

# **The Truth-Seeker's Handbook: A Science-Based Guide**

**(2<sup>nd</sup> edition)**



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**Dr. Gleb Tsipursky**

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# ***Dedication and Acknowledgment***

*This book is dedicated to all my clients whose insights and feedback greatly improved the content of this book. Thanks for making it possible!*





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# ***Introduction***

"You can't handle the truth!"  
- *A Few Good Men* (1992)

There's a reason that this movie quote became a cultural touchstone. These words speak to a deep tension within us as individuals and within organizations as a whole. We may think we want the truth, but sometimes the facts can be difficult to handle, causing us very unpleasant emotions. Our minds tend to flinch away from these facts, preferring instead to seek out the comfort of our pre-existing beliefs.

What separates true leaders – at every level of an organization – from just those with titles is the ability to face these unpleasant facts, handle the uncomfortable emotions evoked, and take the needed steps to accomplish the organization's priorities. Being a truth-seeker involves undertaking the sometimes-difficult work of expanding one's comfort zone and challenging one's pre-existing notions for the sake of seeing the truth of reality. If you are not prepared to put some labor into this endeavor, I recommend you put this book down and turn to something better suited to your preferences. If you are, read onward!

For those who read onward, I want you to know that the effort you put into truth-seeking will be very much worth it. Even from a purely emotional perspective, a more clear view of reality will pay great dividends down the road. Sticking to pre-existing beliefs that do not align with reality causes us to develop unrealistic expectations, and we inevitably grow stressed, anxious, and depressed when our bubble is popped by the sharp needle of reality. So while it might not be pleasant to face the facts in the moment, in the long run you will be much better off in getting to the unpleasant realizations quickly, updating your beliefs to match the facts, and aligning your emotions to a more accurate understanding of reality.

Of course, the emotional payoff is just one part of the benefit you gain in orienting toward inconvenient truths instead of comfortable falsehoods. Perhaps an even bigger benefit comes from avoiding bad decisions.

Everything in our lives, personal and professional, results from our decisions. Making good decisions depends on us having the right information. Did you ever hear the acronym GIGO? That stands for “garbage in, garbage out” and stems from the field of information technology in reference to computers producing the wrong output if they get fed bad information. Our brains are in essence

organic computers that make decisions based on the information they get. If we feed them bad information based on us holding false beliefs, we will make bad decisions, in our private and professional lives.

These bad decisions are costly. In our everyday life, bad decisions cause us to lose money, time, relationships, health, and happiness. Making bad decisions in the workplace results in our organizations losing money, time, and reputation, as well as undermining teamwork and employee morale.

Now, you may not want to hold false beliefs and suffer the consequent unrealistic expectations or bad decisions. However, avoiding false beliefs is not easy. Research shows that false beliefs and their consequences come from faulty wiring in our brains that causes flawed thinking, feeling, and behavior patterns: what the scientific literature calls cognitive biases.

When I began to learn about this field while pursuing my doctoral degree, what surprised me most was that much of our bad decision-making comes from failing to understand the role of emotions in making decisions. I thought of myself as a relatively unemotional person, one who lets his

cold analysis determine his behavior. Boy, was I wrong!

Fortunately, recent scholarship shows we can address these problems by using debiasing strategies discovered by scholars in behavioral science fields to address these cognitive biases. Unfortunately, much of this research is trapped in dry academic papers in journals read only by other academics.

To me, this situation is intolerable. It is appalling to see these resources that can address some of the worst problems we face confined to so few. My knowledge of this situation comes from my professional experience as a scholar specializing in truth-seeking, rational thinking, and wise decision-making in business and other spheres. I researched these topics as a professor at The Ohio State University, specializing in the history of behavioral science.

While pursuing my scholarly career, I began to speak about decision-making and emotional and social intelligence outside of academia. My keynotes and seminars drew widespread acclaim and top marks from audiences, leading to speaking engagements at prominent associations and companies. Forward-looking leaders soon began to hire me as a consultant and executive coach before launching

major new projects, to improve current processes and team culture, and to avoid future catastrophes. You can learn more about my work in that sphere on my website, [GlebTsipursky.com](http://GlebTsipursky.com).

My ability to communicate research-based strategies clearly and eloquently, and adapt them to business realities, resulted in my work being featured in over 400 articles in a variety of venues, such as *Inc. Magazine*, *Time*, *Newsweek*, *Scientific American*, *Psychology Today*, *The Conversation*, *Salon*, *Business Insider*, *Government Executive*, *Lead Change Group*, *New York Daily News*, *The Plain Dealer*, *The Dallas Morning News*, *Sun-Sentinel*, *Arkansas Democrat-Gazette*, *Buffalo News*, *Inside Higher Ed*, *The Huffington Post*, and *The Chronicle of Philanthropy*. I appeared in over 350 guest interviews, including US televised appearances on CBS News and internationally on the Australian Broadcasting Network; US and international radio appearances, including on NPR, WBAI, KGO, 700WLW, KRLD, AM980, KCRW, KSKQ, KXNT, KTRS, WMNF, WSNY, WCOL, and Sunny 95; and a wide variety of podcasts and videocasts.

I wrote several books, and two became #1 Amazon bestsellers, *Find Your Purpose Using Science* and *The Truth-Seeker's Handbook: A Science-Based Guide*. You are currently holding the revised, second edition of the latter book, which includes more resources on

effective decision-making, based on the requests of my clients who read the first one.

Passionate about helping organizations and leaders avoid disaster, I also use my expertise to advance global flourishing through civic activities. To that end, I co-founded the nonprofit Intentional Insights in 2014 to create content promoting truth-seeking, rational thinking, and wise decision-making for a broad audience. I donate my time and my money – including over half the proceeds of this book – to Intentional Insights.

If you wish to join me as a fellow truth-seeker, you can take advantage of the research-based strategies described in this book to address the cognitive biases present in all of us. We need to avoid trusting our gut reactions and recognize when our intuitions steer us awry. While we all are impacted by such problematic mental patterns to some degree, studies show that each of us has our own peculiar mix, and it is up to you to learn your own vulnerabilities and how to address them. Likewise, you can learn and integrate strategies for addressing these cognitive biases into your organizations.

For instance, I suffer from optimism bias, the belief that everything will go well. As a result, if I just go with my intuitions, I will take excessive risks, not



prepare for potential problems, and run into many bad situations when interacting with others due to assuming the best of people, which is unfortunately not a safe assumption. This failure mode resulted in a systematic pattern both of unmet expectations and bad decisions that has seriously harmed my quality of life in the past. Only by using the debiasing strategies discussed in this book have I been able to address this debilitating problem.

My wife, on the other hand, suffers from pessimism bias, the belief that everything will go poorly. If I think the grass is always green on the other side, she thinks the grass is always yellow on the other side; if I see light at the end of the tunnel, she worries that it is an oncoming train. Her problem can be as bad in its own way as my problem.

As you can imagine, due to this difference, our conversations can sometimes grow heated. This is especially so since she is my business partner. However, knowing the debiasing strategies has helped us turn this source of conflict into an opportunity to help correct for each other's biased perspectives. Indeed, together we are better than the sum of our parts, as we can maximize taking advantage of opportunities with my optimism and addressing potential problems with her pessimism for the benefits of our business.

The external perspective we provide to each other is one of the many strategies that can be used to deal with the false beliefs caused by cognitive biases. While research on a variety of mental states such as happiness suggests that about half of our mental patterns are determined by our genes, the other half is determined by our environment and experience. The large majority of the population let their thought, feeling, and behavior patterns drift on the waves of life experience, buffeted by the storms of dramatic events and floating calmly in more quiet times.

Yet as a truth-seeker, you can choose to take control of your environment and life experience to develop the kind of thought, feeling, and behavior patterns that would most align with an accurate view of reality. By doing so, you can improve your decision-making in your private and professional life, and avoid the kind of emotional turmoil that comes with suddenly realizing you've been leading a life with blinders on for the last decade.

In fact, research shows that just a single training intervention can substantially improve one's ability to see reality clearly and avoid bad decisions. According to research on this topic, this ability – called rationality – is just as important as intelligence. However, while it is very difficult to improve one's intelligence level, it is quite simple to

improve one's rationality. This book has the pragmatic tools to help you improve your rationality by discarding false beliefs and developing a more clear vision of reality, as well as integrate these strategies into your organization.

The book is organized into three sections. The first outlines truth-seeking strategies pursued primarily for the sake of avoiding false beliefs within yourself. The second deals with truth-seeking in relation to other people. Finally, the third describes two strategies for individuals, teams, and organizations to see the truth and thus make better decisions.

So read onward, fellow truth-seeker, and I look forward to hearing any feedback you may have. You can email me at [gleb@intentionalinsights.org](mailto:gleb@intentionalinsights.org).



## ***Section 1:***

# ***Individual Truth- Seeking***



# **Chapter 1:**

## **What True Leaders Know About Emotional Intelligence**

True leaders at any level of the totem pole show their leadership primarily through managing their own emotions. After all, the only things we can control in life are our thoughts, feelings, and behaviors, and if we can manage those, we can lead our organizations from anywhere in the hierarchy. Leaders gain such emotional intelligence in large part by learning about the science-based patterns about how our emotions work and how to manage them.

If we know about how our minds work, we can be intentional about influencing our own thinking and feeling patterns. We can evaluate reality more clearly, make better decisions, and improve our ability to achieve goals, thus gaining greater agency, the quality of living intentionally.

Ok, then how do our minds work? Intuitively, our mind feels like a cohesive whole. We perceive ourselves as intentional and rational thinkers. Yet cognitive science research shows that in reality, the intentional part of our mind is like a little rider on top of a huge elephant of emotions and intuitions.

Roughly speaking, we have two thinking systems. Daniel Kahneman, who won the Nobel Prize for his research on behavioral economics, calls them System 1 and 2, but I think “autopilot system” and “intentional system” describe these systems more clearly. The term “intentional system” in particular is useful as a way of thinking about living intentionally and thereby gaining greater agency.

**The autopilot system** corresponds to our emotions and intuitions. Its cognitive processes take place mainly in the amygdala and other parts of the brain that developed early in our evolution. This system guides our daily habits, helps us make snap decisions, and reacts instantly to dangerous life-and-death situations, like saber-toothed tigers, through the freeze, fight, or flight stress response. While helping our survival in the past, the fight-or-flight response is not a great fit for modern life. We



have many small stresses that are not life-threatening, but the autopilot system treats them as tigers, producing an unnecessarily stressful everyday life experience that undermines our mental and physical well-being. Moreover, while the snap judgments resulting from intuitions and emotions usually feel “true” because they are fast and powerful, they sometimes lead us wrong, in systematic and predictable ways.

**The intentional system** reflects our rational thinking, and centers around the prefrontal cortex, the part of the brain that evolved more recently. According to recent research, it developed as humans started to live within larger social groups. This thinking system helps us handle more complex mental activities, such as managing individual and group relationships, logical reasoning, probabilistic thinking, and learning new information and patterns of thinking and behavior. While the automatic system requires no conscious effort to function, the intentional system takes deliberate effort to turn on and is mentally tiring. Fortunately, with enough motivation and appropriate training, the intentional system can turn on in situations where

the autopilot system is prone to make errors, especially costly ones.

Here's a quick comparison of the two systems:

Autopilot System	Intentional System
<ul style="list-style-type: none"><li>• Fast, intuitive, emotional self</li><li>• Requires no effort</li><li>• Automatic thinking, feeling, and behavior habits</li><li>• Mostly makes good decisions, 80% of time</li><li>• However, prone to some predictable and systematic errors</li></ul>	<ul style="list-style-type: none"><li>• Conscious, reasoning, mindful self</li><li>• Takes intentional effort to turn on + drains mental energy</li><li>• Used mainly when we learn new information, and use reason and logic</li><li>• Can be trained to turn on when it detects Autopilot System may be making error</li></ul>

The autopilot system is like an elephant. It's by far the more powerful and predominant of the two systems. Our emotions can often overwhelm our rational thinking. Moreover, our intuitions and habits determine the large majority of our life, which we spend in autopilot mode. And that's not a bad thing at all – it would be mentally exhausting to think intentionally about our every action and decision.

The intentional system is like the elephant rider. It can guide the elephant deliberately to go in a direction that matches our actual goals. Certainly, the elephant part of the brain is huge and unwieldy, slow to turn and change, and stampedes at threats. But we can train the elephant. Your rider can be an elephant whisperer. Over time, you can use the intentional system to change your automatic thinking, feeling, and behavior patterns, and become a better agent in achieving your goals.

I hope this information fills you with optimism. It does me. This is what Intentional Insights is all about – learning how to be intentional about using your rider to guide your elephant.

### **Questions to Consider**

- What steps do you think you can take to evaluate where your emotions and intuitions may lead you to make mistakes?
- What can you do to be prepared to deal with these situations in the moment?
- What can you do to be an elephant whisperer and retrain your elephant to have thinking, feeling, and behavior patterns that match your long-term goals?

## References

- Baumeister, R. F., & Tierney, J. (2012). *Willpower: Rediscovering the greatest human strength*.
- Dennett, D. (2009). Intentional systems theory. *The Oxford handbook of philosophy of mind*, 339-350.
- Heath, C., & Heath, D. (2010). *Switch: How to change when change is hard*.
- Kahneman, D. (2011). *Thinking, fast and slow*.
- Stanovich, K. (2011). *Rationality and the reflective mind*.

## **Chapter 2:**

# **Where Do Our Mental Maps Lead Us Astray?**

So imagine you are driving on autopilot, as we all do much of the time. Suddenly the car in front of you cuts you off quite unexpectedly. You slam your brakes and feel scared and indignant. Maybe you flash your lights or honk your horn at the other car. What's your gut feeling about the other driver? I know my first reaction is that the driver is rude and obnoxious.

Now imagine a different situation. You're driving on autopilot, minding your own business, and you suddenly realize you need to turn right at the next intersection. You quickly switch lanes and suddenly hear someone behind you honking their horn. You now realize that there was someone in your blind spot and you forgot to check it in the rush to switch lanes. So you cut them off pretty badly. Do you feel that you are a rude driver? The vast majority of us do not. After all, we did not deliberately cut that car

off, we just failed to see the driver. Or let's imagine another situation: say your friend hurt herself and you are rushing her to the emergency room. You are driving aggressively, cutting in front of others. Are you a rude driver? Not generally. You're merely doing the right thing for the situation.

So why do we give ourselves a pass, while attributing an obnoxious status to others? Why does our gut always make us out to be the good guys, and other people bad guys? Clearly, there is a disconnect between our gut reaction and reality here. It turns out that this pattern is not a coincidence. Basically, our immediate gut reaction attributes the behavior of others to their personality and not to the situation in which the behavior occurs. The scientific name for this type of error in thinking and feeling is called the fundamental attribution error, also called the correspondence bias. So if we see someone behaving rudely, we immediately and intuitively feel that this person IS rude. We don't automatically stop to consider whether an unusual situation may cause someone to act this way. With the driver example, maybe the person who cut you off did not see you. Or maybe they were driving their friend to the emergency room. But that's not what our automatic

reaction tells us. On the other hand, we attribute our own behavior to the situation, and not our personality. Much of the time, we feel like we have valid explanations for our actions.

Learning about the fundamental attribution error helped me quite a bit. I became less judgmental about others. I realized that the people around me were not nearly as bad as my gut feelings immediately and intuitively assumed. This decreased my stress levels, and I gained more peace and calm. Moreover, I realized that my intuitive self-evaluation is excessively positive and that in reality I am not quite the good guy as my gut reaction tells me. Additionally, I realized that those around me who are unaware of this thinking and feeling error, are more judgmental of me than my intuition suggested. So I am striving to be more mindful and thoughtful about the impression I make on others.

The fundamental attribution error is one of many feeling patterns. It is certainly very helpful to learn about all of these errors, but it's hard to focus on avoiding all of them in our daily life. A more effective strategy for evaluating reality more intentionally to have more clarity and thus gain greater agency is known as "map and territory." This

strategy involves recognizing the difference between the mental map of the world that we have in our heads and the reality of the actual world as it exists – the territory.

For myself, internalizing this concept has not been easy. It's been painful to realize that my understanding of the world is by definition never perfect, as my map will never match the territory. At the same time, this realization was strangely freeing. It made me recognize that no one is perfect, and that I do not have to strive for perfection in my view of the world. Instead, what would most benefit me is to try to refine my map to make it more accurate. This more intentional approach made me more willing to admit to myself that though I intuitively and emotionally feel something is right, I may be mistaken.

At the same time, the concept of map and territory makes me really optimistic, because it provides a constant opportunity to learn and improve my assessment of the situation. Others to whom I taught this concept in videotaped workshops for Intentional Insights also benefited from learning about both the fundamental attribution error and the idea of map and territory. One workshop



participant wrote in an anonymous feedback form: “with relation to the fundamental attribution error, it can give me a chance to keep a more open mind. Which will help me to relate to others more, and view a different view of the “map” in my head.”

Now, what are the strategies for most effectively learning this information, and internalizing the behaviors and mental patterns that can help you succeed? Well, educational psychology research illustrates that engaging with this information actively, personalizing it to your life, linking it to your goals, and deciding on a plan and specific next steps you will take are the best practices for this purpose.

### **Questions to Consider**

- What do you think of the concept of map and territory?
- How can it be used to address the fundamental attribution error?
- Where can the notion of map and territory help you in your life?
- What challenges might arise in applying this concept, and how can these challenges be addressed?

- What plan can you make and what specific steps can you take to internalize these strategies?

## References

- Ayres, I. (2010). *Carrots and sticks: Unlock the power of incentives to get things done*.
- Schunk, D. H. (1989). Social cognitive theory and self-regulated learning. *Self-regulated learning and academic achievement: Theory, research, and practice*, 83-110.
- Gilbert, D. T., & Malone, P. S. (1995). The correspondence bias. *Psychological bulletin*, 117(1), 21.
- Shuell, T. J. (1986). Cognitive conceptions of learning. *Review of educational research*, 56(4), 411-436.
- Shuell, T. J. (1990). Phases of meaningful learning. *Review of educational research*, 60(4), 531-547.

## **Chapter 3:**

# **When Should You Go With Your Gut In Everyday Life?**

You're walking out of a restaurant with your date when you suddenly feel a strong urge to duck your head. You realize that doing so will make you look silly in front of your date, who you really like. Do you duck or not?

This is a great time to ignore the possibility of looking foolish and go with your gut. There's a good chance that your peripheral vision picked up on something aiming at your head that you didn't have time to process consciously. Maybe some kids are playing baseball nearby and the ball is heading your way, or maybe a pine cone is falling from the tree just outside the restaurant.

The bigger point is that you should generally trust your gut in situations where you're in physical

danger. Even if the object is not going to hit your head, you don't want to take that chance with the most important part of your body. The same goes for when you're crossing the street and have a sudden urge to leap away.

Why should you trust your gut in such situations? This quick, automatic reaction of the body results from the Autopilot System of thinking, also known as System 1, which is one of the two systems of thinking in our brain. It makes good decisions about 70-80% of the time, but commits certain systematic errors, which scholars call cognitive biases. This Autopilot System is great for protecting you from physical danger, as evolution optimized this part of the brain to ensure your survival, so your default reaction should be to trust it.

There are some rare occasions in which it goes awry even when dealing with physical danger. For example, you shouldn't slam on your brakes when you're skidding on the road, despite what your intuitions tell you. Our instincts will not always be spot-on with physical dangers having to do with modern life. It's important to learn about these exceptions to going with your gut so you can protect

yourself from physical dangers associated with the twenty first-century life.

Also note that some psychological conditions, such as Posttraumatic Stress Disorder, can hijack the Autopilot System and make it less reliable. In these cases, where false perceptions of danger are plentiful, simply trusting the Autopilot System is unwise.

These are the times when you need to use your Intentional System, the more rational part of your brain, to override the intuitive one. It takes effort to turn it on, but it can catch and override thinking errors committed by the Autopilot System. This way, we can address the systematic mistakes made by our brains in our everyday lives.

Keep in mind that the Autopilot System and the Intentional System are simplifications of more complex processes, and that there is debate about them in the scientific community. However, for most purposes, these simplifications are very useful in helping us manage our thoughts, feelings, and behaviors.

Let's consider a less dangerous aspect of daily life. You're at an office store to get some supplies for your home office, and are choosing what white-out to get. You rarely use it and have no favorite brand, so the choices seem overwhelming. How much time and energy does it make sense to invest in this decision?

Go with your gut on this one. Since you use white-out rarely, it's not a good idea to invest time and effort into evaluating all the choices available and coming up with the best one. Just make a reasonable decision that satisfies your needs and get all the other stuff you want as well. This approach applies to all situations where you're making one-time decisions about minor matters. You'll waste a lot of time and cognitive resources optimizing rather than satisficing - making a satisfactory rather than an optimal choice.

Now, what about everyday life decisions that are not one-time but regular? For instance, say you eat cereal for breakfast every day. In that case, you definitely don't want to go with your gut and grab the first satisfactory cereal box you see.

Consider the amount of cereal you eat in a year. Say you go through a box a week. That's over 50 boxes a year! Imagine them all stacked up in a 3-stories tall pile. That's a lot of cereal. However, that's also only a year's worth. Consider how much cereal you'll eat in your lifetime. Now you're getting into skyscraper territory. Envision the nutrients you get and the amount of money it costs. Using such probabilistic thinking, this is a great area to optimize rather than satisfy.

Evaluate the factors that are important to you about cereal: taste, nutrition, cost, and anything else you can think of. Consider and rank the importance of all these elements. Then, compare all the cereals using these factors. Finally, choose one (or more if you want to vary the flavors).

Also, consider whether you can get them cheaper in bulk online than through the local grocery store, depending on the storage area in your home. For example, I eat a lot of tomato sauce and order it in bulk through Amazon, which gives me a 15% discount through their Subscribe & Save service.

The same approach applies to any life decision that you make systematically or anything which you do

regularly. If you used white-out a lot, it might be worth the time to pick the best white-out. If you do journaling daily, it's a good idea to choose a nice journal and good writing implement, even if it takes more time to select them and they are more expensive. The same goes for your office chair—you'll spend a lot more money and time in the long-run addressing back problems than if you spend some upfront choosing a good chair! This strategy of decision-making, called multiple-attribute utility theory, applies to any instance where it's worthwhile for you to take the time to make a reasoned decision where you weigh multiple attributes.

However, don't spend too much time trying to get information beyond the minimal amount needed to make a good decision. Some people fall into this trap when first learning about this technique, a thinking error called information bias—trying to get information beyond that necessary to make a decision. In general, balance the need to get appropriate information with that of making a timely decision to escape the trap of "analysis paralysis."

The broader principle here is that we are not evolutionarily adapted for a situation where we can



make systematic, long-term choices about what to get. Our Autopilot System is optimized for short-term survival. It makes good decisions most of the time, and it's great for "goon enough," one-time, everyday life decisions on minor matters.

However, for anything that is a systematic, repeating choice or something you work with regularly such as an office chair or a pen, it will sometimes steer you in the wrong direction. In those cases, it's wise to invest the time, cognitive resources, and money in using a more intentional approach to make the best decision for your long-term happiness and success.

### **Questions to Consider:**

- Where in your everyday life would you benefit from going with your gut more often?
- Where in your everyday life would you benefit from using more Intentional System thinking?
- What specific changes will you make after reading this piece?

### **References**

- Arkes, H. R. (2016). A levels of processing interpretation of dual-system theories of judgment and decision-making. *Theory & Psychology*, 26(4), 459-475.
- Baron, J. (2000). *Thinking and deciding*.

Kahneman, D. (2011). *Thinking, fast and slow*.

Stanovich, K. (2011). *Rationality and the reflective mind*.

## **Chapter 4:**

# **When Should You Go With Your Gut In Professional Interactions?**

Let's say you're interviewing a new applicant for a job and you feel something is off. You can't quite put your finger on it, but you're a bit uncomfortable with this person. She says all the right things, her resume is great, she'd be a perfect hire for this job – except your gut tells you otherwise.

### **Should You Go with Your Gut?**

In such situations, your default reaction should be to be suspicious of your gut. Research shows that job candidate interviews are actually poor indicators of future job performance.

Unfortunately, most employers tend to trust their guts over their heads and give jobs to people they

like and perceive as part of their ingroup, rather than simply the most qualified applicant. In other situations, however, it actually does make sense to rely on gut instinct to make a decision.

Yet research on decision-making shows that most business leaders don't know when to rely on their gut and when not to. While most studies have focused on executives and managers, research shows the same problem applies to doctors, therapists and other professionals.

This is the kind of challenge I encounter when I consult with companies on how to better handle workplace relationships. Research that I and others have conducted on decision-making offers some clues on when we should – and shouldn't – listen to our guts.

## **The Gut or the Head**

The reactions of our gut are rooted in the more primitive, emotional and intuitive part of our brains that ensured survival in our ancestral environment. Tribal loyalty and immediate recognition of friend or foe were especially useful for thriving in that environment.

In modern society, however, our survival is much less at risk, and our gut is more likely to compel us to focus on the wrong information to make workplace and other decisions.

For example, is the job candidate mentioned above similar to you in race, gender, socioeconomic background? Even seemingly minor things like clothing choices, speaking style and gesturing can make a big difference in determining how you evaluate another person. According to research on nonverbal communication, we like people who mimic our tone, body movements and word choices. Our guts automatically identify those people as belonging to our tribe and being friendly to us, raising their status in our eyes.

This quick, automatic reaction of our emotions represents the autopilot system of thinking, one of the two systems of thinking in our brains. It makes good decisions most of the time but also regularly makes certain systematic thinking errors that scholars refer to as cognitive biases.

The other thinking system, known as the intentional system, is deliberate and reflective. It takes effort to turn on but it can catch and override the thinking errors committed by our autopilots. This way, we

can address the systematic mistakes made by our brains in our workplace relationships and other areas of life.

Keep in mind that the autopilot and intentional systems are only simplifications of more complex processes, and that there is debate about how they work in the scientific community. However, for everyday life, this systems-level approach is very useful in helping us manage our thoughts, feelings and behaviors.

In regard to tribal loyalty, our brains tend to fall for the thinking error known as the “halo effect,” which causes some characteristics we like and identify with to cast a positive “halo” on the rest of the person, and its opposite the “horns effect,” in which one or two negative traits change how we view the whole. Psychologists call this “anchoring,” meaning we judge this person through the anchor of our initial impressions.

## **Overriding the Gut**

Now let's go back to our job interview example.

Say that the person went to the same college you did. You are more likely to hit it off. Yet, just because a person is similar to you does not mean she will do a good job. Likewise, just because someone is skilled at conveying friendliness does not mean she will do well at tasks that require technical skills rather than people skills.

The research is clear that our intuitions don't always serve us well in making the best decisions (and, for a business person, bringing in the most profit). Scholars call intuition a troublesome decision tool that requires adjustments to function properly. Such reliance on intuition is especially harmful to workplace diversity and paves the path to bias in hiring, including in terms of race, disability, gender and sex.

Despite the numerous studies showing that structured interventions are needed to overcome bias in hiring, unfortunately business leaders and HR personnel tend to over-rely on unstructured interviews and other intuitive decision-making practices. Due to the autopilot system's overconfidence bias, a tendency to evaluate our decision-making abilities as better than they are, leaders often go with their guts on hires and other

business decisions rather than use analytical decision-making tools that have demonstrably better outcomes.

A good fix is to use your intentional system to override your tribal sensibilities to make a more rational, less biased choice that will more likely result in the best hire. You could note ways in which the applicant is different from you – and give them “positive points” for it – or create structured interviews with a set of standardized questions asked in the same order to every applicant.

So if your goal is to make the best decisions, avoid such emotional reasoning, a mental process in which you conclude that what you feel is true, regardless of the actual reality.

### **When Your Gut May Be Right**

Let's take a different situation. Say you've known someone in your work for many years, collaborated with her on a wide variety of projects and have an established relationship. You already have certain stable feelings about that person, so you have a good baseline.



Imagine yourself having a conversation with her about a potential collaboration. For some reason, you feel less comfortable than usual. It's not you – you're in a good mood, well-rested, feeling fine. You're not sure why you're not feeling good about the interaction since there's nothing obviously wrong. What's going on?

Most likely, your intuitions are picking up subtle cues about something being off. Perhaps that person is squinting and not looking you in the eye or smiling less than usual. Our guts are good at picking up such signals, as they are fine-tuned to pick up signs of being excluded from the tribe.

Maybe it's nothing. Maybe that person is having a bad day or didn't get enough sleep the night before. However, that person may also be trying to pull the wool over your eyes. When people lie, they behave in ways that are similar to other indicators of discomfort, anxiety and rejection, and it's really hard to tell what's causing these signals.

Overall, this is a good time to take your gut reaction into account and be more suspicious than usual.

The gut is vital in our decision-making to help us notice when something might be amiss. Yet in most situations when we face significant decisions about workplace relationships, we need to trust our head more than our gut in order to make the best decisions.

### **Questions to Consider:**

- Where in your professional life would you benefit from going with your gut more often?
- Where in your professional life would you benefit from using more Intentional System thinking?
- What specific changes will you make after reading this piece?

### **References**

- Arntz, A., Rauner, M., & Van den Hout, M. (1995). "If I feel anxious, there must be danger": Ex-consequentia reasoning in inferring danger in anxiety disorders. *Behaviour Research and Therapy*, 33(8), 917-925.
- Barrick, M. R., Shaffer, J. A., & DeGrassi, S. W. (2009). What you see may not be what you get: Relationships among self-presentation tactics and ratings of interview and job performance. *Journal of Applied Psychology*, 94(6), 1394-1411.

- Conger, J. A., & Kanungo, R. N. (1987). Toward a behavioral theory of charismatic leadership in organizational settings. *Academy of management review*, 12(4), 637-647.
- Drehmer, D. E., & Bordieri, J. E. (1985). Hiring decisions for disabled workers: The hidden bias. *Rehabilitation Psychology*, 30(3), 157.
- Francisco, J. M., & Burnett, C. A. (2008). Deliberate intuition: giving intuitive insights their rightful place in the creative problem solving thinking skills model. In *Creativity and Innovation Management Journal Conference*.
- Halevy, N., Bornstein, G., & Sagiv, L. (2008). "In-group love" and "out-group hate" as motives for individual participation in intergroup conflict: A new game paradigm. *Psychological science*, 19(4), 405-411.
- Isaac, C., Lee, B., & Carnes, M. (2009). Interventions that affect gender bias in hiring: a systematic review. *Academic medicine: journal of the Association of American Medical Colleges*, 84(10), 1440.
- Kahneman, D. (2011). *Thinking, fast and slow*.
- Key, M. R. (1975). *Paralanguage and Kinesics (Nonverbal Communication)*.
- Klayman, J., Soll, J. B., González-Vallejo, C., & Barlas, S. (1999). Overconfidence: It depends on how, what, and whom you ask. *Organizational behavior and human decision processes*, 79(3), 216-247.

- Kutschera, I., & Ryan, M. H. (2009). Implications of intuition for strategic thinking: Practical recommendations for gut thinkers. *SAM Advanced Management Journal*, 74(3), 12.
- Miller, C. C., & Ireland, R. D. (2005). Intuition in strategic decision making: friend or foe in the fast-paced 21st century?. *The Academy of Management Executive*, 19(1), 19-30.
- Oppenheimer, D. M., LeBoeuf, R. A., & Brewer, N. T. (2008). Anchors aweigh: A demonstration of cross-modality anchoring and magnitude priming. *Cognition*, 106(1), 13-26.
- Nisbett, R. E., & Wilson, T. D. (1977). The halo effect: Evidence for unconscious alteration of judgments. *Journal of personality and social psychology*, 35(4), 250.
- Patton, J. R. (2003). Intuition in decisions. *Management decision*, 41(10), 989-996.
- Richerson, P. J., & Boyd, R. (2001). The evolution of subjective commitment to groups: A tribal instincts hypothesis. *Evolution and the Capacity for Commitment*, 3, 186-220.
- Stanovich, K. (2011). *Rationality and the reflective mind*.

# **Chapter 5:**

## **How to Protect Yourself from False Beliefs**

Kanisha grew up in a Democratic household in Memphis, Tennessee. As far as she remembers, her family and friends always supported leftist candidates. She watched liberal-leaning television programs. She read leftist newspapers. Her Facebook friends posted overwhelmingly liberal-friendly news articles, and Facebook's news feed algorithm edited out the articles posted by her few conservative friends. Google and other search engines also sent her similar leftist information. Kanisha lives in what is known as a filter bubble, in which she rarely sees information at odds with her views

So what's your guess on how she votes?

Even when Kanisha learns about evidence for perspectives other than her own, she generally does

not give due weight to that information. For instance, when her teacher offered a balanced perspective on the pros and cons of using religion to guide public policy, Kanisha decided to Google the phrase “Why is using religion to guide public policy the right thing to do?”

Do you think the articles that came up helped her gain the most accurate perspective on this politically sensitive issue? By phrasing her Google search that way, Kanisha did not give due consideration to other perspectives. This is characteristic of Kanisha's behavior: when she hears something that makes her question her beliefs, she looks for ways to protect them, as opposed to searching for the truth.

### **Confirming Our Biases**

Now, I don't mean to pick on Kanisha. This technology-enabled filter bubble is a characteristic of the personalization of the web. It affects many of us. This filter bubble has combined with another novel aspect of the Internet, how easily new media sources can capture our attention. Websites, bloggers, and so on tend to have lower standards for neutrality and professionalism than traditional news sources. These are key contributors to

the polarization of political discourse we've seen in recent years.

I have to acknowledge that sometimes I myself am guilty of falling for the filter bubble effect. However, I fight the effect with my knowledge of cognitive biases (thinking errors made by our autopilots) and strategies for dealing with them.

When Kanisha, myself, and others ignore information that doesn't fit with our previous beliefs, we are exhibiting a thinking error called confirmation bias. Our brains tend to ignore or forget evidence that is counter to our current perspective, and will even twist ambiguous data to support our viewpoint and confirm our existing beliefs.

The stronger we feel about an issue, the stronger this tendency. At the extreme, confirmation bias turns into wishful thinking, when our beliefs stem from what we want to believe, instead of what is true. Confirmation bias is a big part of the polarization in our opinions, in politics and other areas of life.

## **Be A Proud Flip-Flopper!**

So how do you deal with confirmation bias and other thinking errors? One excellent strategy is to focus on updating your beliefs. This concept has helped me and many others who attended Intentional Insights workshops, such as this videotaped one, to deal with thinking errors. To employ this strategy, it helps to practice mentally associating positive emotions such as pride and excitement with the decision to change our minds and update our beliefs based on new evidence.

Imagine how great it would be if Kanisha and everybody else associated positive emotions and felt proud of changing their minds about political issues. Politics would be so much better if everyone updated their beliefs based on new information. Right now, politicians are criticized for changing their minds with the harsh term flip-flopping. How wonderful would it be if not only the citizenry but also our politicians flip-flopped based on wherever the evidence pointed. We should all be proud flip-floppers!



## **Protecting Yourself From False Beliefs**

Being proud of changing our minds is not intuitive, because the emotional part of the brain has a tendency to find changing our minds uncomfortable. It often persuades us to reject information that would otherwise lead us to rethink our opinions. However, we can use the rational part of our mind to train the emotional one to notice confusion, re-evaluate cached thinking and other shortcuts, revise our mental maps, and update our beliefs.

In addition to associating positive emotions with changing your mind, you can use these habits to develop more accurate beliefs:

- 1) Deliberately seek out contradictory evidence to your opinion on a topic, and praise yourself after giving that evidence fair consideration.
- 2) Consider the best possible form of arguments against your position, and be open to changing your mind if those other arguments are better than yours.

3) Focus on updating your beliefs on controversial and emotional topics, as these are harder for the human mind to manage well.

It's especially beneficial to practice changing your mind frequently. Recent research shows that those who update their beliefs more often are substantially more likely to have more accurate beliefs. So practice asking yourself systematically about whether you should change your mind based on new evidence.

Taking all of these steps and feeling good about them will help you evaluate reality accurately and thus gain agency to achieve your life goals.

### **Questions to Consider**

- When, if ever, has confirmation bias and associated thinking errors steered you wrong? What consequences resulted from these thinking errors?
- How can you apply the concept of updating beliefs to improve your thinking? What are other strategies you have found to help you change your mind and gain a more clear evaluation of reality?
- How do you think reading this article has influenced your thinking about evaluating

reality? What specific steps do you plan to take as a result of reading this article to shift your thinking and behavior patterns?

## References

- Baum, M. A., & Groeling, T. (2008). New media and the polarization of American political discourse. *Political Communication*, 25(4), 345-365.
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of general psychology*, 2(2), 175.
- Tetlock, P. E., & Gardner, D. (2016). *Superforecasting: The art and science of prediction*. Random House.



## **Chapter 6:**

# **Failing Your Way to Success!**

Don't you hate finding out you made a mistake? I do. I'm proud of doing things well, and avoiding mistakes. Mistakes feel terrible to me. I remember my boss telling me about a serious mistake I made when calculating students' final course grades in my job as a professor. I was sitting at home after grading the final papers of the semester, and was already pretty tired. I just wanted to finish up all my teaching responsibilities, and go on my summer break (yes, professors love summer breaks just as much as the students). So I went on the course website, had the course management system add up all the grades, and submitted them.

I was so embarrassed when my boss told me I forgot to give students bonus grades for additional assignments. It never happened to me before. It was a truly face-palm moment.

## **Emotions and Mistakes**

When I found out I made that mistake, my emotional self just wanted to curl up inside. I wanted to run and hide, and not deal with negative emotions associated with that mistake. This common thinking error has been studied in relation to mistakes in financial decisions and many other areas.

It's even worse when our emotional self gets aggressive and defensive in response to finding out we made a mistake. Did this ever happen to you? I know it did to me.

For instance, in the early stages of founding Intentional Insights, I did not have much practice in how to coordinate people, and made some mistakes. Because I was not watching out for this problem, I did not make sure to avoid aggressive or defensive responses to learning I was wrong. As a result, I harmed my relationships with some others also passionate about this great cause.

As an example, I was so enthusiastic about Intentional Insights that I forgot that others were not quite as passionate as myself, and

misinterpreted one person's agreement to help out as a commitment to do a lot of volunteer work. When that person failed to deliver on the high expectations that I set, I grew upset, and that person was upset with my reaction – which resulted from me failing at their mind. When others told me about these mistakes, my emotional self wanted to lash out against the bearer of bad news, and not against myself for having made the mistakes. This type of thinking error is known as “shoot the messenger,” meaning attributing the blame for the bad news associated with the mistake to the person who brought the message.

Did you ever experience someone with whom you shared some bad news becoming irrationally angry with you? From the other side, did you ever become angry at someone who gave you bad news? Then you know what I mean.

Such thinking errors result in many challenges for myself and others. Trying to ignore the mistake and pretend it didn't happen is not very productive for facing the truth of reality and thus gaining agency. Yet the vast majority of our social institutions and norms do not encourage acknowledging mistakes or learning from them. For

example, research indicates that hundreds of thousands die from preventable medical mistakes. Yet according to a new book by Brian Goldman, an emergency room physician, medicine has a “culture of denial” that prevents doctors from sharing about and learning from their errors. Similar dynamics characterize most other professions despite the benefits associated with learning from our mistakes and from failing our way to success.

### **Strategies for Failing Your Way To Success**

So what are some strategies for dealing with mistakes?

First, we need to overcome the negative emotions of making a mistake. It helps to remember that our mental maps of the world never match the territory of reality, and to notice our confusion as a way of indicating that we have a mistake in our evaluation of the situation, not an indication of the world being wrong (a quite unhelpful conclusion). After all, communication is frequently imperfect and our messages become garbled.

Then, apply the intentional strategy of thinking “**bad news is good news,**” one of the habits in



the Rationality Habits Checklist. In other words, associate positive emotions with finding out that one made a mistake. After all, “what is true is already so,” and the more effectively we overcome the negative emotions, the better we will be at facing the truth of reality, no matter how unpleasant it may be. We can then be well prepared to deal with the situation resulting from the consequence of our mistakes.

How should we do this in practice? Essentially, any time you notice yourself feeling bad after find out you made a mistake, stop and take a couple of deep breaths. Then, remember how good it is to have this knowledge, let go of stress, and then deal with the results of the mistake in the moment. Ideally we can learn to see mistakes as **opportunities** for future success.

After dealing with the consequences of the mistake, try to take advantage of the error and learn what we can from it. I've found success in using a “**Mistakes and Learning**” section as part of my daily journaling. I have a prompt in my journal where I ask myself:

- What kind of mistakes did I make recently?

- Why did I make them?
- What can I learn from them?
- How can I do better in the future?

As a result, I encourage myself to face my own mistakes, get at the reasons for making them, learn from them, and figure out how I can improve my future performance.

This process of learning from mistakes is a lifelong project. It fills me with hope, as it helps me strive to accept the truth, revise my ways of doing things, and optimize my behavior for the future. I fail my way to success!

### **Questions to Consider:**

- When was the last time you noticed or were told of a mistake?
- What did you do about it?
- Do you know how to avoid that mistake in the future?
- What are your general strategies for dealing with mistakes?
- How do you deal with the negative emotions of finding out you made a mistake?
- In what ways do you learn from mistakes?

- How can you apply these strategies in your life, and how do you think you might benefit from doing so?
- What kind of plan can you make and what specific steps can you take to internalize these mental habits?

## References

- Galai, D., & Sade, O. (2006). The “ostrich effect” and the relationship between the liquidity and the yields of financial assets. *The Journal of Business*, 79(5), 2741-2759.
- Goldman, B. (2015). *The Secret Language of Doctors: Cracking the Code of Hospital Culture*.
- James, J. T. (2013). A new, evidence-based estimate of patient harms associated with hospital care. *Journal of patient safety*, 9(3), 122-128.



# **Chapter 7:**

## **Defend Your Happiness Against Emotional Traps!**

Entering that backyard was like going into a lush grove. Shady trees spread their branches around us and protected us from the summer's heat. Oh, and how beautiful the leaves would get in the fall. Can you imagine the full range of colors that would emerge – red, yellow, and orange in all the kaleidoscopic ecstasy of autumn's revel? How could this magical vision fail to deliver our heart's desire?

Walking into this backyard was the single most vivid experience of the house search undertaken by myself and my wife, Agnes Vishnevkin. I imagined myself lounging in the hammock in the peaceful shade of trees, experiencing the calm of a majestic forest. Exhausted after a long, grueling day of house hunting, this yard was the clincher for me and my

wife. We excitedly told our realtor to put a bid in for the house; we couldn't wait to move in.

Little did we know, the backyard was a trap! Why was it a trap? It couldn't deliver on the emotional promises it made! Lounging around in that backyard would be rare. In reality, on my days off, I'm much more likely to go visit my friends or go out with my wife.

I was so motivated by my emotional attachment to one aspect of the house that I disregarded everything else. It was a classic thinking error, called attentional bias. This term refers to our brain's tendency to focus on whatever things in our environment that happen to push our emotional buttons, as opposed to the things that are actually important. Such emotional traps could cost us our long-term happiness when they influence our big decisions, such as getting a new car or, especially, a new home!

Fortunately, Agnes and I avoided this trap. The day after we told our agent to make the offer, we decided to re-evaluate our decision by applying the tools of probabilistic thinking and multi-attribute utility theory to our purchase.

Below is a photo of our calculations. We compared our first-choice house, labeled 170, to our second choice, 450. To avoid excessive emotional attachment to any part of the house, we wrote out the various parts of the house (first column). We then gave each a quality rating on a scale from one to three, one being the lowest and three being the highest. Then, to account for the actual usage of each part of the house, we gave a similar rating for expected usage. Next, we multiplied the quality and usage figures to give an overall weighted rating (only the overall rating is included in the chart). We separately wrote how much we thought each part of the house was worth, and how much we would use it, marked A and G, for Agnes and Gleb. Finally, we added them all up at the bottom, as you can see from this photo of my notebook.

170		450	
A/G.		A/G.	
Backyard	55.5	45	5
3	2	1	1.5
	48.5	27	27.5
Kitchen	9	6	1
in. bed.	8	4	3
dining	2	6	6
l. room	5	9	9
h.o.	9	9	9
bedroom	5	7	8.5
parking	4.5	6	6
office		-1	
ward	25-1		
	40.25	46.75	45.25
	27.5	48.75	45.25
	40.25		
	27.50		
	67.75		
			94.00
			8-91.00
			5+95

Image of calculations (courtesy of Gleb Tsipursky)

Both of us were really surprised by the result. Our second-choice house beat out our first-choice house, and by a lot, 95 to 67.5. For instance, we realized that besides the yard, the original first



choice house had a dining room that was too small for us. Also, the living room had a poor setup for the furniture we'd be bringing with us. Our original first-choice house had much worse bathroom options, and also a much poorer space for the two of us to hang out (h. o. in the photo above). While Agnes liked the kitchen in our original first choice more, it was not a factor for me, as I don't really engage with the kitchen much.

We were way off base in our initial decision-making process due to our attentional bias on the backyard and after we'd thought about it, we felt much more comfortable with our new choice. I shared my experience with others and found out that many had similar stories. We quickly called our realtor and asked her to make the bid on the second house. And we were so excited when it was finally accepted! We moved in on November 9, and haven't looked back since.

We're really happy with our new house, and I shudder to imagine what would have happened if we bought the other one. We'd have spent the long cold winter looking out the windows at the leafless, snow-covered trees in our backyard, longing for the

warm weather to arrive. By contrast, this house has a lovely heated screened-in porch that we can sit in all year round, and I enjoy a view of a pine tree from my home office window.

From that episode, I learned that this type of cost-benefit analysis is really valuable when making significant decisions that impact your long-term happiness. In fact, Benjamin Franklin used a similar method when making important decisions! So, how can you use this method to avoid the emotional trap of giving in to in-the-moment feelings for the sake of your long-term happiness?

Let's go back to the car as an example. Before making a decision, sit down and assign numbers to various components of the car. First, consider how you plan to use the car – city driving, highway driving, road trips, driving in the mountains, driving by yourself, driving with family and friends, driving your date, and other uses. How much of your time will you use the car for each activity and how important is each activity to you? Assign a numerical value to each activity based on a combination of usage and importance. For instance, you might not be taking family road trips often, but it might be important for the car to be really well suited for

those times, so give a higher number for that variable.

Second, based on your usage ratings, consider what aspects of the car are important to you – safety, gas mileage, comfort for the driver and passengers, trunk space, off-road capacity, coolness factor, and so on. For example, it might be important to you to impress your dates and friends with your car, so give a higher rating to the coolness factor. Or it might be very valuable to have comfort for yourself and good trunk space if you are taking long car trips. Assign a numerical value to each aspect based on your personal evaluation. Now you know what aspects are most important to you and are much less likely to be led astray by attentional bias!

Note that this does not mean you are trying to eliminate all emotion from your decisions. After all, your ratings are informed by how you feel about what you are evaluating. However, numerical ratings can help give those feelings *proper scope* in relation to other considerations, and prevent attentional bias from hijacking your decisions.

Apply this method to any significant financial decision – buying a car, some furniture, vacation, a

computer, a house. A smart time investment of less than half an hour could lead to a much happier future for you. Moreover, with a little imagination, this method can be applied to all important decisions, not only financial ones.

### **Questions to Consider**

- What are your strategies for making big decisions wisely?
- Has attentional bias ever led you astray when making big decisions? If so, how could you have applied the method from this article to your previous decisions in order to make better choices?
- What kind of significant financial decisions may you make soon? What kind of factors might cause attentional bias in these decisions? What specific steps can you take to avoid these problems?

### **References**

- Fox, E., Russo, R., & Dutton, K. (2002). Attentional bias for threat: Evidence for delayed disengagement from emotional faces. *Cognition & emotion*, 16(3), 355-379.
- Sarin, R. K. (2001). Multi-attribute utility theory. In *Encyclopedia of Operations Research and Management Science* (pp. 526-529). Springer US.

# **Chapter 8:**

## **Avoiding Professional Disasters With Behavioral Science**

Big scandals in top corporations - such as Facebook's Cambridge Analytica data breach, United's three pet-related debacles scandals in one week, and Equifax's handling of its own data breach - all exemplify the kind of thinking errors that lead to disasters. You might be surprised to learn that all of these disasters were avoidable.

Researchers have found that our brains make systematic and predictable errors - what behavioral scientists call cognitive biases - that lead us to make poor decisions, such as overconfidence effect, optimism bias, and planning fallacy. If the leaders of United, Facebook, and Equifax are vulnerable to these biases, so is everyone reading this article: it's just that when you experience a disaster due to cognitive biases, it doesn't make it into the news.

Knowing about the kinds of well-publicized mistakes made by top corporations helps us understand the kind of mistakes we might be making right now. Fortunately, recent research shows that we can easily improve our ability to make better decisions.

### **Overconfidence Effect**

When asked whether they are more, less, or equally skilled compared to the average driver, 93% of Americans report themselves as more skilled. When study subjects said they were 100% confident in their answers, they were wrong 20% of the time. No wonder that the overconfidence effect - our tendency to be excessively confident in our decision-making - has been found by researchers to harm performance in the workplace, whether by CEOs or ordinary professionals.

Consider Facebook's excessive confidence as an example. When Facebook learned that Cambridge Analytica might have received data from over 50 million Facebook users inappropriately, it asked Cambridge Analytica to provide it with a "legal certification" - in other words, a promise - that it deleted the data. Cambridge Analytica provided that legal certification, and Facebook accepted that as

sufficient. After the scandal broke, Facebook's CEO Mark Zuckerberg called accepting that certification as sufficient as "one of the biggest mistakes that we made" and said that Facebook will "not just rely on certifications that we've gotten from developers, but... do a full investigation of every single app."

Facebook's excessive confidence in the good faith of all the external developers with whom it worked is an example of how all of us need to be wary when we engage in professional collaborations. Don't trust your gut reactions, as they will often lead you astray. Try to second-guess yourself - and those with whom you collaborate - to avoid professional disasters.

## **Optimism Bias**

Overconfidence feeds into another thinking error, optimism bias, which refers to us being excessively optimistic about the future. For example, studies show we tend to believe our risk of suffering negative events is less than it actually is, and we overestimate the likelihood of positive events. We fall into optimism bias frequently in the workplace, overemphasizing the benefits of projects and understating the costs.

As an example, recall that United got in hot water last year for its crew dragging a passenger off the plane. It worked hard to rebuild trust among customers, and its favorability rating was going back up - until the three recent pet-related accidents brought its favorability tumbling down again. United was too optimistic about its efforts to rebuild trust and failed to react quickly enough to the new round of bad PR. Indeed, only after the third incident did United's CEO speak out to acknowledge the problem and suspend for review its pet transport program.

Don't take your example from United. If you notice a problem in your professional activities, don't wait for it to repeat three times before you start to do something about it. Such excessive optimism about the quality of your work will not end well for you. Instead, notice when things go wrong and consider a variety of alternative explanations for this problem, including both optimistic and pessimistic ones, to deal with optimism bias.

## **Planning Fallacy**

The planning fallacy combines overconfidence and optimism bias in how they apply to our plans for the future and assessments of existing processes. We



tend to assume our plans will go well, resulting in us failing to build in enough resources for potential problems. For instance, one study involved a group of students asked how long it would take the complete their senior thesis in the best-case scenario (they estimated 27.4 days on average) and the worst-case scenario (48.6 days). In reality, the actual average completion time was 55.5 days, substantially worse than the original estimates of the worst-case scenario. Research shows that in professional settings, falling into planning fallacy results in us going over budget and over time.

The data breach suffered by Equifax illustrates the problem of planning fallacy. Apparently, several months before the data breach, the Department of Homeland Security warned Equifax of a vulnerability in its computer systems. However, the company failed to follow its own process to fix the security flaw, enabling hackers to access the data of over 140 million customers. Moreover, Equifax bungled its response to the data breach. It waited six weeks to inform customers about the breach, set up an unsecure website to inform customers about it, and hid the full extent of the breach.

Just because Equifax fell into planning fallacy with both existing processes and new projects does not mean you have to suffer the same fate. As a rule of thumb, when you start new projects build in twice as much resources - of time, money, and energy - than you anticipate. Always be ready for your existing processes and practices to fail you, and have contingencies ready just in case. Finally, avoid denying negative information about your professional circumstances, and be proactive about dealing with problems.

### **Addressing Avoidable Disasters**

One of the most effective ways to address avoidable disasters is to use a premortem, which has been shown by research to address cognitive biases that lead to disasters. To conduct a premortem, first gather a team of relevant stakeholders, consisting of a mix of people with decision-making authority and expertise in the matter under evaluation. If you are doing this by yourself, ask a couple of fellow professionals or friends who know you well to help you out.

Then, ask everyone to imagine that the project or process definitely failed. Ask everyone to write out

anonymously some plausible reasons for why it failed, especially reasons that might be seen as rude or impolitic. Next, reflect on the potential reasons for failure, and brainstorm solutions. Following that, consider possible next steps for implementing these solutions.

Premortems conducted regularly to evaluate existing processes could have caught the kind of issues that led to disasters for United, Equifax, and Facebook, and they can help you avoid professional disasters in any context.

### **Questions to Consider**

- What are some avoidable disasters from which you suffered?
- Have overconfidence effect, planning fallacy, or optimism bias ever tripped you up?
- What will you do differently as a result of reading this piece?

### **References**

Adams, P. A., & Adams, J. K. (1960). Confidence in the recognition and reproduction of words difficult to spell. *The American Journal of Psychology*, 544-552.

- Buehler, R., Griffin, D., & Ross, M. (1994). Exploring the "planning fallacy": Why people underestimate their task completion times. *Journal of personality and social psychology*, 67(3), 366.
- Büyükkurt, B. K., & Büyükkurt, M. D. (1991). An experimental study of the effectiveness of three debiasing techniques. *Decision Sciences*, 22(1), 60-73.
- Gallop, D., Willy, C., & Bischoff, J. (2016). How to catch a black swan: Measuring the benefits of the premortem technique for risk identification. *Journal of Enterprise Transformation*, 6(2), 87-106.
- Kavallo, D., & Kahneman, D. (2003). Delusions of success: How optimism undermines executive decisions. *Harvard Bus Rev*.
- Klayman, J., Soll, J. B., Gonzalez-Vallejo, C., & Barlas, S. (1999). Overconfidence: It depends on how, what, and whom you ask. *Organizational behavior and human decision processes*, 79(3), 216-247.
- Klein, G. (2007). Performing a project premortem. *Harvard Business Review*, 85(9), 18-19.
- Malmendier, U., & Tate, G. (2005). CEO overconfidence and corporate investment. *The journal of finance*, 60(6), 2661-2700.
- Meissner, P., & Wulf, T. (2015). The development of strategy scenarios based on prospective

hindsight: an approach to strategic decision making. *Journal of Strategy and Management*, 8(2), 176-190.

Mitchell, D. J., Edward Russo, J., & Pennington, N. (1989). Back to the future: Temporal perspective in the explanation of events. *Journal of Behavioral Decision Making*, 2(1), 25-38.

Morewedge, C. K., Yoon, H., Scopelliti, I., Symborski, C. W., Korris, J. H., & Kassam, K. S. (2015). Debiasing decisions: Improved decision making with a single training intervention. *Policy Insights from the Behavioral and Brain Sciences*, 2(1), 129-140.

Rosen, S., & Tesser, A. (1970). On reluctance to communicate undesirable information: The MUM effect. *Sociometry*, 253-263.

Shepperd, J. A., Carroll, P., Grace, J., & Terry, M. (2002). Exploring the causes of comparative optimism. *Psychologica belgica*, 42(1/2), 65-98.

Svenson, O. (1981). Are we all less risky and more skillful than our fellow drivers?. *Acta psychologica*, 47(2), 143-148.

Turner, M. E., & Pratkanis, A. R. (1998). Twenty-five years of groupthink theory and research: Lessons from the evaluation of a theory. *Organizational behavior and human decision processes*, 73(2-3), 105-115.

Veinott, B., Klein, G. A., & Wiggins, S. (2010, May). Evaluating the effectiveness of the PreMortem

Technique on plan confidence. In *Proceedings of the 7th International ISCRAM Conference*.

Wheeler, M. (1987). The need for prospective hindsight. *Negotiation Journal*, 3(1), 7-10.

## ***Section 2:***

# ***Truth-Seeking & Other People***





# Chapter 9:

## Stop! Live the Life You Want

Back when I was in high school and through the first couple of years in college, I had a clear career goal.

### **I Planned to Become a Medical Doctor**

Why? Looking back at it, my career goal was a result of the encouragement and expectations from my family and friends.

My family emigrated from the Soviet Union when I was 10, and we spent the next few years living in poverty. I remember my parents' early jobs in America, my dad driving a bread delivery truck and my mom cleaning other people's houses. We couldn't afford nice things. I felt so ashamed in front of other kids for not being able to get that latest cool backpack or wear cool clothes – always on the margins, never fitting in. My parents encouraged me to become a medical doctor. They gave up

successful professional careers when they moved to the US, and they worked long and hard to regain financial stability. It's no wonder that they wanted me to have a career that guaranteed a high income, stability, and prestige.

My friends also encouraged me to go into medicine. This was especially so with my best friend in high school, who also wanted to become a medical doctor. He wanted to have a prestigious job and make lots of money, which sounded like a good goal to have and reinforced my parents' advice. In addition, friendly competition was a big part of what my best friend and I did – whether arguing with each other about life questions or playing poker into the wee hours of the morning. Putting in long hours to ace the biochemistry exam and get a high score on the standardized test to get into medical school was just another way for us to show each other who was top dog. I still remember the thrill of finding out that I got the higher score on the standardized test. I had won!

As you can see, it was very easy for me to go along with what my friends and family encouraged me to do.

I was in my last year of college, working through the complicated and expensive process of applying to medical schools, when I came across an essay question that stopped in me in my tracks:

**“Why do you want to be a medical doctor?”**

The question stopped me in my tracks. Why did I want to be a medical doctor? Well, it's what everyone around me wanted me to do. It was what my family wanted me to do. It was what my friends encouraged me to do. It would mean getting a lot of money. It would be a very safe career. It would be prestigious. So it was the right thing for me to do. Wasn't it?

Well, maybe it wasn't.

I realized that I never really stopped and thought about what I wanted to do with my life. My career is how I would spend much of my time every week for many, many years, but I never considered what kind of work I would actually want to do, not to mention whether I would want to do the work that's involved in being a medical doctor. As a medical doctor, I would work long and sleepless hours, spend my

time around the sick and dying, and hold people's lives in my hands. Is that what I wanted to do?

There I was, sitting at the keyboard, staring at the blank Word document with that essay question at the top. Why did I want to be a medical doctor? I didn't have a good answer to that question.

My mind was racing, my thoughts were jumbled. What should I do? I decided to talk to someone I could trust, so I called my girlfriend to help me deal with my mini-life crisis. She was very supportive, as I thought she would be. She told me I shouldn't do what others thought I should do, but think about what would make me happy. More important than making money, she said, is having a lifestyle you enjoy, and that lifestyle can be had for much less than I might think.

Her words provided a valuable outside perspective for me. By the end of our conversation, I realized that I had no interest in doing the job of a medical doctor. And that if I continued down the path I was on, I would be miserable in my career, doing it just for the money and prestige. I realized that I was on the medical school track because others I trust – my

parents and my friends – told me it was a good idea so many times that I believed it was true, regardless of whether it was actually a good thing for me to do.

### **Why Did This Happen?**

I later learned that I found myself in this situation in part because of a common thinking error which scientists call the mere-exposure effect. This term refers to our brain's tendency to believe something is true and good just because we are familiar with it, regardless of whether that something is actually true and good.

Since I learned about the mere-exposure effect, I am much more suspicious of any beliefs I have that are frequently repeated by others around me, and go the extra mile to evaluate whether they are true and good for me. This means I can gain agency and intentionally take actions that help me toward my long-term goals.

### **So What Happened Next?**

After my big realization about medical school and the conversation with my girlfriend, I took some time to think about my actual long-term goals. What did I – not someone else – want to do with my life?

What kind of a career did I want to have? Where did I want to go?

I was always passionate about history. In grade school I got in trouble for reading history books under my desk when the teacher talked about math. As a teenager, I stayed up until 3am reading books about World War II. Even when I was on the medical school track in college I double-majored in history and biology, with history my love and joy. However, I never seriously considered going into history professionally. It's not a field where one can make much money or have great job security.

After considering my options and preferences, I decided that money and security mattered less than a profession that would be genuinely satisfying and meaningful. What's the point of making a million bucks if I'm miserable doing it, I thought to myself. I chose a long-term goal that I thought would make me happy, as opposed to simply being in line with the expectations of my parents and friends. So I decided to become a history professor.

My decision led to some big challenges with those close to me. My parents were very upset to learn that I no longer wanted to go to medical school.

They really tore into me, telling me I would never be well off or have job security. Also, it wasn't easy to tell my friends that I decided to become a history professor instead of a medical doctor. My best friend even jokingly asked if I was willing to trade grades on the standardized medical school exam, since I wasn't going to use my score. Not to mention how painful it was to accept that I wasted so much time and effort to prepare for medical school only to realize that it was not the right choice for me. I really I wish this was something I realized earlier, not in my last year of college.

If you want to avoid finding yourself in a situation like this, here are 3 steps you can take:

- Stop and think about your life purpose and your long-term goals. Write these down on a piece of paper.
- Now review your thoughts, and see whether you may be excessively influenced by messages you get from your family, friends, or the media. If so, pay special attention and make sure that these goals are also aligned with what you want for yourself. Answer the following question: if you did not have any of those influences, what would you put down for your own life purpose and long-term

goals? Recognize that your life is yours, not theirs, and you should live whatever life you choose for yourself. This approach is part of a broader strategy of dealing with common thinking errors by considering alternatives, which research shows is a very effective way for avoiding thinking errors such as the mere-exposure effect.

- Review your answers and revise them as needed every 3 months. Avoid being attached to your previous goals. Remember, you change throughout your life, and your goals and preferences change with you. Don't be afraid to let go of the past, and welcome the current you with arms wide open.

### **Questions to Consider**

- Do you ever experience pressure to make choices that are not necessarily right for you?
- Have you ever made a big decision, but later realized that it wasn't in line with your long-term goals?
- Have you ever set aside time to think about your long-term goals? If so, what was your experience?

### **References**

Bornstein, R. F., & Craver-Lemley, C. (2016). Mere exposure effect. *Cognitive Illusions: Intriguing*



Phenomena in Judgement, Thinking and Memory, 256.

Hirt, E. R., Kardes, F. R., & Markman, K. D. (2004).  
Activating a mental simulation mind-set through  
generation of alternatives: Implications for  
debiasing in related and unrelated  
domains. *Journal of Experimental Social  
Psychology*, 40(3), 374-383.



# **Chapter 10:**

## **Succeeding At Other Minds**

Imagine you're really excited about a new idea for a collaborative project. You send an e-mail about it to a friend who you just know is going to be as excited as you. You're waiting on pins and needles for a response, checking your inbox every hour. A couple of hours pass, then a couple more. You're getting stressed and anxious, waiting on the edge of your seat for a reply. The next day goes by, and another day. You're very confused about why you haven't received a response. Why isn't your friend writing you back? Doesn't she like you? Is she upset with you? What's wrong?

Has this ever happened to you? It's happened to me many times. My Autopilot System goes into overdrive, imagining various negative scenarios and sending out stress-inducing hormones. Such catastrophizing is a common type of thinking

error, one that research shows undermines mental and physical well-being.

Another thinking error in this scenario is that one's friend will share the same opinion that you do about your new idea. Studies on a cognitive bias called the "false consensus effect" indicate that our Autopilot System significantly overestimates the extent to which others agree with our opinions. This is especially true for those close to us, such as our friends and family. As a result, we make mistakes when we use our intuitions to predict the behavior of others around us, including our immediate social circle.

However, the false consensus effect applies more broadly as well. Our gut reactions tend to perceive "the public" as a whole as sharing our perspective. This problem is especially problematic when it causes us to overrate substantially the extent to which others will agree with our political opinions. Such overestimation undermines our ability to engage in healthy political discussions and contributes to political polarization. No wonder we don't do well as intuitive psychologists!

So how can we work against the false consensus effect? First, remember a previously-discussed strategy, namely that our mental maps never match the territory of reality. And our mental maps certainly do not match the mental maps of others!

To keep the latter fact in mind, here is a very useful mental habit to adopt: avoiding “failing at other minds.” What does that mean in practice? Essentially, when trying to imagine how other people think about the world, take a moment to stop and remember that their perspective is inherently different from your own. This is a specific case of a broader de-biasing strategy of imagining the opposite, in this case taking the perspective of the other person. And why is this helpful? Well, our intuitive theory of mind, the way we understand the minds of others, tends to model others as ourselves. Our Autopilot System perceives others as understanding the world and having the same idea of what is true as we do. Internalizing the mental habit of avoiding failing at other minds helps remind us of this problematic tendency, and work against it. Through developing this mental habit, we can be elephant whisperers and retrain our Autopilot System to have a more intentional approach to predicting the thoughts, emotions, and behaviors of

others. Thus, we can evaluate reality more clearly and gain greater agency by making more effective decisions that help us reach our goals. We can succeed at other minds!

Now, what are the strategies for most effectively learning this information, and internalizing the behaviors and mental patterns that can help you succeed? Well, educational psychology research illustrates that engaging with this information actively, personalizing it to your life, linking it to your goals, and deciding on a plan and specific next steps you will take are the best practices for this purpose.

### **Questions to Consider:**

- Are there any instances where catastrophizing has negatively influenced your well-being?
- Has the false consensus effect ever steered you wrong in personal interactions? What about in your predictions of public opinions and political engagement?
- In what ways, if any, do you think the mental habit of avoiding failing at other minds can help you have a better life and gain greater agency?

- If you think it can be beneficial for you, what kind of plan can you make and what specific steps can you take to internalize this mental habit?

## References

- Baron-Cohen, S., Tager-Flusberg, H., & Lombardo, M. (Eds.). (2013). Understanding other minds: Perspectives from developmental social neuroscience.
- Bauman, K. P., & Geher, G. (2002). We think you agree: The detrimental impact of the false consensus effect on behavior. *Current Psychology*, 21(4), 293-318.
- Jensen, M. P., Turner, J. A., & Romano, J. M. (2001). Changes in beliefs, catastrophizing, and coping are associated with improvement in multidisciplinary pain treatment. *Journal of consulting and clinical psychology*, 69(4), 655.
- Nir, L. (2011). Motivated reasoning and public opinion perception. *Public Opinion Quarterly*, 75(3), 504-532.
- Ross, L., Greene, D., & House, P. (1977). The "false consensus effect": An egocentric bias in social perception and attribution processes. *Journal of experimental social psychology*, 13(3), 279-301.
- Schunk, D. H. (1989). Social cognitive theory and self-regulated learning. *Self-regulated learning and academic achievement: Theory, research, and practice*, 83-110.





# **Chapter 11:**

## **Protect Your Relationships by Cutting Off Your Anchors**

In my early twenties, I said goodbye to my family in New York City and moved to Boston for graduate school. While I'd been living in my parents' house, I talked to my mother, father, and teenage brother all the time, and felt really good about doing so. After I moved out, I wanted to stay close, so I called my family often. However, phone calls with my brother proved a major challenge. I called him regularly but he usually did not call back. My mother encouraged me to keep calling him, and reminded him often to call me – which he rarely did. I was upset and confused by this, as you can imagine, and when I visited NYC and pressed my brother to call me, he apologized, and said he would call back when I called. He did so for a bit, but then stopped again.

My mother was distraught, and I was too. Negative feelings and thoughts kept running through my head: why didn't he call me back? Didn't he love me? Didn't he care about me?

This issue festered for a couple of years, until I decided to deal with it directly. On my next extended visit to NYC, I sat down with him, and had a serious conversation. It turned out that my brother really dislikes talking on the phone. This form of communication just stresses him out. He has a much stronger preference for instant messaging as a mode of communication. Moreover, his Elephant brain developed an "ugh field," a variety of negative emotions, around communicating with me. This was due to the combination of pressure he experienced from my mother and me, and the guilt and shame that came from him failing to call.

### **What I Should Have Done**

I really wish I knew how he felt! What I should have done was notice that he was not calling me back, and have a conversation about the problem with him right away. I should not have insisted that he call me, but instead express curiosity about why he did not. That way, I would have found out about his

anxiety and stress around phone conversations. He would not have felt guilty and pressured. I would not have felt sad and confused. Everyone would have been better off!

### **Broader Relevance for Communication and Relationships**

This story illustrates the importance of adapting one's communication style to one's audience. Much has been written about the vital role of communication in the workplace and in civic engagement, especially analyzing and targeting the preferences of your audiences to meet your communication goals. Research shows that such communication is also vital in our personal lives, such as ensuring healthy romantic relationships. Studies of family communication have likewise shown the importance of communicating well and especially being flexible about one's communication style and preferences.

### **Flexibility and Anchoring**

Such flexibility was the missing ingredient in my communication to my brother. I had the goal of cultivating my relationship to my brother, but was trying to reach this goal in a way that was not

intentional. So I decided to be more flexible and started exchanging Facebook messages with him, using Gmail chat, and other instant messaging services. We grew closer and had a much better relationship. We even worked to solve occasional problems that would come up between one of us and our parents!

Now, why did this problem occur in the first place? Well, from my background growing up, I developed a reference point, in other words a perception of what is normal and appropriate, of the phone being the “right way” to maintain and cultivate relationships with close people. I suffered from the anchoring bias, a common cognitive bias, the scientific name for thinking errors frequently made by our minds. The anchoring bias occurs when people rely too heavily on information they got early onward, and do not move away from this anchor sufficiently based on new information. I had to acknowledge that I failed at my brother's mind and forgot that my mental map does not match his mental map.

## **Dealing with Anchoring**

So how does one deal with the anchoring bias? A useful strategy is remembering the benefit of re-examining our cached patterns. This term refers to habits of thought and feeling in our mind that we absorbed uncritically from the social environment around us, as opposed to conclusions we arrived at by our own intentional reasoning. Re-evaluating our cached patterns of thought and feeling enables us to see reality more clearly, make more effective decisions, and achieve our goals, thus helping us gain greater agency in personal relationships and other life areas.

So whenever you notice yourself confused or upset by something that you did not expect, stop and think: what is the origin of your confusion? Is it coming from some sort of cached pattern, where you think something is the only “right way” of doing things? Think about whether there are any alternative ways of achieving your desired outcome. (This is part of a broader strategy of dealing with common thinking errors by considering alternatives, which research shows is a very effective way for avoiding thinking errors.) Try listing at least 3 alternatives, and describe why each of them can be

valid and right, at least for other people if not for you. Remember, relationships are a two-way street, and you need to respect the other person and their preferences in order to communicate well.

### **Questions to Consider**

- Can you identify any tough fields you developed? How do you deal with tough fields?
- In what ways, if any, can you be a better communicator in your professional, personal, and civic life areas?
- Are there any instances where the anchoring effect caused you to make suboptimal decisions?
- Do you think you have any cached patterns that might be harmful to your mental well-being?
- If so, what steps can you take to deal with these cached patterns?

### **References**

- Arnold, L. B. (2007). Family communication: Theory and research.
- Gottman, J. M. (1994). What Predicts Divorce? Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gottman, J. M. (1979). Marital Interaction: Experimental Investigations. New York: Academic Press.

- Kray, L. J., & Galinsky, A. D. (2003). The debiasing effect of counterfactual mind-sets: Increasing the search for disconfirmatory information in group decisions. *Organizational Behavior and Human Decision Processes*, 91(1), 69-81.
- Tversky, A., & Kahneman, D. (1991). Loss aversion in riskless choice: A reference-dependent model. *The quarterly journal of economics*, 106(4), 1039-1061.





# **Chapter 12:**

## **Winning Arguments for Truth Through Collaborative Truth- Seeking**

We frequently use debates to resolve different opinions about the truth. However, debates are not always the best course for figuring out the truth. In more emotionally charged situations, the technique of collaborative truth-seeking is often better.

### **The Problem with Debates**

The usual method of hashing out disagreements in order to discover the truth about reality is through debates, in person or online. Yet more often than not, people on opposing sides of a debate end up seeking to persuade rather than prioritizing truth discovery. Indeed, research suggests ([link is external](#)) that debates have a specific evolutionary

function – not for discovering the truth but to ensure that our perspective prevails within a tribal social context. No wonder debates are often compared to wars ([link is external](#)). This is especially so in emotionally charged topics, such as politics, as our autopilot system ([link is external](#)) takes over and inhibits our ability to be rational in our engagement with others.

We may hope that we would strive to discover the truth during debates. Yet given that we are not always fully rational and strategic ([link is external](#)) in our social engagements, it is easy to slip up within debate mode and orient toward winning instead of uncovering the truth. Heck, I know that I sometimes forget in the midst of a heated debate that I may be the one who is wrong – I'd be surprised if this didn't happen with you. So while we should certainly continue to engage in debates, we should also use additional strategies – less natural and intuitive ones. These strategies could put us in a better mindset for updating our beliefs and improving our perspective on the truth. One such solution is a mode of engagement called collaborative truth-seeking.

## **Collaborative Truth-Seeking**

Collaborative truth-seeking ([link is external](#)) is one way of describing a more intentional approach in which two or more people with different opinions engage in a process that focuses on finding out the truth. Collaborative truth-seeking is a modality that should be used among people with shared goals and a shared sense of trust.

Some important features of collaborative truth-seeking, which are often not present in debates, are: focusing on a desire to change one's own mind toward the truth; a curious attitude; being sensitive to others' emotions; striving to avoid arousing emotions that will hinder updating beliefs and truth discovery; and a trust that all other participants are doing the same. These can contribute to increased social sensitivity ([link is external](#)), which, together ([link is external](#)) with other attributes, correlate with accomplishing higher group performance on a variety of activities.

- Share weaknesses and uncertainties in your own position
- Share your biases about your position
- Share your social context and background as relevant to the discussion. For instance, I

grew up poor once my family immigrated to the US when I was 10, and this naturally influences me to care about poverty more than some other issues, thus biasing me in this area

- Vocalize curiosity and the desire to learn
- Ask the other person to call you out if they think you're getting emotional or engaging in emotive debate instead of collaborative truth-seeking, and consider using a safe word

Here are additional techniques that can help you stay in collaborative truth-seeking mode after establishing trust:

- Self-signal: signal to yourself that you want to engage in collaborative truth-seeking, instead of debating
- Empathize: try to empathize with the other perspective that you do not hold by considering where their viewpoint came from, why they think what they do, and recognizing that they feel that their viewpoint is correct
- Keep calm: be prepared with emotional management to calm your emotions and those of the people you engage with when a desire for debate arises. Watch out for defensiveness and aggressiveness in particular

- Go slow: take the time to listen fully and think fully
- Consider pausing: have an escape route for complex thoughts and emotions if you can't deal with them in the moment by pausing and picking up the discussion later. Say "I will take some time to think about this," and/or write things down
- Echo: paraphrase the other person's position to indicate and check whether you've fully understood their thoughts
- Be open: orient toward improving the other person's points to argue against their strongest form (link is external)
- Stay the course: be passionate about wanting to update your beliefs, maintain the most truthful perspective, and adopt the best evidence and arguments, no matter if they are yours or those of others
- Be diplomatic: when you think the other person is wrong, strive to avoid saying "you're wrong because of X" but instead to use questions, such as "what do you think X implies about your argument?"
- Be specific and concrete: go down levels of abstraction (link is external)
- Be clear: make sure the semantics are clear to all by defining terms. Consider tabooing terms (link is external) if some are emotionally arousing, and make sure you are

describing the same territory of reality (link is external)

- Be probabilistic: use probabilistic thinking (link is external) and probabilistic language, to help get at the extent of disagreement and be as specific and concrete as possible. For instance, avoid saying that X is absolutely true, but say that you think there's an 80% chance it's the true position. Consider adding what evidence and reasoning led you to believe so, for both you and the other participants to examine this chain of thought
- When people whose perspective you respect fail to update their beliefs in response to your clear chain of reasoning and evidence, update a little somewhat toward their position, since that presents evidence that your position is not very convincing
- Confirm your sources: look up information when it's possible to do so (Google is your friend)
- Charity mode: try to be more charitable to others and their expertise than seems intuitive to you, as our intuitions are a bad guide to seeking the truth when the person with whom we are in discussion has a perspective different from our own. For instance, if someone says something that seems wrong to you, check to make sure that is what the person actually said – you might

have misheard things, or the person might have misstated something

- Use the reversal test to check for status quo bias: If you are discussing whether to change some specific numeric parameter – say increase by 50% the money donated to charity X – state the reverse of your positions, for example decreasing the amount of money donated to charity X by 50%, and see how that impacts your perspective
- Use CFAR's double crux technique. In this technique, two parties who hold different positions on an argument each writes the fundamental reason for their position (the crux of their position). This reason has to be the key one, so if it was proven incorrect, then each would change their perspective. Then, look for experiments that can test the crux. Repeat as needed. If a person identifies more than one reason as crucial, you can go through each as needed.

Of course, not all of these techniques are necessary for high-quality collaborative truth-seeking. Some are easier than others, and different techniques apply better to different kinds of truth-seeking discussions. You can apply some of these techniques during debates as well, such as double

crux and the reversal test. Try some out and see how they work for you.

## **Conclusion**

Engaging in collaborative truth-seeking goes against our natural impulses to win in a debate, and is thus more cognitively costly. It also tends to take more time and effort than just debating. It is also easy to slip into debate mode even when using collaborative truth-seeking, because of the intuitive nature of debate mode.

Moreover, collaborative truth-seeking need not replace debates at all times. This non-intuitive mode of engagement can be chosen when discussing issues that relate to deeply-held beliefs and/or ones that risk emotional triggering for the people involved. Because of my own background, I would prefer to discuss poverty in collaborative truth-seeking mode rather than debate mode, for example. On such issues, collaborative truth-seeking can provide a shortcut to resolution, in comparison to protracted, tiring, and emotionally challenging debates.



Likewise, using collaborative truth-seeking to resolve differing opinions on all issues holds the danger of creating a community oriented excessively toward sensitivity to the perspectives of others, which might result in important issues not being discussed candidly. After all, research shows ([link is external](#)) the importance of having disagreement in order to make wise decisions and to figure out the truth. Of course, collaborative truth-seeking is well suited to expressing disagreements in a sensitive way, so if used appropriately, it might permit even people with triggers around certain topics to express their opinions.

Taking these caveats into consideration, collaborative truth-seeking is a great tool to use to discover the truth and to update our beliefs, as it can get past the high emotional barriers to altering our perspectives that have been put up by evolution.

### **Questions to Consider**

- In the past, when do you wish you could have applied collaborative truth-seeking techniques?
- In what contexts would collaborative truth-seeking serve you well in the future?

- What might be challenges to your use of collaborative truth-seeking?

## References

- Freud, S., & Strachey, J. (1991). Civilization, society and religion: Group psychology, civilization and its discontents and other works.
- Holland, D., Fox, G., & Daro, V. (2008). Social movements and collective identity. *Anthropological Quarterly*, 81(1), 95-126.
- Lakoff, G., & Johnson, M. (2008). Metaphors we live by.
- Kurzban, R. (2012). Why everyone (else) is a hypocrite: Evolution and the modular mind.
- Woolley, A. W., Chabris, C. F., Pentland, A., Hashmi, N., & Malone, T. W. (2010). Evidence for a collective intelligence factor in the performance of human groups. *Science*, 330(6004), 686-688.
- Bostrom, N., & Ord, T. (2006). The reversal test: eliminating status quo bias in applied ethics. *Ethics*, 116(4), 656-679.
- Surowiecki, J. (2005). The wisdom of crowds.

# **Chapter 13:**

## **How to Talk to Professional Colleagues Who Deny the Facts**

Parties at the office are great for building workplace camaraderie and team spirit, but when was the last time a colleague - perhaps fueled by too much alcohol - said something that showed they are looking at their professional world through rose-colored glasses.

It happens more often than you might think. A four-year study by LeadershipIQ.com found that 23 percent of CEOs got fired for denying reality, meaning refusing to recognize negative facts about the organization's performance. Other findings show that professionals at all levels suffer from the tendency to deny uncomfortable facts in business settings.

Dealing with truth denialism - in business, politics, and other life areas - is one of my areas of research. One of the strategies described there can be summarized under the acronym EGRIP (Emotions, Goals, Rapport, Information, Positive Reinforcement), which provides clear guidelines on how to deal with colleagues who deny the facts.

### **What Not To Do**

Our intuition is to confront our colleagues with the facts and arguments, but research - and common sense, if the colleague is your supervisor - suggests that's usually exactly the wrong thing to do. When we see someone believing in something we are confident is false, we need to suspect some emotional block is at play. Research on the confirmation bias shows that we tend to look for and interpret information in ways that conforms to our beliefs. Studies on a phenomenon called the backfire effect shows when we are presented with facts that cause us to feel bad about our self-worth or worldview, we may sometimes even develop a stronger attachment to the incorrect belief.

## **Don't Argue, EGRIP Instead**

If someone denies clear facts you can safely assume that it's their emotions that are leading them away from reality. While gut reactions can be helpful, they can also lead us astray in systematic and predictable ways. We need to exhibit emotional leadership and deploy the skill of empathy, meaning understanding other people's emotions, to determine what emotional blocks might cause them to stick their heads into the sand of reality.

For instance, consider the case of Mike, who was the new product development team lead in a software company for which I consulted. He set an ambitious goal for a product launch, and as more and more bugs kept creeping up, he refused to move the date. People tried to talk to him, but he hunkered down and kept insisting that the product would launch on time and work well.

Looking from the outside in, I saw that Mike tied his self-worth and sense of success to "sticking to his guns," associating strong leadership with consistency and afraid of appearing weak in his new role as team lead. In my role as a neutral consultant, he privately told me that he believed some team

members were trying to undermine him by getting him to shift the schedule and admit he failed to deliver.

Understanding his fear and insecurity about being a new leader, I went on to establish shared goals for both of us, which is crucial for effective knowledge sharing in professional environments. I spoke with Mike about how we both share the goal of having him succeed as a leader in the long term, and secure his new position in the company. Likewise, we both shared the goal of having the new product be profitable for the company.

Third, build rapport. Practice mirroring, meaning rephrasing in your own words the points made by the other person, which helps build trust in business relationships. Using the empathetic listening you did previously, a vital skill in selling, to echo their emotions and show you understand how they feel. I spoke with Mike about how it must hard to be worried about the loyalty of one's team members, and the loneliness of being a new leader. We talked about what makes someone a strong leader.

At this point, start providing new information that might prove a bit challenging, but would not touch the actual pain point. I steered the conversation toward how research suggests one of the most important signs of being a strong leader is the ability to change your mind based on new evidence, giving examples such as Alan Mulally saving Ford Motor Company through repeated changes of course. If I had led with this information, Mike might have perceived it as threatening, but since I slipped it in naturally as part of a broader conversation after building rapport built on shared goals and empathy, he accepted it as a useful new insight.

Then, I asked him where he can best deploy this skill to show those who might try to undermine him what a strong leader he is, and at the same time make the new product as profitable as possible. Without much additional prompting, he volunteered that he can show strength by delaying the launch of the new product. I provided him with positive reinforcement, a research-based tactic of effective motivation, by praising his ability to exhibit the traits of a strong leader.

Good luck, and remember that you can use EGRIP and other similar research-based tactics not simply in professional settings, but in all situations where you want to steer others away from false beliefs.

### **Questions to Consider:**

- When was the last argument you had in the workplace? Can you envision how it would have gone differently if you used EGRIP?
- In what future conversations do you think you will intend to use EGRIP?
- How can you most effectively convey the tactic of EGRIP to your colleagues?

### **References**

- Aggarwal, P., Castleberry, S. B., Ridnour, R., & Shepherd, C. D. (2005). Salesperson empathy and listening: impact on relationship outcomes. *Journal of Marketing Theory and Practice*, 13(3), 16-31.
- Chow, W. S., & Chan, L. S. (2008). Social network, social trust and shared goals in organizational knowledge sharing. *Information & management*, 45(7), 458-465.
- Gigerenzer, G. (2007). Gut feelings: The intelligence of the unconscious.
- Hoffman, B. G. (2012). American icon: Alan Mulally and the fight to save Ford Motor Company.



- Kamery, R. H. (2004, July). Motivation techniques for positive reinforcement: A review. In Allied Academies International Conference. Academy of Legal, Ethical and Regulatory Issues. Proceedings (Vol. 8, No. 2, p. 91). Jordan Whitney Enterprises, Inc.
- Klayman, J. (1995). Varieties of confirmation bias. *Psychology of learning and motivation*, 32, 385-418.
- Mayer, J. D., & Geher, G. (1996). Emotional intelligence and the identification of emotion. *Intelligence*, 22(2), 89-113.
- Nyhan, B., & Reifler, J. (2010). When corrections fail: The persistence of political perceptions. *Political Behavior*, 32(2), 303-330.
- Peterson, R. T., & Limbu, Y. (2009). The convergence of mirroring and empathy: Communications training in business-to-business personal selling persuasion efforts. *Journal of Business-to-business Marketing*, 16(3), 193-219.
- Pittampalli, A. (2016). Persuadable: How great leaders change their minds to change the world.
- Tedlow, R. S. (2010). Denial: Why business leaders fail to look facts in the face--and what to do about it.
- Tsipursky, G. (2017). How Can Facts Trump Ideology? *The Human Prospect*, 6.3, 4-10.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124-1131.



# **Chapter 14:**

## **Cultivating Trust and Integrity: The Pro-Truth Pledge**

Mutual trust is vital to a healthy organizational culture and high employee engagement. However, research suggests that organizations do not do nearly enough to cultivate integrity and honesty, the building blocks of trust, in the workplace. As a result, organizations suffer from low employee engagement, high turnover, increased sick days, lowered productivity, heightened team conflict, and poor decision-making practices, all of which hits their bottom line hard.

Individual professionals – whether solopreneurs or employees in a larger organization – also benefit greatly from cultivating trust in their professional relationships. One's professional reputation as a trustworthy and truthful business collaborator often determines professional success.

Finally, research suggests that mutual trust is also crucial for the health of democratic societies. If citizens trust their political system, then they cooperate with their government: timely tax payments, compliance with laws and judicial rulings, support of various social service efforts, and so much more. Unfortunately, in recent years, we have seen increasing misinformation in our society, leading to growing polarization and undermining trust.

The Pro-Truth Pledge (at [ProTruthPledge.org](https://ProTruthPledge.org)) helps facilitate trust – whether in an organizational context, in professional relationships, or in our society as a whole – by getting Pledge signers to commit to twelve behaviors shown by research to facilitate truthfulness. The behaviors include:

- **Verify:** Fact-check information to confirm it is true before accepting and sharing it.
- **Balance:** Share the whole truth, even if some aspects do not support my opinion.
- **Cite:** Share my sources so that others can verify my information.
- **Clarify:** Distinguish between my opinion and the facts.

- Acknowledge: Acknowledge when others share true information, even when we disagree otherwise
- Reevaluate: Reevaluate if my information is challenged, retract it if I cannot verify it.
- Defend: Defend others when they come under attack for sharing true information, even when we disagree otherwise.
- Align: Align my opinions and my actions with true information.
- Fix: Ask people to retract information that reliable sources have disproved even if they are my allies.
- Educate: Compassionately inform those around me to stop using unreliable sources even if these sources support my opinion.
- Defer: Recognize the opinions of experts as more likely to be accurate when the facts are disputed.
- Celebrate: Celebrate those who retract incorrect statements and update their beliefs toward the truth.

The Pledge was designed to counteract cognitive biases that research shows undermine truthfulness, and thus trust. For example, the confirmation bias refers to our tendency to search for and accept information that aligns with our current beliefs and expectations, in any setting. One way to address the confirmation bias involves asking people to consider

and search for evidence that disproves their initial beliefs. The behaviors in the pledge that ask people to verify information, cite sources, share the whole truth, reevaluate information, distinguish opinions and facts, and align actions and beliefs with the facts address the confirmation bias.

The Pledge also addresses the in-group bias and the Dunning-Kruger effect. In-group bias refers to when people favor those they perceive to be part of their own group over others not in that group. To address the in-group bias, the pledge asks people to defend other people who come under attack for sharing accurate information, to request that allies who share inaccurate information retract it, and acknowledge when others share facts even if you otherwise disagree. The Dunning-Kruger effect occurs when those who have less expertise and skills in any given area have an inflated perception of their abilities. To address this problem, the pledge calls on signees to defer to those with expertise.

Studies have shown that if people perceived others around them as behaving dishonestly, they are also more likely to behave dishonestly themselves; in turn, if they behave honestly, they perceive others

as more likely to behave honestly. Consider what happens when those in a specific organization perceive widespread dishonesty: of course they will follow these tendencies. The same applies to our society as a whole, for instance with misinformation sharing on social media. The last four behaviors of the pledge are specifically intended to encourage pledge-takers to promote honesty in their social networks and organizations.

Other research has shown some intriguing findings as to how to increase the likelihood that people will behave honestly. Reminders about ethical behavior make participants less likely to lie, getting people to sign an honor code or other honesty commitment contract before engaging in tasks in which people were likely to lie increased honesty, and making standards for truthful behavior clear decreased deception. Taking the pledge itself should serve as a public commitment to truth-oriented activity similar to signing an honor code, while also serving as a reminder of ethical behavior, and the twelve behaviors provide clarity on what it means to be honest.

Those who sign the Pledge can use its logo on their social media and other online presence, as well as

on their business cards and other materials, making their commitment clear and getting a reputation boost. Those who self-identify as public figures and organizations get an additional reputation boost, as they are listed on the Pledge website and their information is sent around to other pledge-takers. Doing so increases the credibility of public figures and organizations who take the Pledge, make it easy to distinguish those who committed to sharing accurate information from those who did not. Yet the reputational boost comes with accountability, because anyone can report a public figure or organization that violates the Pledge, kicking off an investigation by private citizens who volunteer to help enforce the Pledge. Overall, the Pledge combines the Wikipedia crowdsourcing model of fact-checking with the opt-in Better Business Bureau model for rewarding ethical behavior and holding businesses accountable.

If you wish to join other truth-seekers and cultivate trust and integrity – in your professional relationships, your organization, and your society – please go to [ProTruthPledge.org](https://ProTruthPledge.org) and sign the pledge.



### **Questions to Consider:**

- Were you surprised by what you learned about the role of trust in professional relationships, organizational culture, or democratic societies? If so, what was surprising?
- Which of the Pledge behaviors do you think are the easiest? Which are the most challenging?
- What aspects of the research on what causes us to be more or less truthful fits with your lived experience? What aspects do not?
- Will you sign the Pledge? Why or why not?

### **References**

- Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election (No. w23089). National Bureau of Economic Research.
- Avila, R., Yankelevitz, R. L., Gonzalez, J. C., & Hackenberg, T. D. (2013). Varying the costs of sunk costs: Optimal and nonoptimal choices in a sunk-cost task with humans. *Journal of the Experimental Analysis of Behavior*, 100, 165-173.
- Braithwaite, Valerie, and Margaret Levi, eds. *Trust and governance*. Russell Sage Foundation, 2003.
- Burn, S. M. (1991). Social psychology and the stimulation of recycling behaviors: The block leader approach. *Journal of applied social psychology*, 21(8), 611-629.

- Burgess, D., Haney, B., Snyder, M., Sullivan, J. L., & Transue, J. E. (2000). Rocking the vote: Using personalized messages to motivate voting among young adults. *Public Opinion Quarterly*, 64(1), 29-52.
- DeLeon, I. G., & Fuqua, R. W. (1995). The effects of public commitment and group feedback on curbside recycling. *Environment and Behavior*, 27, 233-250.
- Dirks, K. T., & Ferrin, D. L. (2001). The role of trust in organizational settings. *Organization science*, 12(4), 450-467.
- Dunning, D. (2011). 5 The Dunning-Kruger Effect: On Being Ignorant of One's Own Ignorance. *Advances in experimental social psychology*, 44, 247.
- Embry, D. D., & Biglan, A. (2008). Evidence-based kernels: Fundamental units of behavioral influence. *Clinical Child and Family Psychology Review*, 11, 75-113.
- Frlying, M. (2016). A developmental-behavioral analysis of lying. *International Journal of Psychology and Psychological Theory*, 16(1), 13-22.
- Gino, F., Norton, M. I., & Ariely, D. (2010). The counterfeit self: The deceptive costs of faking it. *Psychological science*, 21(5), 712-720.
- Hardin, Russell. *Trust and trustworthiness*. Russell Sage Foundation, 2002.

- Kramer, R. M., & Tyler, T. R. (Eds.). (1996). Trust in organizations: Frontiers of theory and research. Sage.
- Kray, L. J., & Galinsky, A. D. (2003); Multiple explanation: A consider-an-alternative strategy for debiasing judgments. *Journal of Personality and Social Psychology*, 69(6), 1069.
- Macaskill, A. C., & Hackenberg, T. D. (2012). Providing a reinforcement history that reduces the sunk cost effect. *Behavioural Processes*, 89, 212-218.
- Macaskill, A. c., & Hackenberg, T. D. (2013). Optimal and nonoptimal choice in a laboratory-based sunk cost task with humans: A cross-species replication. *Journal of the Experimental Analysis of Behavior*, 100, 301-315.
- Mann, H., Garcia-Rada, X., Houser, D., & Ariely, D. (2014). Everybody else is doing it: Exploring social transmission of lying behavior. *PloS one*, 9(10), e109591.
- Mazar, N., Amir, O., & Ariely, D. (2008). More ways to cheat-expanding the scope of dishonesty. *Journal of Marketing Research*, 45(6), 651-653.
- Mazar, N., & Ariely, D. (2006). Dishonesty in everyday life and its policy implications. *Journal of public policy & Marketing*, 25(1), 117-126.
- Newton, Kenneth. "Trust, social capital, civil society, and democracy." *International Political Science Review* 22.2 (2001): 201-214.

Verkuyten, M., & Nekuee, S. (1999). Ingroup bias: the effect of self-stereotyping, identification and group threat. *European Journal of Social Psychology*, 29(2-3), 411-418.

## ***Section 3:***

# ***Strategies for Individual and Organizational Decision-Making***



# **Chapter 15:**

## **Guidelines on Avoiding Disastrous Decisions**

These guidelines will help you avoid disastrous decisions in cases where you have multiple options that each have strengths and weaknesses (informed by multiple-attribute utility theory). They should be used in cases where it's worthwhile to spend some time and energy on a decision - where the decision is significant. A good rule of thumb for telling what is potentially significant is to see whether a decision falls into any of the following categories:

- 1) Major decision, such as moving to a new city, deciding on a career, hiring an employee, making a major investment in a new project, etc.

- 2) Smaller one-time decisions about things you frequently interact with, such as choosing an office desk, a fitness program, a hobby
- 3) Small but habitual decisions, such as choosing a breakfast cereal to eat or the main source of office supplies for your workplace

The first part outlines the 7 steps for making wise decisions. The second part goes through two case studies. To make your calculations easier and more intuitive, you can use a web app specifically developed to use with this process, available at this link:

<https://intentionalinsights.org/making-the-rightcall-on-significant-decisions/>



## **Part 1: 7 Steps for Avoiding Disastrous Decisions**

### **Step 1**

Write out all relevant attributes for your decision. You can do so on a computer, on paper, or in a mind-mapping software, depending on your preferences, but then put them into this web app for easing your calculations and guiding you through the process.

### **Step 2**

Give weights to each of your attributes, from 1-10 on their importance to you (1 lowest importance, 10 highest).

### **Step 3**

Rank each option that you are considering choosing on all the attributes in a decision matrix table, from 1-10 on how good they are (1-poor, 10-great)

## **Step 4**

Using the table, multiply weights by rankings, and put them in the table to get your top choice

## **Step 5**

Check with your gut. Does the answer you got feel aligned with your intuitions? Would you be surprised if you looked back and wished you made a different decision? Experiment with adjusting weights and rankings to address gut feelings, but be cautious about trying to get the numbers to fit some predetermined choice.

## **Step 6**

Check for potential thinking errors that are relevant to you personally and play around with adjusting weights and rankings to address such errors. The most significant ones to watch out for are loss aversion, status quo bias, confirmation bias, attentional bias, overconfidence, optimism bias, pessimism bias, and halo and horns effect.

## **Step 7**

Make your choice and stick with it. This precommitment will help reduce feelings of anxiety and doubt, and help you be happier. Don't go back to reassess unless salient new evidence emerges that would influence your rankings and/or weights. Feelings of doubt don't constitute salient evidence. Decide in advance what you would consider to constitute salient evidence, so that you are not swayed by attentional bias later.

## **Part 2: Guidelines for Applying These Steps**

### **Step 1**

Write out all relevant attributes for your decision. You can do so on a computer, on paper, or in a mind-mapping software, depending on your preferences, but then put them into this web app in order to ease your calculations and receive guidance throughout the process.

Below are some examples of attributes for different decisions.

#### **Choosing a new city to move to:**

Social life, career prospects, culture, leisure activities, cost of living, climate and environment, proximity to friends and family, and other attributes of importance to you.

**Choosing a new long-term collaborative business partnership:**

The collaborator's professional experience, the resources involved, the trustworthiness of the collaborator, the collaborator's fit to your personality/style, long-term prospects

**Choosing a new office desk:**

Cost, comfort, aesthetics, drawer space, surface space, fit to your office space and other decor, quality of construction and durability, and whatever else you consider salient

**Choosing a breakfast cereal:**

Calories, other nutrition, convenience, taste, cost, aesthetics, environmental impact, brand, and other attributes you deem significant

## Step 2

Give weights to each of your attributes based on their importance to you using numbers between 1 (not important) and 10 (extremely important).

Don't spend too much time agonizing over the exact numbers. Your goal is to give an intuitive estimation of how important each attribute is to you in comparison to the others. You'll have an opportunity to revisit the weights later.

***NOTE:*** *If you are making this decision as a team - for instance, a team in a corporation deciding on where to move the corporate headquarters – start by discussing the reasons for giving certain weights to each of your attributes as a team. Then, each of you should give your own assessment privately, independently, and anonymously, in order to minimize various biases due to group influence and social hierarchy. This approach has been shown by research to be most likely to result in the best decision.*

Below are some examples of weights given to attributes for different decisions.

### **Choosing a new city to move to:**

Let's say you just graduated from a small liberal arts school and are considering where to move to start searching for a new job. You plan to live in this city for the next few years, and care most about career prospects and cost of living. You care somewhat about social life, leisure, culture, and proximity to friends and family, and a bit about culture and environment. You would care more about the latter attributes if you intended to live there permanently, but you are quite open to moving after you build up your career. So this is how you might weigh the rankings for each:

Social life (6), career prospects (10), culture (6), leisure activities (5), cost of living (8), climate and environment (3), proximity to friends and family (5)

### **Choosing a new long-term collaborative business partnership:**

Let's say you are deciding whom to go with for a major one-year contract to provide a service

for your business. You want to choose one vendor with whom you'd like to stick not only for the next year, but also longer if you like the partnership. You want to find a balance between the experience of the vendor, the resources involved (in this case, the costs of the service), the trustworthiness of the collaborator, the fit between your personality and style and the collaborator since services involve substantial interactions, and the future long-term prospects of the collaboration. So this is how you might weigh the rankings for each:

Experience (7), costs (8), trustworthiness (8), the collaborator's fit to your personality/style (6), long-term prospects (4)

### **Choosing a new office desk:**

Cost (4), comfort (10), aesthetics (8), desk drawer space (1), desk top space (7), fit to your office space and other decor (8), quality of construction and durability (4)



### Choosing a breakfast cereal:

Calories (3), other nutrition (7),  
convenience (7), taste (6), cost (10),  
aesthetics (2), environmental impact (4),  
brand (3)

### Step 3

Rank each option on a scale from 1 (poor) to 10 (great) for all the attributes using a decision matrix table.

Below are sample tables for choosing a new city to move to and for choosing a new long-term collaborative business partnership. You can use the same principles to make a table for choosing an office desk or a new breakfast cereal or anything else.

**NOTE:** *If you are making this decision as a team, first discuss the reasons for ranking each attribute. Then, each team member should come up with their own rankings privately, independently, and anonymously, in order to minimize biases due to group influence and social hierarchy.*

## **Choosing a new city to move to:**

Let's say that you narrowed your search to five cities because all have friends or family who can help you find a job in your field of marketing: Boston, Houston, Columbus, Los Angeles, and Little Rock.

You'll rank each one based on your existing evidence for and current beliefs about the quality of each option for each of your attributes. Try to be as objective as possible when doing so, and don't let your desire for a certain outcome influence your ranking. Don't spend too much time trying to give an exact ranking. Your goal is to give an intuitive estimation of how important each one is to you in comparison to the others. You'll have an opportunity to revisit these rankings later.

### *Social life*

You have a number of friends in Boston, who told you good things about social activities there, and you also know you can have a good time with them, so you'll rank it a 7 as likely

providing you with a good social experience. Your friends in Houston honestly told you that they have trouble making social connections, although they had some success, and so you decided to rank it a 4. Your friends in Columbus have pretty good things to say about its social life, and so you ranked it a 7. Los Angeles, you know from your friends, has a great social life, better than Boston or Columbus. Yet it's hard to get to different places due to traffic, so you estimate that your social life will have overall less quality than in Boston or Columbus, but better than in Houston, so a 6. Finally, Little Rock, where you grew up and most of your family and many of your friends currently live. You know your social life will be quite good there, but you also will not have as much of an opportunity to grow and have diversity in your social life, so you ranked it 9.

### *Career*

Boston has good marketing opportunities and career growth potential, so a 7. So does Houston. Columbus is slightly better, as it's known as a center for marketing. Los Angeles is best. Little Rock - not so much.

### *Culture*

Boston is pretty great, if a little pricey. Houston, from what your friends told you, does so-so. Columbus does pretty well for a mid-size city. Los Angeles is awesome, but again the traffic and driving issue drag it down. Little Rock doesn't have that much fun cultural stuff going on, from your experience growing up there.

### *Leisure*

Boston has a lot of good stuff, so it's a 7. Houston gets a 5 on this one, according to accounts from your friends. Columbus is pretty good, so a

6. Los Angeles is great, and you especially appreciate the opportunity to explore nature in California, so it gets an 8 in spite of driving challenges. Little Rock has good opportunities for leisure with family, but that comes with a cost of having to attend lots of family activities, so a 5.

*Cost of living*

Boston is pretty expensive, so a 2. Houston gets a 5, as it's significantly better than Boston. Columbus is even better, a 7. Los Angeles is worst, at 1. Little Rock is pretty good, with the likelihood of family support, so a 9.

*Climate and environment*

Since you don't like winter, Boston is a 2. Houston, by contrast, is warm and sunny, so a 7. Columbus is decent, so a 5. You really don't like the idea of living in a place with lots of smog, so Los Angeles gets a 3. Finally, you like the weather in Little Rock, so a 7.

*Friends and family*

You have a number of friends in Boston, so a 5. Houston has slightly fewer, at a 4, and Columbus a couple more than Boston, so a 6. You don't have many friends in Los Angeles, so a 2. Little Rock is a 10.

	Social life (6)	Career (10)	Culture (6)	Leisure activities (5)	Cost of living (8)	Climate and environment (3)	Friends and family (5)	Total
Boston	7	7	9	7	2	2	5	
Houston	4	7	4	5	5	7	4	
Columbus	8	8	6	6	7	5	6	
Los Angeles	6	10	7	8	1	3	2	
Little Rock	9	4	3	5	9	7	10	

**Choosing a new long-term collaborative  
business partnership:**

Let’s say you narrowed your search down to four potential vendors. John leads a local company that has a good history of providing quality services for a relatively high cost. Mary, your friend, is just starting up a new local company that is providing the service you need. Your company would be her first major contract, so she’s willing to cut you a deal. Sierra is the branch manager of a major

national corporation that provides the service for a reasonable price, but has had some customer complaints. Candice is the head of a well-known international company in the Philippines that offers the service you need at a very low cost.

You'll rank each one based on your existing evidence for and current beliefs about the quality of each option for each of your attributes. Try to be as objective as possible when doing so, and don't let your desire for a certain outcome influence your ranking. Don't spend too much time trying to give an exact ranking. Your goal is to give an intuitive estimation of how important each one is to you in comparison to the others. You'll have an opportunity to revisit these rankings later.

### *Experience*

John has solid professional experience, but has never operated outside of the state, whereas you have offices across the United States and Canada, so you rank him a 6. Mary has worked in providing this service, but never led her

own company, so you rank her a 1. Sierra's company has a good track record of professional experience, so you rank them at a 10. Candice's company has a good track record, but does not know the market in the US and Canada as well as Sierra's company, so you rank Candice's company at an 8.

#### *Costs*

John's services are pricey, so you rank him at 1. Mary is willing to cut you a great deal, so you rank her costs at 10. Sierra's company provides services that are mid-price range, so you rank them at 5. Candice's offer came in just a bit above Mary's, so you rank her at 9.

#### *Trustworthiness*

John has a great reputation, but you don't know him personally and are not fully confident about his ability to provide services well to your offices outside the local area, so you rank him



at 8. You trust Mary as a friend, and know she won't deceive you intentionally. However, you also know she doesn't have much experience running a business, and so rank the trustworthiness at 6 to account for that. For Sierra, the company has had some mixed reviews, so you put the trustworthiness at 5. You're really not sure about Candice, because while her company has had good reviews internationally, it does not have a lot of experience in the US, so you rank her at 3.

*Fit to your personality/style*

You like John's straight-talking manner and honesty, and think you'll be a solid fit, so rank him at 8. Mary's a good friend, and you rank her at 10. Sierra is appropriately professional, but you don't really click, so you rank her at 4. Candice has struck you as someone who is over-eager for your business, and you're not sure about her, so you rank her at 3.

### *Long-term prospects*

You think John has pretty solid long-term potential, with the caveat of concerns about lack of experience across the US and Canada, so an 8. You are confident Mary will succeed in the long run, and put a 7. Sierra has really solid long-term prospects, as the company has been around for a while, so a 10. Candice's company has been around for as long as Sierra's, so if everything works out for the year-long contract, it will be fine in the long run, so a 10.

	Experience (7)	Costs (8)	Trustworthiness (8)	Fit (6)	Long-term prospects (4)	Total
John	6	1	8	8	8	
Mary	1	10	6	10	7	
Sierra	10	5	5	4	10	
Candice	8	9	3	3	10	

## Step 4

Using the table from the previous step, multiply weights by rankings and put the result in the *Total*

column. The option with the highest total score is your top choice.

### **Choosing a new city to move to:**

#### *Boston*

##### Social life

Weight	6
Ranking	7
Total score	$6 \times 7 = 42$

##### Career

Weight	10
Ranking	7
Total score	$10 \times 7 = 70$

##### Culture

Weight	6
Ranking	9
Total score	$6 \times 9 = 54$

##### Leisure activities

Weight	5
Ranking	7
Total score	$5 \times 7 = 35$

Cost of living

Weight            8  
Ranking           2  
Total score     $8 \times 2 = 16$

Climate and environment

Weight            3  
Ranking           2  
Total score     $3 \times 2 = 6$

Friends and family

Weight            5  
Ranking           5  
Total score     $5 \times 5 = 25$

Total for Boston

$$42 + 70 + 54 + 35 + 16 + 6 + 25 = 248$$

Continue to do the same math for each city, and you will get the results below.

	Social life (6)	Career (10)	Culture (6)	Leisure activities (5)	Cost of living (8)	Climate and environment (3)	Friends and family (5)	Total
Boston	7	7	9	7	2	2	5	248
Houston	4	7	4	5	5	7	4	224
Columbus	8	8	6	6	7	5	6	295
Los Angeles	6	10	7	8	1	3	2	245
Little Rock	9	4	3	5	9	7	10	280

The top choice is Columbus, closely followed by Little Rock.

**Choosing a new long-term collaborative business partnership:**

*John*

Experience

Weight	7
Ranking	6
Total score	$6 \times 7 = 42$

Costs

Weight	8
Ranking	1
Total score	$8 \times 1 = 8$

Trustworthiness

Weight	8
Ranking	8
Total score	$8 \times 8 = 64$

Fit

Weight        6  
Ranking       8  
Total score    $6 \times 8 = 48$

Long-term prospects

Weight        4  
Ranking       8  
Total score    $4 \times 8 = 36$

Total for John

$42 + 8 + 64 + 48 + 36 = 198$

Continue to do the same math for each vendor, and you will get the results below.

	Experience (7)	Costs (8)	Trustworthiness (8)	Fit (6)	Long-term prospects (4)	Total
John	6	1	8	8	8	198
Mary	1	10	6	10	7	223
Sierra	10	5	5	4	10	214
Candice	8	9	3	3	10	192

The top choice is Mary, followed by Sierra.

## Step 5

Check with your gut. Does the answer you got feel aligned with your intuitions? Would you be surprised if you looked back and wished you made a different decision? Experiment with adjusting weights and rankings to address gut feelings, but be cautious about trying to get the numbers to fit some predetermined choice.

**NOTE:** *If you are making this decision as a team, each team member should do this step privately, independently, and anonymously, in order to minimize biases due to group influence and social hierarchy.*

### **Choosing a new city to move to:**

Looking back at the choices, you are surprised that your home town (score 280, second highest) came so close to the top (highest score was 295), because you just graduated from college and are choosing a new place to move to. You notice in your gut a certain reluctance to go back to Little Rock, despite the comfort of friends and family. You introspect and figure out that what's

bothering you is that you would feel like you would be going back to a stage of your life that you outgrew. You want to develop further and feel like the closeness of your family and old friends would be stifling your opportunities to develop as an independent adult. So you go back and revise the weight on proximity to friends and family to 3 instead of 5. Here's the new table:

	Social life (6)	Career (10)	Culture (6)	Leisure activities (5)	Cost of living (8)	Climate and environment (3)	Friends and family (3)	Total
<b>Boston</b>	7	7	9	7	2	2	5	238
<b>Houston</b>	4	7	4	5	5	7	4	216
<b>Columbus</b>	8	8	6	6	7	5	6	283
<b>Los Angeles</b>	6	10	7	8	1	3	2	241
<b>Little Rock</b>	9	4	3	5	9	7	10	260

The updated totals place your home town, Little Rock, at 260, further behind Columbus, which is now at 283. Your gut feels more comfortable with this larger gap.



**Choosing a new long-term collaborative business partnership:**

Looking over the numbers, you realize that you actually value long-term prospects more than you initially thought. You don’t want to keep making this decision year after year if the collaboration doesn’t work out. So you raise the weight on long-term prospects to 6 instead of 4, and do the math again. The table now looks as follows:

	Experience (7)	Costs (8)	Trustworthiness (8)	Fit (6)	Long-term prospects (6)	Total
John	6	1	8	8	8	214
Mary	1	10	6	10	7	237
Sierra	10	5	5	4	10	234
Candice	8	9	3	3	10	212

The top choice is still Mary, but now it’s almost a tie with Sierra, and you find yourself reluctant to go with the top choice.

You review the weights again and decide that you’d like to assign a higher value to fit, because having a good fit to your personality and style is a significant component of how

successful a new business relationship would be. As a result, you give Fit a weight of 8 instead of 6.

	Experience (7)	Costs (8)	Trustworthiness (8)	Fit (8)	Long-term prospects (6)	Total
John	6	1	8	8	8	230
Mary	1	10	6	10	7	257
Sierra	10	5	5	4	10	242
Candice	8	9	3	3	10	218

Now Mary is in first place and Sierra is a significantly more distant second place.

## Step 6

Check for potential thinking errors that are relevant to you personally and play around with adjusting weights and rankings to address potential thinking errors. The most significant ones to watch out for are loss aversion, status quo bias, confirmation bias, attentional bias, overconfidence, optimism bias, pessimism bias, and halo and horns effect.

**NOTE:** *If you are making this decision as a team, start by providing an overview of the common thinking errors for the team. Then each team member should*

*complete this step privately, independently, and anonymously, in order to minimize biases due to group influence and social hierarchy.*

### Choosing a new city to move to:

Let's say you acknowledge that you tend to be overconfident and optimistic. In fact, research suggests that both of these are very common cognitive biases. You consider whether this might influence your decision-making and decide that these biases might influence your assessment of career prospects. So you decrease your evaluation of your career ranking - not the weight of the attribute - for each city by two. Here is the new table.

	Social life (6)	Career (10)	Culture (6)	Leisure activities (5)	Cost of living (8)	Climate and environment (3)	Friends and family (3)	Total
Boston	7	5	9	7	2	2	5	218
Houston	4	5	4	5	5	7	4	196
Columbus	8	6	6	6	7	5	6	263
Los Angeles	6	8	7	8	1	3	2	221
Little Rock	9	2	3	5	9	7	10	240

Now Columbus is at 263, still in first place ahead of Little Rock, which is at 240.

### **Choosing a new long-term collaborative business partnership:**

You evaluate the situation and have to admit to yourself that you are probably suffering from some halo effect with regards to Mary. This thinking error causes us to think better of a person as a whole if we like one aspect of that person. Being honest with yourself, you know that most new businesses fail, and you should downgrade Mary's long-term prospects. So you change her ranking on the attribute of long-term prospects from 7 to 3.

	Experience (7)	Costs (8)	Trustworthiness (8)	Fit (8)	Long-term prospects (6)	Total
John	6	1	8	8	8	230
Mary	1	10	6	10	3	233
Sierra	10	5	5	4	10	242
Candice	8	9	3	3	10	218

Now the top choice is Sierra, with Mary in second place and only slightly ahead of John, who is in third.

## **Step 7**

Make your choice and stick with it. Precommitment will help reduce feelings of anxiety and doubt and will help you be happier. Don't go back to reassess unless salient new evidence emerges that would influence your rankings and/or weights. Feelings of doubt don't constitute salient evidence. Decide in advance what you would consider to constitute salient evidence, so that you are not swayed by attentional bias later.

### **Choosing a new city to move to:**

You choose to move to Columbus. Since you know you don't really want to be in your second-place city, Little Rock, you don't look back on your decision.

### **Choosing a new long-term collaborative business partnership:**

You confidently choose to work with Sierra and the national company that

she represents, and you delicately break the disappointing news to Mary.

## Final Thoughts

These are the key 7 research-based steps to effective decision-making for any significant decision with multiple options and attributes to consider. This approach can be used for any area of life: professional, financial, social, romantic, civic, philanthropic, leisure, etc. It can be used by individuals, teams, organizations, or institutions. This should help you make the wisest possible decision toward reaching your goals.

## References

- Ariely, D., & Wertenbroch, K. (2002). Procrastination, deadlines, and performance: Self-control by precommitment. *Psychological science*, 13(3), 219-224.
- Burton, S., Cook, L. A., Howlett, E., & Newman, C. L. (2015). Broken halos and shattered horns: overcoming the biasing effects of prior expectations through objective information disclosure. *Journal of the Academy of Marketing Science*, 43(2), 240-256.
- Butler, J., Morrice, D. J., & Mullarkey, P. W. (2001). A multiple attribute utility theory approach to

- ranking and selection. *Management Science*, 47(6), 800-816.
- Chapin, J. (2001). Self-protective pessimism: Optimistic bias in reverse. *North American Journal of Psychology*, 3(2).
- Huber, G. P. (1974). Multi-attribute utility models: A review of field and field-like studies. *Management Science*, 20(10), 1393-1402.
- Genesove, D., & Mayer, C. (2001). Loss aversion and seller behavior: Evidence from the housing market. *The Quarterly Journal of Economics*, 116(4), 1233-1260.
- Mahajan, J. (1992). The overconfidence effect in marketing management predictions. *Journal of Marketing Research*, 29(3), 329.
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of general psychology*, 2(2), 175.
- Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of risk and uncertainty*, 1(1), 7-59.
- Sharot, T. (2011). The optimism bias. *Current biology*, 21(23), R941-R945.
- Van Laer, T., De Ruyter, K., & Cox, D. (2013). A walk in customers' shoes: How attentional bias modification affects ownership of integrity-violating social media posts. *Journal of interactive Marketing*, 27(1), 14-27.
- Yang, J. B., & Xu, D. L. (2002). On the evidential reasoning algorithm for multiple attribute

decision analysis under uncertainty. *IEEE Transactions on Systems, Man, and Cybernetics-Part A: Systems and Humans*, 32(3), 89-304.



# **Chapter 16:**

## **Guidelines on Conducting a Premortem to Avoid Project or Process Disasters**

These guidelines help you avoid project or process disasters by identifying and solving problems before they occur, by guiding you through a project premortem exercise and relying on behavioral science research on hindsight and prospective hindsight. Unlike a postmortem, where you analyze after the fact why a project failed, a premortem helps you analyze in advance all the reasons for why a project or process might fail and address these reasons. It should be used at the start of any significant project and to check in regularly on processes. The premortem exercise is best done in teams, and should involve all relevant stakeholders, or representatives of all relevant stakeholders.

You can also do the premortem by yourself for an individual decision, but consider showing it to others to get their external perspective on whether you actually addressed all the salient issues.

## **Part 1: 6 Steps for Conducting a Premortem Exercise to Avoid Project or Process Disasters**

### **Step 1**

Gather all the people relevant for making the decision in the room, or representatives of the stakeholders if there are too many to have in a group (a good number is 6, and not more than 10 people to ensure a manageable discussion). Make sure the people in the room have the most expertise in the decision to be made, rather than simply gathering the higher-up personnel. The goal is to address what might go wrong and how to fix it, and expertise here is as important as authority. At the same time, have some people with the power to decide how to address problems that might be uncovered. Consider recruiting an independent

facilitator who is not part of the team to help guide the exercise. If you are making the decision by yourself, write out various stakeholders that are relevant to the project - even different aspects of yourself that have competing goals.

## **Step 2**

Explain the exercise to everyone by describing all the steps, so that all participants are on the same page about the exercise.

## **Step 3**

Hold a briefing on the project or process, and then ask all the stakeholders to imagine that they are in a future where the project or process definitely failed. Then, have each participant ANONYMOUSLY write out plausible reasons for this disaster. These should include internal decisions under the control of the project team, such as cost and staffing, as well as external events, such as an innovation introduced by a competitor. Encourage participants to focus particularly on reasons they would not typically bring up because it would be seen as rude or impolitic, such as criticizing someone's competency,

or even dangerous to one's career, such as criticizing the organization's strategy. Emphasize that everyone's statements will remain anonymous. The facilitator gathers everyone's statements, and then reads aloud all the reasons for project failure, ensuring anonymity in the process. If you are doing the premortem by yourself, write out separate reasons for project failure from the perspective of each relevant role.

#### **Step 4**

Discuss all the reasons brought up, paying particular attention to ones that are rude, impolitic, and dangerous to careers. Then assess ANONYMOUSLY the probability of each reason for failure, ideally placing percentage probabilities, or if this is difficult, using terms like "highly likely", "somewhat likely", "unlikely", and "very unlikely." Also consider how harmful each reason for failure might be, and pay more attention to the ones that are most harmful. Here, the expertise of individual members of the team will be especially useful. The leader or person assigned as note-taker writes down all the problems brought up, as well as assessments of the

probabilities. If you are doing the premortem by yourself, get outside input at this stage.

### **Step 5**

Decide on several failures that are most relevant to focus on, and brainstorm ways of solving these. For this step, it is especially important to have people with authority in the room. The leader or note-taker writes down the possible solutions. If you are doing the premortem by yourself, get outside input at this stage.

### **Step 6**

The leader revises the project or process based on the feedback, and, if needed, repeats the exercise.

## **Part 2:**

# **Two Case Studies Illustrating the Steps in a Premortem Exercise**

### **Step 1**

#### **Case Study A**

Mid-sized software consulting company based in San Francisco of about 300 employees wanted to transition to a new performance management system, from one where software engineers are evaluated based on hours billed, to a team-based, peer review evaluation system. The leader of the transition project was the Vice-President in charge of Human Resources, who asked me (the author of the tip sheet) to serve as the facilitator. Based on our analysis of the relevant stakeholders, we gathered the following: the HR VP, the CEO, the Finances VP, two mid-level managers in charge of engineers, and two engineers, one who is typical of the majority of white males in the company and one hispanic woman female who heads the Diversity committee in the company.

## **Case Study B**

The Executive Director (ED) of a mid-sized nonprofit was making a decision on whether to seek a different job. He turned to me as his executive coach, and asked for guidance. I recommended the premortem exercise, and coached him through writing out a variety of relevant roles: the part of him oriented toward improving the world, the part of him that cared about financial security, the part of him focused on his mental and emotional well-being, and the part of him concerned about the mission of the nonprofit where he worked.

## **Step 2**

### **Case Study A**

The HR VP asked me to explain the exercise to all the participants. I outlined the basics, and the CEO pushed back on the question of anonymity. I explained that it is especially important for everyone to be assured of anonymity to avoid several problems that typically accompany group decision-making.

- The phenomenon of groupthink, when everyone forms a consensus opinion based on the prevailing opinion of people with authority in the room.
- The overconfidence bias, the intuitive tendency to be overconfident, especially by those invested in any given project.
- The shoot-the-messenger or mum effect, the tendency to avoid passing bad news up the organizational hierarchy for fear of being associated with negative information by one's bosses.

Eventually, after some more back-and-forth, the CEO agreed about the importance of anonymity.

### **Case Study B**

I explained the relevant steps to the ED, and he was fine with it.

### **Step 3**

#### **Case Study A**

All the team participants spent 15 minutes writing out a variety of reasons for project failure



that seemed plausible to them. Besides the predictable responses, a number of unexpected reasons came out that the project leader, the HR VP, did not anticipate:

- 1) Failure because the upper management did not have sufficient buy-in for the new performance management process, and would not be willing to bear the short-term pains of change for the long-term benefits.
- 2) Failure because the team-based peer review system would be unfair and discriminatory to minority software engineers, since white males would be likely to rank other white males higher.
- 3) Failure due to the potential of silos, where teams focused only on the well-being of their projects and did not collaborate across teams.
- 4) Failure due to misalignment of financial incentives with client needs, with team members giving each other positive reviews even if the clients were dissatisfied.

These concerns did not emerge earlier, in part because they were somewhat awkward and politically dangerous to voice. The premortem exercise enabled these concerns to be heard and addressed.

### **Case Study B**

The ED spent about 40 minutes writing out a variety of reasons for failure from the different perspectives. Some unexpected ones were:

- 1) Failure because the nonprofit where the ED currently works would suffer greatly and even close up because the ED left (the ED was the founder of the nonprofit).
- 2) Failure due to the ED not having sufficient digital savvy for many of the new jobs he would be interested in taking.
- 3) Failure because the ED would be leaving an environment where he was the founder and had certain privileges that an ordinary ED would not have, to an environment where he would not be, thus undermining both his job performance and mental health and well-being.

## **Step 4**

### **Case Study A**

For concern 1, the team members estimated the probability at 20%.

For concern 2, the probability estimate was 60%.

For concern 3, the probability estimate was 30%.

For concern 4, the probability estimate was 55%.

The team members rated concern 2 as especially dangerous, as it would harm the internal culture of the organization and might pave the way to lawsuits as well.

### **Case Study B**

For concern 1, the ED set a probability estimate of 40%.

For concern 2, the probability estimate was 30%.

For concern 3, the probability was 70%.

The ED was especially worried about concern 3, not only due to its high probability, but also due to his history of mental illness.

## **Step 5**

### **Case Study A**

For concern 1, the solution was relatively easy: the CEO and other senior staff committed to evaluating the transition from a long-term perspective, giving the implementation 12 months before evaluating the results.

For concern 2, the solution was somewhat harder. After an extensive discussion, it was decided that: A) this concern would be highlighted to teams prior to every peer review evaluation, and B) the team-based peer review system itself would be evaluated for any sort of systemic bias against minorities by the Diversity committee, and the scores of minorities would be adjusted for any discrimination. This turned out to be a particularly healthy conversation, as one outcome of the peer review system would be to make explicit any implicit bias, and thus enable the team to address such bias proactively.

For concern 3, the team-based peer review system was adjusted to include teams evaluating other teams with whom they were collaborating, with part of the performance bonus for each team determined by this evaluation. The evaluation of teams by other teams made each team accountable to those they collaborated with - for instance, the software development team was evaluated by the marketing team that marketed the software developed by the software development team. The evaluation of teams by other teams reduced the likelihood of any silos.

For concern 4, the group decided to revise the team-based peer review system to give middle-level managers - the personnel who coordinated with clients - an evaluation of the team itself based on meeting client expectations and needs, with the performance bonus for the team coming in part from the middle-level manager evaluation.

## **Case Study B**

For concern 1, the ED and I discussed the matter, and came to a conclusion that it would be highly unlikely for the nonprofit to suffer greatly or fail - his concern was exaggerated, in other words. We revised the estimate down to 5%, and he was comfortable with that scenario.

For concern 2, the ED decided to address it through getting professional development in various digital skills that he previously left to his subordinates before looking for a new position.

For concern 3, the ED committed to getting a professional mentor who worked as an ED in several nonprofits to help in his professional transition.

## **Step 6**

### **Case Study A**

The HR VP introduced the needed revisions into the plan, and the company decided that another premortem was not needed. They implemented

the performance management transition, and the 12-month evaluation afterward showed an increase in productivity by 23% and client satisfaction by 27%.

### **Case Study B**

The ED engaged in intense professional development in digital skills by taking several classes, and also worked with his professional mentor, and then repeated the premortem in three months. We did not uncover any salient new problems, and he began his job search. It took a bit longer than he thought it would, as digital skills did prove to be a problem, but his professional development in those skills, evidenced by the classes he was taking, helped address the concerns of potential employers. He found a job four months after he began looking for it, and was quite successful in his new position.

## Final Thoughts

These 6 steps to avoiding failure by conducting a premortem can be applied to projects or processes in any area of life, professional or personal. It can be used by individuals, but is especially effective for teams, organizations, or institutions. This should help maximize your likelihood of avoiding failure on any project or process!

## References

- Adams, P. A., & Adams, J. K. (1960). Confidence in the recognition and reproduction of words difficult to spell. *The American Journal of Psychology*, 544-552.
- Buehler, R., Griffin, D., & Ross, M. (1994). Exploring the "planning fallacy": Why people underestimate their task completion times. *Journal of personality and social psychology*, 67(3), 366.
- Büyükkurt, B. K., & Büyükkurt, M. D. (1991). An experimental study of the effectiveness of three debiasing techniques. *Decision Sciences*, 22(1), 60-73.
- Gallop, D., Willy, C., & Bischoff, J. (2016). How to catch a black swan: Measuring the benefits of the premortem technique for risk identification. *Journal of Enterprise Transformation*, 6(2), 87-106.



- Kavallo, D., & Kahneman, D. (2003). Delusions of success: How optimism undermines executive decisions. *Harvard Bus Rev.*
- Klayman, J., Soll, J. B., Gonzalez-Vallejo, C., & Barlas, S. (1999). Overconfidence: It depends on how, what, and whom you ask. *Organizational behavior and human decision processes*, 79(3), 216-247.
- Klein, G. (2007). Performing a project premortem. *Harvard Business Review*, 85(9), 18-19.
- Malmendier, U., & Tate, G. (2005). CEO overconfidence and corporate investment. *The journal of finance*, 60(6), 2661-2700.
- Meissner, P., & Wulf, T. (2015). The development of strategy scenarios based on prospective hindsight: an approach to strategic decision making. *Journal of Strategy and Management*, 8(2), 176-190.
- Mitchell, D. J., Edward Russo, J., & Pennington, N. (1989). Back to the future: Temporal perspective in the explanation of events. *Journal of Behavioral Decision Making*, 2(1), 25-38.
- Morewedge, C. K., Yoon, H., Scopelliti, I., Symborski, C. W., Korris, J. H., & Kassam, K. S. (2015). Debiasing decisions: Improved decision making with a single training intervention. *Policy Insights from the Behavioral and Brain Sciences*, 2(1), 129-140.

- Rosen, S., & Tesser, A. (1970). On reluctance to communicate undesirable information: The MUM effect. *Sociometry*, 253-263.
- Shepperd, J. A., Carroll, P., Grace, J., & Terry, M. (2002). Exploring the causes of comparative optimism. *Psychologica belgica*, 42(1/2), 65-98.
- Svenson, O. (1981). Are we all less risky and more skillful than our fellow drivers?. *Acta psychologica*, 47(2), 143-148.
- Turner, M. E., & Pratkanis, A. R. (1998). Twenty-five years of groupthink theory and research: Lessons from the evaluation of a theory. *Organizational behavior and human decision processes*, 73(2-3), 105-115.
- Veinott, B., Klein, G. A., & Wiggins, S. (2010, May). Evaluating the effectiveness of the PreMortem Technique on plan confidence. In *Proceedings of the 7th International ISCRAM Conference*.
- Wheeler, M. (1987). The need for prospective hindsight. *Negotiation Journal*, 3(1), 7-10.

# ***Conclusion***

Congratulations! Since you've read this book, you now have realistic expectations and true beliefs, and can make the best decisions possible for yourself, your team, and your organization.

Just kidding! Learning about the research-based skills in this book is just the start. It might be a cliché, but it's also an accurate statement: truth-seeking is a journey, not a destination. More than that, truth-seeking is a skill, and research suggests that as any skill, it takes thousands of hours of deliberate practice to gain mastery. However, you can gain a pretty decent level in most skills in a much shorter time period, given appropriate instruction and an opportunity to engage in deliberate practice.

This book provides the manual for truth-seeking skills, and the world provides an unfortunate overabundance of opportunities for deliberate practice in this domain. Do not simply close the pages of this book and put it away: keep referring to its various chapters as you engage in such practice in the world around you. As you encounter various life situations that remind you of what you read in

this book, return to the relevant chapter and reread it. Try out the strategies there, and see what works best for you. Adapt them to your life, preferences, and personality, following the approach described in the chapter on advice. Integrate them into your organization through holding trainings, providing people with a copy of this book, and using the two decision-making strategies on avoiding disastrous decisions and avoiding disasters in projects or processes.

Practicing the skills of truth-seeking will help you develop more realistic expectations and accurate beliefs, which are necessary but not sufficient for making wise decisions that would help you achieve your goals. If you want to learn about these, check out the articles, videos, tip sheets, books, and apps at [intentionalinsights.org](https://intentionalinsights.org) and sign up to the Intentional Insights newsletter. If you would like to bring me in as a speaker, consultant, or coach, email me at [gleb@intentionalinsights.org](mailto:gleb@intentionalinsights.org) and check out my offerings at [GlebTsipursky.com](https://GlebTsipursky.com).

Please also email me any questions you might have about any aspects of the book, or with your feedback about the book; I also invite you to leave

reviews on [Amazon.com](https://www.amazon.com) and on [Goodreads.com](https://www.goodreads.com).  
Thank you, and I wish you well on your truth-seeking journey!



# ***Select Annotated Bibliography***

Ariely, Dan. *Predictably Irrational: The Hidden Forces That Shape Our Decisions*. New York: HarperCollins, 2009

Ariely, Dan. *The Upside of Irrationality: The Unexpected Benefits of Defying Logic at Work and Home*. New York: HarperCollins, 2010

Ariely, Dan. *The Honest Truth About Dishonesty: How We Lie to Everyone--Especially Ourselves*. New York: HarperCollins, 2012

These three books seek to examine the systematic and predictable irrationalities inherent in human thinking. The author's aim is to make people aware of these irrationalities in the hope of helping individuals make more rational decisions, of helping policymakers make more pragmatic public policy and regulations, and helping organizations develop more effective methods of meeting their goals. The style of the book is to list various studies about how our brains go wrong, and then expand on the concepts behind them, while making some

suggestions about how to improve our thinking and decision-making patterns.

Baumeister, Roy F. and John Tierney. *Willpower: Rediscovering the Greatest Human Strength*. New York: The Penguin Press, 2011

This book on willpower and ego depletion is co-written by a prominent psychologist, Baumeister, and a New York Times science reporter, Tierney. Its style combines research, stories, and some advice. The book describes how self-control, which this book refers to as willpower, results in good life outcomes, and goes through how to improve willpower in a number of different contexts. Note that recent research.

Goleman, Daniel. *The Brain and Emotional Intelligence: New Insights*. Northampton: More Than Sound, 2011

This book summarizes the research on emotional intelligence. It examines the four fundamental domains of emotional intelligence: self-awareness, self-management, social awareness, and relationship management. In each of these domains, it explores how to gain



better emotional intelligence to achieve our goals.

Goleman, Daniel. *Social Intelligence: The New Science of Human Relationships*. New York: Bantam Dell, 2006

Social neuroscience is a recent subfield that has discovered that our brain's very design makes it sociable, inexorably drawn into an intimate brain to brain linkup whenever we engage with another person. That neural bridge lets us affect the brain and thus the body of everyone we engage with, just as they do to us. That link is a double-edged sword, as nourishing relationships have a beneficial impact on our mental and physical health, while toxic ones undermine our wellbeing. This book explores the recent findings in social neuroscience, and provides some ideas about how we can manage our mental and physical health in our social engagements, both ourselves and with those we interact.

Heath, Chip and Dan Heath. *Switch: How to Change Things When Change is Hard*. Broadway Books: New York, 2010

The authors depict the primary obstacle in achieving positive change as a conflict that is

built into our brains between the rational mind and the emotional mind. The book uses a story-driven narrative to describe how we can achieve transformative change at any level, from our personal health to society as a whole.

Kahneman, Daniel. *Thinking, Fast and Slow*. New York: Farrar, Straus and Giroux, 2011

In this work the author, a recipient of the Nobel Prize in Economic Sciences for his seminal work in psychology that challenged the rational model of judgment and decision making, has brought together his many years of research and thinking in one book. The author aims to introduce into everyday conversations a better understanding of the nature of and the systematic errors in our judgment, choice, and behavior.

Restak, Richard. *The Naked Brain: How The Emerging Neurosociety is Changing How We Live, Work, and Love*. New York: Harmony Books, 2006

The author argues that neuroscience is in the process of deeply impacting our society, and will become a powerful daily life element in the first half of the 21st century. This is because our expanded understanding of the brain is

increasingly      powerfully      impacting      our  
understanding of how people think and behave.

Thaler, Richard H. and Cass R. Sunstein. *Nudge: Improving Decisions About Health, Wealth, and Happiness*. New Haven: Yale University Press, 2008

The book draws on research in psychology and behavioral economics to defend the concept of libertarian paternalism, namely “nudging” people into being happy and successful through public policy. Sunstein and Thaler state that “the libertarian aspect of our strategies lies in the straightforward insistence that, in general, people should be free to do what they like-and to opt out of undesirable arrangements if they want to do so” (pg. 5). The paternalistic portion of the term “lies in the claim that it is legitimate for choice architects to try to influence people's behavior in order to make their lives longer, healthier, and better” (pg. 5).

Watts, Duncan J. *Everything is Obvious: Once You Know the Answer*. New York: Crown Business, 2011

The author questions people’s reliance on common sense assumptions to understand how other individuals and groups will make decisions and behave. People’s common sense

assumptions of the behavior of others are based on their own common sense understanding of the world, which differs to a smaller or larger extent, from the way other people think about and thus behave in the world; moreover, people generally do not take important environmental factors into consideration when thinking about and predicting the behavior of others. The author suggests instead the need to question our common sense beliefs, to reflect on how other people might have a different common sense than we do, and to rely more on social science to explain how other people will think and behave.