The Brain-Friendly Workplace



WHY TALENTED PEOPLE
ARE QUITTING AND
HOW TO GET THEM TO STAY

FRIEDERIKE FABRITIUS

Foreword by Scott Barry Kaufman

Contents

Foreword		ix
Introduction		1
1	The Neurogap Interview: Julie Linn Teigland, managing partner, EY Europe, Middle East, India, and Africa	5
2	Your Neurosignature: The Good, the Bad, and the Ugly Interview: Dr. Scott Barry Kaufman, author, scientist, and host/creator of *The Psychology Podcast*	23
3	Outcome Culture Interview: Stephan Aarstol, CEO, Tower Paddle Boards and Tower Electric Bikes	43
4	Fun, Fear, and Focus Interview: Dr. Janin Schwartau, global head of learning and transformation, thyssenkrupp	63
5	Nurture Your Neurobalance Interview: Arianna Huffington, CEO, Thrive Global	82
6	Good Stress Interview: Dr. Hubertus Meinecke, managing director	102

and senior partner; chairman, Western Europe, South America, and Africa, Boston Consulting Group (BCG)

7 Wired to Be Tribal 121
Interview: Dr. John Medina, *Brain Rules* author and molecular biologist

8 The Social Neurogap 138
Interview: Claude Silver, chief heart officer, VaynerMedia

9 What about the Children? 158
Interview: Amber Grewal, managing director and partner, chief recruiting/talent officer, BCG

10 Group Flow: The Antidote to Groupthink 177
Interview: Jeff Furman, president, Ben & Jerry's Foundation

Acknowledgments 197

Notes 199

Bibliography 215

Index 217

About the Author 229

Foreword

When Friederike Fabritius asked if I would write the foreword to this book, I immediately said yes! I met Friederike when she was a guest on my show, *The Psychology Podcast*. Ever since then, I've really admired Friederike not just for her work, but also as a person. She is deeply committed to using neuroscience to help people reach their full potential. This resonates with my overarching belief in neurodiversity. I believe that this book is contributing to a broader discussion about how people's brain wirings can be very different from each other and can influence the way we see the world.

I know how this works personally. As a kid growing up in special ed, people didn't know how to classify me because nothing in my school system's rulebook covered understanding a neurosignature for creativity and imagination. So, I think this book is contributing to a broader conversation that deeply resonates with me personally. We need some sort of framework that is understanding and inclusive of different ways of processing information and different ways of seeing the world.

This book also takes a fresh perspective on what it takes for people to flourish in the workplace. It points to a higher north-star goal than a lot of companies tend to focus on. What you find in most companies is that they focus on the company's goal actualization first, and the worker's actualization comes second. What Friederike is saying is that when you focus on neurodiversity, you respect the deeper drives and motivations of people, and the company will naturally achieve better results as an outgrowth.

One thing to keep in mind is that neurosignatures shouldn't be thought of as static. All of our neurosignatures change throughout the day. It's worth thinking thoughtfully through this as a manager as well, about time of day and when you give people a certain task. When I get right out of the bed in the morning, my testosterone neurosignature is very high. But by evening, it's almost nonexistent. I don't want to conquer my goals at eight at night; I want to watch Netflix and chill. Neurosignatures are fluid, and they should serve as guidelines, as a helpful framework in understanding people, rather than as categories and boxes to classify people.

This book highlights the basic fact that we need more thought diversity, but also highlights that people's motivations differ very much from each other. Being able to orchestrate that in a workplace—like an orchestra conductor—is essential. A good conductor is not someone who tells all the instruments how to play but is really good at helping the instruments come together in a harmonious way to have a beautiful sound. That is a very fresh approach.

This book is very timely, as there is so much uncertainty in the world. Stress levels are incredibly high. People are starving for meaning and for a way to understand their unique place in the world and in the workplace. They want to matter. Their need to matter is such a fundamental human need. I think that this book can really play a pivotal role in people feeling like they matter in the workplace by allowing them to bring their unique neurosignature to the table.

But it's not just the brain: the brain and the body are all so deeply interconnected in the environment. Your neurosignature serves as a shorthand—a quick way for people to understand themselves on a deeper level—but it's really part of a bigger system. The neurosignatures interact with the environment, and we know that the need for autonomy is really important in the workplace.

This book can help people increase their sense of mattering as well as a sense of autonomy, a sense that they are making decisions based on their unique being, as opposed to the pressure to perform or to do things just for the sake of external rewards. So, there's also a real intrinsic motivation and fostering of our autonomy that understanding your neurosignature can help provide.

People don't really give themselves the time in life for self-discovery. We don't focus on it because we're constantly trying to meet the demands of others, creating a career and juggling a family. We face so many external demands that we don't think that we even could make time for self-discovery. But the journey of self-actualization—which is my main focus—is being able to recognize that first of all, you're worth it: you're worth understanding, you're worth cultivating a real sense of how you can best contribute to the world. Being able

to say "no" to things that are not right for you is also a very important part of the self-actualization process.

The Brain-Friendly Workplace gives people permission to start seeing themselves in a way that maybe they haven't been able to before. Maybe they have felt it intuitively but haven't been able to put their finger on it. Maybe this book can also inspire them to say "no" to things that haven't been working for them with the self-compassion to realize that it wasn't a good fit. It doesn't mean that they were deeply broken.

Scott Barry Kaufman, PhD
Psychologist, author, host of *The Psychology Podcast*
January 2022

Introduction

We have a once-in-a-century opportunity, right now, to create a better future for work. The old corporate paradigm of extreme hours, little sleep, endless meetings, and nonstop travel is dead. No one wants to go back to that. It's bad for performance and for everyone's mental and physical health. The future of business is hybrid and requires a flexible new paradigm that helps everyone reach peak performance: the brain-friendly workplace.

I'm a neuroscientist and keynote speaker who teaches Fortune 500 executives easy, brain-friendly ways to reach peak performance and experience greater joy and well-being.

Everybody's talking about reinventing work—but no one is sure how to do it. In *The Brain-Friendly Workplace*, I offer a science-backed, field-tested blueprint that my clients already love. Now, they plan to use it to reverse the coming mass exodus of expensively trained and educated professionals and win the talent war.

In July 2021, the *Wall Street Journal* confirmed, "More American professionals are quitting their jobs than at any time during the last two decades . . . as people gravitate to jobs more suited to their skills, interests and personal lives."[1] The 2021 Women in the Workplace study from McKinsey and LeanIn.org reports that two million women could exit corporate America.[2]

My clients need both these problems solved—fast. As Riaz Shah, a global talent leader for EY (formerly Ernst & Young), who leads learning for more than 340,000 people, told me, "Once things open back up fully, those who have been unhappy will make their move to where they really want to be."

The brain-friendly workplace retains talent because it encourages you to work in line with what *your* brain needs to function optimally. It values employees with different kinds of brains for the diverse ideas they bring to their teams. It even values fun! As I tell my clients, "If you're not having fun at work, you're not performing at your best."

In *The Brain-Friendly Workplace*, you'll discover your own "neurosignature," a unique mix of four key brain chemicals that strongly affects your personality and how you process stress and information. You'll learn to hit your "optimal stress point" and manipulate "fun, fear, and focus" so you can easily reach peak performance. Ideas will flow. You'll feel energized, inspired, and alive.

You'll also gain a valuable framework for understanding colleagues with different neurosignatures. This works at home, too. Things that used to annoy my husband and me about each other we now happily chalk up to our different, yet complementary, neurosignatures.

My clients report improved performance, talent retention, and gender diversity for themselves and their employees. Why? Because when you learn how to use fun, fear, and focus to easily enter the flow state, you can get more done in less time. When you get enough sleep, exercise, healthy food, and personal time, you feel happier. When employees feel respected and their needs for child care, remote work options, and flexible schedules are met, they stay. This is especially true for women, which is why the brain-friendly workplace naturally improves gender diversity.

Instead of trying to change the people, my clients are changing the workplace. They're cutting time-wasting meetings and unnecessary travel to the bone, supporting employee biorhythms with flexible schedules, and encouraging "strategic rest" to keep everyone operating at peak performance. Brain-friendly practices provide my clients with a concrete competitive advantage, as they siphon off pools of talent that less-aware companies lose to attrition.

Formerly jet-setting executives are speaking out about how the enforced break from global travel, extreme stress, and protracted workweeks has improved their productivity—and their lives. *New York Times* reporter Ginia Bellafante interviewed her neighbor, a jet-setting investment banker with a young family. Before the shutdown, she notes, "he might call into our monthly condo meetings from Dallas, but he had been in Tokyo the day before and was on his way to Brussels the next."

Bellafante expected the banker to be itching to resume his swanky globe-trotting lifestyle. Surprisingly, he told her, "I have not missed one second of domestic or international travel. What has replaced it? Exercise. Being with my kids. Greater productivity. No one in my world is saying, 'Wow, I can't wait to get back to doing everything the way we did it before.'"[3]

Frankly, an exodus from corporate life had already begun before the global crisis. Highly educated women in particular were ditching corporate life at an alarming rate. According to *Workforce Management*, American companies were spending roughly $8 billion per year on gender diversity training. This included teaching female executives to "lean in" and sending male executives to "unconscious bias training." Yet, these costly efforts were tanking.

In 2019, *Forbes* reported in "Why Women Quit" that female participation in the labor force dropped from 51.4 percent in 1990 to 47 percent in 2020. Only 4.8 percent of Fortune 500 companies have female CEOs. This pathetic percentage of female leaders has been flat since 2010. To cite one example, just 18 percent of Microsoft's top executives are women.

My clients are desperate to get more women into upper management, because workplaces staffed with female executives are more profitable. As CNBC reported in "Companies with Female Executives Make More Money—Here's Why," there is "substantial evidence that gender diversity at the management level enhances a company's performance."[4]

Brain-friendly practices naturally decrease female attrition while raising overall employee satisfaction, productivity, and diversity. What's good for women, it turns out, is good for companies. Create a brain-friendly workplace, and you won't have to organize a single "gender diversity day" ever again. The brain-friendly workplace nurtures and attracts all neurosignatures and empowers them to perform at their best.

In each chapter, I interview a prominent thought leader about this new vision for the future of work. I talk with Thrive Global CEO Arianna Huffington, Boston Consulting Group Managing Director and Partner, Chief Recruiting/Talent Officer Amber Grewal, cognitive scientist/author/podcaster Dr. Scott Barry Kaufman, *Brain Rules* author John Medina, longtime Ben & Jerry's board member Jeff Furman, EY Women Fast Forward Global Leader Julie Linn Teigland, *The Five-Hour Workday* author and Tower CEO Stephan Aarstol, VaynerMedia Chief Heart Officer Claude Silver, and more.

They confirm that a huge cultural shift is taking place. The shutdown helped executives like our investment banker realize that they like getting enough sleep and being there for their children. I want to encourage them to compete about that, instead of about how many hours they work. Soon, they'll be comparing sleep trackers and bragging about how much quality sleep they get.

My clients share their stories, too. In chapter 4, Dr. Janin Schwartau, global head of learning and transformation for thyssenkrupp, describes the fluid new workspace and flexible schedules she designed for her seventy-person team after experiencing my brain-friendly program. Dr. Schwartau established a

personal meditation practice after our workshop as well. She also mentions my favorite participant—a cranky sixty-year-old who declared, "If God had wanted me to move fast, he would have given me wheels." He became an avid jogger after learning that exercise staves off dementia better than any drug.

Each chapter of *The Brain-Friendly Workplace* also delivers brain-health tips, fun stories, and weird neuroscience nuggets. You'll learn about the Siberian hamsters whose testicles shrank when the hamsters were dosed with melatonin and why Angelina Jolie may have a high-testosterone brain. You'll discover how a role-playing game transformed a new chemo drug from a dog into a top performer and why I can't stand yoga (hint: it's my neurosignature).

The fight against discrimination on the basis of gender, race, or sexual orientation is extremely important, and I am behind it 100 percent. In *The Brain-Friendly Workplace*, I also advocate for a new, next-level inclusion based on our invaluable thought diversity as human beings. Diversity isn't only about race, gender, or sexual orientation.

It's also about how you think—and how you choose to work.

1

The Neurogap

> Women are not the problem; they are the answer.
>
> —Julie Linn Teigland

I arrived at the massive top-floor conference room of a five-star hotel ready for a full day of company-sanctioned "lean-in" training. The forty-something instructor wore a tailored navy pantsuit and sensible pumps. Her hair was cut in a crisp bob, laced with expensive blond highlights. She began by explaining to our group of accomplished female executives that men play by different rules and that we must learn to use male power plays if we want to rise to the top.

I was working grueling hours—including lots of international travel—for a top-tier management consulting powerhouse. Women comprised less than 25 percent of the firm's roster and only 5 percent of the partner group. Management was eager to improve these numbers by helping the firm's female executives to get ahead. Sending me and my colleagues to learn how to lean in was a gender-diversity initiative.

As a neuroscientist obsessed with human behavior, I was very excited about attending this training. Could leaning in really help women achieve more power and rise up into the male-dominated upper echelons of the corporate universe?

DON'T SMILE

Our instructor worked the room briskly, shaking hands with each of us. If our grips were "weak," we had to shake her hand until our handshakes met with her approval. My polite squeeze was deemed insufficient. It took several increasingly hardy efforts on my part before she was satisfied. By the time she moved on, I felt like a lumberjack.

After the instructor made her rounds, she had us all work the room, giving each other hearty handshakes and instant feedback. Shouts of "Stronger!" and "That felt like touching a dead fish!" filled the air, accompanied by peals of laughter, met with disapproving glares from our tutor.

Next, we were informed that to be taken seriously, we must always give orders and never ask questions. We were divided into pairs. One woman played the boss; the other played a team member. I had to demand "I need that report in tomorrow!" five times before I succeeded in lowering my girlish voice to sound sufficiently authoritative for our instructor.

There were lots of giggles during this exercise, too. It felt so awkward. To most of us, it felt more natural to ask our team member, "Would you be so kind as to turn in this report by tomorrow? I'd really appreciate it," followed by a smile.

But smiling? Big mistake.

"Don't smile!" our instructor barked. "The men around you will see this as a sign of weakness and low status. You can smile after work." More muffled giggles as she stared us down. She motioned us to sit around an enormous conference table.

"When you're seated at a table like this in a meeting," she began, "I want you to only address the 'top dog' in the room. Ignore everyone else. When the top dog is listening, you have everyone else's attention."

I raised my hand. She nodded brusquely.

Pitching my voice as low as I could and being careful not to ask a question, I said, "When I meet with my clients, I usually seek to create an inclusive, friendly atmosphere by acknowledging everyone in the room."

"That's weak!" our instructor declared. "Talk to the boss, and everyone else will listen. Shoulders back. Spread out in your chairs. Take up as much space as possible. Don't let anybody invade your space. You are the queen, and nobody touches the queen."

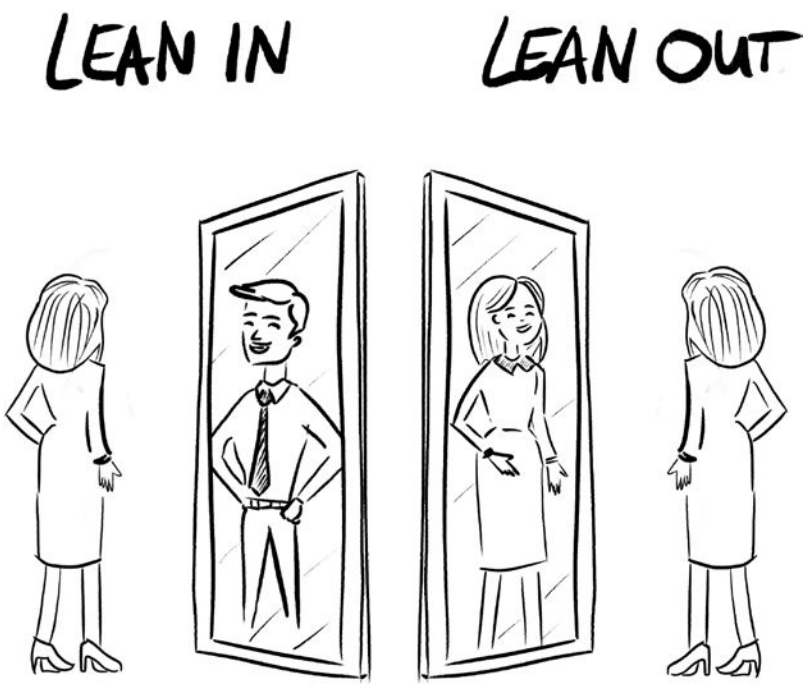
Next, we watched the infamous clip of U.S. president George W. Bush slipping behind German chancellor Angela Merkel as she sat at an even more impressive conference table than ours. Our instructor watched with horror as Bush warmly squeezed Merkel's shoulders.

"This was a male power play in action!" our teacher shouted. "Don't you *ever* let anyone do this to you!" We worked the room again, clapping each other on the backs as powerfully as we could, trying to create the ambiance of a male locker room. More giggling ensued.

As our training wound down, our new mentor imparted one final tip: "never order the smallest company car. Women tend to choose the smallest, most practical eco-friendly car. But status symbols matter a great deal to men, as they must now to you. The big car, the fancy watch, the expensive jewelry, the designer purse—these are all status symbols. They will earn you respect from your male colleagues. Go big. Or go home."

FAILING TO "FIX" THE WOMEN

Companies spend big bucks trying to get more women into upper management because numerous studies show that workplaces run by female executives are more productive, enjoyable, and profitable. In 2018, for example, CNBC



reported that "there's substantial evidence that gender diversity at the management level enhances a company's performance."[1]

Did sending female execs to empowerment training work for my firm? Did it retain us and increase the number of women being promoted? Nope.

More gender-diversity initiatives followed: female leadership training, mentoring networks, women's lunches—you name it. Nonetheless, every woman from my peer group, including me, left this company, taking with us our expensive training, along with our skills, talents, and insights. Not a single woman I knew is still working there. Frankly, we were frustrated by the exhausting travel, insane hours, extreme stress, and dearth of child care. Hefty bonuses and other perks weren't worth the cost of our health and sanity. Let me be clear: it's not that we couldn't cut it. We didn't *want* to cut it.

Last I checked, still only four women were on the thirty-member shareholders' council. The percentage of female senior leaders was stalled at 11 percent. Meanwhile, many men who were hired when I was have made partner.

The global pandemic worsened this situation. According to the Women in the Workplace 2021 study, coauthored by McKinsey and LeanIn.org, one in four women plans to leave the workplace or downshift their careers. Up to two million women could exit corporate America.[2]

A primary driver that women cite for leaving is the burden of unpaid care—shopping, cooking, cleaning, taking care of children and parents—that is disproportionately carried by women. Pre-pandemic, women took on nearly twice as much unpaid care as men. The crisis only increased this disparity, the Women in the Workplace 2021 report notes.[3]

TRYING TO "FIX" THE MEN

Companies also try to narrow the gender gap by putting their executives through "unconscious bias training." Unconscious bias training is supposed to arm employees with tools to recognize their biases and neutralize them. Almost all the big tech firms offer it, including Facebook, Salesforce, and VMware, with more joining every day. At Google, for example, 75 percent of 114,000 employees have taken unconscious bias workshops.

Evidence is strong that both male and female executives can be biased against women. These biases negatively affect hiring, payment, and promotion of female executives. It's both logical and ethical that companies take action against these biases. You don't need a neuroscientist, though, to tell you that nobody can be guilt-tripped into changing a prejudice.

In 2018, *Newsweek* published "How Diversity Training Infuriates Men and Fails Women,"[4] a fascinating dissection of unconscious bias training. Harvard organizational-sociology professor Frank Dobbin had combed through thousands of data points and concluded that unconscious bias training just made things worse, wrote reporter Joanne Lipman. "The training infuriated the men it was intended to educate," Lipman explained. "Their primary take-away was that they would have to 'walk on eggshells' around women and minorities."

According to *Workforce Management*, American companies spend roughly $8 billion per year on diversity training. Yet, Dobbin's study of 829 companies over thirty-one years showed that diversity training had "no positive effects in the average workplace."[5] An editorial in *The Economist* joked that the twelve most terrifying words in the English language are "I'm from human resources, and I'm here to organize a diversity workshop."[6]



Mental Break—In *Long Walk to Freedom*, Nelson Mandela recounts experiencing "a strange sensation" when he boarded an Ethiopian Airways flight and noticed that the pilot was black. Having never seen a black pilot before, Mandela felt overwhelmed by rising panic. The leader of South Africa's anti-apartheid movement found himself wondering, "How could a black man fly an airplane?"

Mandela wrote, "I had fallen into the apartheid mind-set, thinking Africans were inferior and that flying was a white man's job. I sat back in my seat and chided myself for such thoughts." Mandela vividly describes how even the most "woke" person can succumb to unconscious bias. His story also points to a solution—simply being exposed to greater diversity helps us overcome our biases.



IT'S ABOUT OUR BRAINS

Four powerful chemicals shape your personality: the neurotransmitters dopamine and serotonin, and the hormones estrogen and testosterone. Together, they form four distinct systems that stimulate specific areas of your brain. These are your dopamine, serotonin, estrogen, and testosterone brain systems.



Neurotransmitters are molecules the brain uses to transmit messages between nerve cells called neurons and from neurons to muscles.



You might have lots of activity in your serotonin system. I might have more neurons firing in my estrogen brain system. If I say your neurosignature is "high in dopamine," what I mean is that you score high on personality traits associated with the dopamine brain system. That's a mouthful! It's easier to simply say your brain is "high in dopamine," so that's what we'll do.

Let's take a deeper dive into the four brain systems. See if you recognize yourself.

Dopamine

People high in dopamine are curious, energetic, and future-oriented. Inventors and entrepreneurs tend to have this neurosignature. They get bored easily and are always looking for the next new exciting project.

Thrill-seeking British billionaire and Virgin Group founder Richard Branson fits the high-dopamine neurosignature. "As soon as something stops being fun, I think it's time to move on," Branson has famously said.[7] Never letting his dyslexia slow him down, Branson followed his own advice throughout his career—from starting a magazine at sixteen, to creating Virgin Records, founding Virgin Atlantic Airways, and zooming into space in 2021 on his Virgin Galactic space plane.

Serotonin

People high in serotonin are reliable, detail-oriented, cautious, and loyal. They thrive on routine and structure and enjoy consistency and stability.

Legendary investor Warren Buffett expressly avoids the dopamine rush provided by e-mail and Twitter. Instead, Buffett says, "I just sit in my office and read all day." His Berkshire Hathaway partner, Charlie Munger, notes, "Neither Warren nor I is smart enough to make decisions with no time to think. We make actual decisions rapidly, but that's because we've spent so much time preparing ourselves by quietly sitting and reading and thinking."[8]

Testosterone

People high in testosterone are tough-minded, direct, and enjoy wielding power. They tend to be analytical and use systems thinking, which involves

moving logically from one step to the next to solve a problem, based on a system's "rules." They enjoy tinkering with "systems" such as car engines or computers.

Apple founder Steve Jobs was a driven high-testosterone leader. His great strength was harnessing the intellect of gifted people, such as his friend Steve Wozniak, and keeping them focused. But Jobs was also famously demanding and could be a bully. Jobs's mantra was "focus and simplicity," and his obsessive focus on design at Apple had a purpose. "Design is a funny word," Jobs said. "Some people think design means how it looks. But, of course, if you dig deeper, it's really how it works."[9]

Estrogen

People high in estrogen are empathetic and good at building personal connections and community. Estrogen increases secretion of the "cuddle hormone" oxytocin, which enhances feelings of bonding and trust. This neurosignature excels at nonlinear "lateral thinking," which involves examining a problem from multiple angles until insights emerge. Lateral thinkers are also good at envisioning long-term implications of a decision.

Apple cofounder Steve Wozniak exhibits the traits of a high-estrogen lateral thinker. Wozniak noted in a 2020 interview with CNBC that, unlike Steve Jobs, he was "never hungry for fame, power, or money." [10] Imaginative and creative, Wozniak recalled that as a teenager, "I had a TV set and a typewriter, and that made me think a computer should be laid out like a typewriter with a video screen."[11] Perhaps Jobs and Wozniak were successful partners because they had such different, yet complementary, neurosignatures.



Lateral thinking involves solving a problem by examining multiple possibilities at once. Lateral thinkers prioritize intuition and insight and make connections that other types of thinkers may miss.



THE HIDDEN NEUROGAP

Scientist and best-selling author Helen Fisher has spent decades researching how these four brain systems drive personality. The Fisher Temperament Inventory (FTI) has been taken by more than sixteen million people in

forty-plus countries.[12] Helen's personality inventory, based on neuroscience and validated with functional MRI testing, is also used by Match.com. She's one of my mentors, and I've learned a great deal from her.

In 2015, Fisher cofounded NeuroColor, a consultancy that helps businesses and governments use neuroscience-backed tools to help their executives reach peak performance. I was thrilled when NeuroColor CEO and cofounder Dave Labno agreed to consolidate some anonymized data sets for me that might shed light on the role gender plays in our brains. What he found was fascinating.

According to this data, "tough-mindedness," a personality marker for an active testosterone system, is strongly indicated in 53 percent of men and 39 percent of women in the general population. But when top executives at Fortune 500 corporations are tested, tough-mindedness rises to around 73 percent in male executives and 65 percent in female executives.



Tough-mindedness is characterized by a no-nonsense, unsentimental point of view and a tendency to be strong-willed, persistent, and not easily swayed.



Results were similar for another high-testosterone brain trait: systems thinking. In the general population, NeuroColor found it strongly indicated in 40 percent of men and 23 percent of women. Among top executives, however, systems thinking was predominant in 61 percent of male executives and 57 percent of female executives. In addition, in the data sets NeuroColor shared exclusively with me, testing also uncovered a five percentage-point decline in empathy in male *and* female top-level executives when compared to the general population.



Systems thinking is a way of thinking and reasoning that tends to progress in a linear, analytical fashion. In order to pinpoint and correct a problem, it looks at how the parts of a system, such as a car engine, interact.



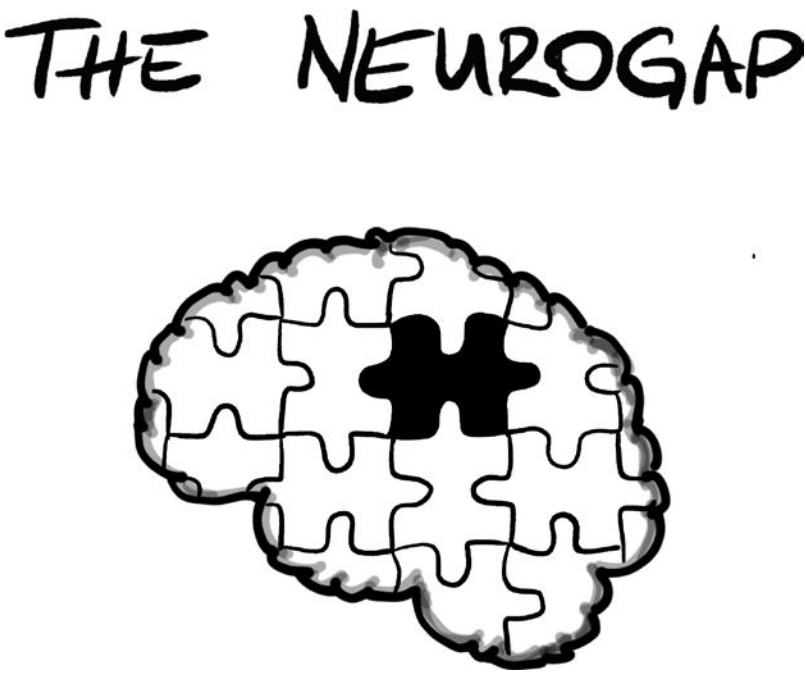
NeuroColor CEO Dave Labno and I discussed the fascinating results uncovered in these previously unpublished data sets. "Executives at the top tend to score higher on traits associated with the testosterone and dopamine systems than the average person—and that is true for both men and women," Labno noted.

This means that our executive suites are dominated by people with high-testosterone/dopamine neurosignatures—regardless of their gender. This hidden neurogap—I call it a "stress gap"—may be even wider than the gender gap that diversity efforts seek to address.

MAD MEN . . . AND WOMEN

Don't get me wrong. High-testosterone/dopamine leaders have loads of positive qualities. They are tough-minded, direct, and logical. They thrive on insane work hours, skull-cracking pressure, and blood in the water. They are charismatic, impatient risk-takers. I love working with them because they're exciting and fun. They never waste my time, and they get straight to the point.

But some testosterone-dominant executives can come off as rude, insulting, and short on impulse control. They can create extremely stressful workplaces and fail to understand why other neurosignatures aren't spurred by all the "excitement" to perform at their best. A high-testosterone executive genuinely



doesn't get it when people with different neurosignatures say they're exhausted. She just thinks they're lazy. In actuality, their productivity is being negatively affected by the work environment she's created.

Taken to an extreme, a leader souped up on dopamine and testosterone may reward employees who exhibit the "dark triad" of narcissism, Machiavellianism, and psychopathy—and punish those who react negatively to extreme stress. Think Don Draper in *Mad Men*. This creates a toxic work environment that turns off employees with other neurosignatures. They'll suffer in silence, or they'll quit. This vicious cycle will lead to a profound lack of neurosignature diversity at that company.

Imagine Steve Jobs without Stephan Wozniak. Would Apple ever have gotten out of the garage?



Brain Food—Sometimes we feel cranky at work because we're dehydrated. When you feel sluggish at work, drink some water. Hydration can boost brain performance by as much as 14 percent, according to a *Frontiers in Neuroscience* study.[13] Even mild levels of dehydration can have a negative impact on mood and cognitive performance.



THE "BAD" FEMALE BOSS

Some female executives who have successfully scaled the corporate ladder to the top have earned a surprising rap as abusive bosses. Once hailed as "SheEOs" who would usher feminism into the modern office, disgraced female bullies such as former Yahoo CEO Marissa Mayer have been outed as prettier packaging of the same old exploitative corporate culture. As pop culture blog *Jezebel* noted bluntly, "The Problem with Shitty Women Bosses Isn't That They're Women. It's That They're Assholes."[14]

Female executives with high-testosterone/dopamine neurosignatures often have a strong drive to succeed. Others may be promoted because they feel more familiar to the men at the top. Some are exciting, inspiring, hard-driving bosses. Others may come off as rude and insulting, create extreme stress for their employees, and exhibit low empathy and poor impulse control.

Let's also acknowledge, however, that according to NeuroColor's data, roughly one-third of women have high-testosterone brains, yet women don't come anywhere close to making up one-third of corporate leaders. Women

clearly still face tremendous bias in executive suites. In 2020, just one in five direct reports to a corporate CEO was a woman, and only one in thirty was a woman of color, according to Women in the Workplace. As of June 2021, only 8 percent of Fortune 500 CEOs were female.[15]

A meta review of sixty-three studies that the American Psychological Association collected and analyzed shows that when women act assertively and dominant, their behavior is viewed more negatively than when men exhibit the very same behavior. Women who assert their ideas, make direct requests, and advocate for themselves are liked less, the study concluded.[16] As Wharton organizational psychologist Adam Grant noted in his tweet about this study, "When will we stop punishing dominant women for violating outdated gender stereotypes?"[17]

The boss who sent me for "lean-in" training was female. Under her leadership, fourteen- to sixteen-hour workdays were the norm, and extreme stress was worshipped as proof of productivity. If you weren't sleep-deprived, you were underperforming. My average workday ran from 7 a.m. to 10 p.m. and sometimes lasted until midnight or later. I would often have to catch an early flight the next morning and run that entire day on two to three hours of sleep, without lunch or dinner breaks. I was exhausted and worried about my health, because I wasn't sleeping enough, working out, or eating right.

When I approached my boss to ask for an hour exercise break once a week, she testily informed me that my request was "unprofessional." I pressed her. She finally relented but told me I would have to sneak out so no one else would notice.

Was my boss simply conforming to the expectations of her superiors? Or was she driven by her own brain in her failure to recognize that by denying her employees basic needs such as sleep, healthy food, and exercise, she was destroying their productivity and job satisfaction? Regardless, highly educated, talented female employees were leaving this company instead of rising to the top. And they were taking the resources the company had poured into their training and development with them.



Mind Bender—A whopping 86 percent of millennial women in a 2017 REAL study said they had ditched cushy corporate jobs. Thirty-three percent had felt restricted and unhappy. Forty-three percent said they weren't following their passion. Ten percent said they weren't progressing fast enough and couldn't influence the company in a meaningful way.[18]



WHY THERE IS A NEUROGAP AT THE TOP

My lean-in training was designed to teach me to act like a powerful man. Now we can see that it was designed to teach me to behave like someone with a high-testosterone neurosignature. But what if you're a woman with a high-estrogen neurosignature? You may be able to fake high-testosterone traits such as tough-mindedness and linear thinking, but it won't be genuine, because you excel instead at empathy and lateral thinking.

Imagine if we sent male executives to "lean-out" training to teach them to shake hands more gently, smile encouragingly, and take ladylike steps. Flipping the script illuminates how insulting "empowerment" training is to smart, talented women—and why it fails to prevent them from ditching corporate life in droves.

Today, we understand how demoralizing it is to require a gay person to pretend to be straight. To have to pretend to be someone you're not in order to advance at your job sucks up cognitive resources. It can cause anxiety and depression.

I'd like to add that lots of men have high-estrogen neurosignatures and may also feel unable to perform at their best in certain corporate environments. NeuroColor data shared with me shows that roughly 28 percent of men in the general population and around 72 percent of women exhibit traits associated with the high-estrogen brain. The data reinforces that gender should never be used to stereotype anyone's personality or thinking styles. Your gender *affects* your neurosignature, but it does not *determine* your neurosignature.

This applies to both cisgender and transgender people, by the way. Please know that whenever I say "women," I am including transwomen; and when I say "men," that includes transmen. Nonbinary and gender-fluid individuals also have unique neurosignatures, just as the rest of us do.

Your race has little to no influence on your neurosignature. That's why, as a neuroscientist, I don't feel qualified to directly address racial diversity at work. I have noticed, however, that when companies apply my brain-friendly recommendations for the workplace, they naturally attract greater gender and racial diversity.

THE POWER OF "THOUGHT DIVERSITY"

You could solve your gender-diversity problem by promoting women with high-testosterone brains to the executive suite. They may perform just like the guys. But you haven't actually diversified how your team thinks and solves problems.

Helen Fisher suggests that different neurosignatures evolved in hunter-gatherer societies for a reason. "Imagine a group of hungry humans walking together in Africa, hundreds of thousands of years ago," she told me. "Suddenly, they come across some mushrooms. The impulsive high-dopamine people would jump right into eating the mushrooms and possibly be poisoned. You need cautious high-serotonin folks to say, 'Hold on; it's not in our tradition to eat these mushrooms,' and high-testosterone types to say, 'Let's do an experiment and feed a couple of these mushrooms to the dog' while the high-estrogen people suggest, 'Let's sit down and pool our knowledge about these mushrooms.'"

Humans evolved to think differently so we could put our heads together and come up with smart solutions to problems. Thought diversity makes for a more effective team. "Unfortunately," Helen explains, "when organizations think about diversity, they look at race, gender, or cultural background—but not diversity of mind. So, you may have women represented, and that's great—but if they all share the same temperament, the group isn't as diverse as you think."

A CHANCE TO REIMAGINE WORK

In 2020, millions of people began to work from home. Corporate offices were profoundly disrupted with a far greater impact than any ambitious human resource executive could ever dream of having. This is an unprecedented opportunity to kick-start a workplace revolution that has been needed for decades. A brain-friendly workplace that supports all neurosignatures provides an exciting new paradigm for this revolution.

In March 2021, an internal Goldman Sachs report leaked to the press provided a shocking peek into the company. First-year analysts reported working on average ninety hours per week and sleeping just five hours per night. One hundred percent reported that their personal relationships had deteriorated and that they faced unrealistic deadlines. Forty-two percent said they had experienced unjustified blame. Seventeen percent reported frequent shouting and swearing.[19]

Here are two quotes from the leaked document:[20]

> I didn't come into this job expecting a nine a.m. to five p.m. workday, but I also didn't expect consistent nine a.m. to five a.m. days, either.

> Being unemployed is less frightening to me than what my body might succumb to if I keep up this lifestyle.

You may be thinking, *what did they expect, working for an investment bank?* True, yet I would argue that the real loser here is the company. It is likely to

become workplace that only attracts people with a dopamine/testosterone neurosignature. As a result, the company steadily loses the talent and insights that a variety of neurosignatures can provide.



Brain Boost—Julie Linn Teigland, a managing partner at EY (formerly Ernst & Young), travels the globe on an extremely demanding schedule. I see her at many events, and she always seems energized and upbeat. She never looks tired. I asked for her secret. "Before I have to speak to an audience," Teigland told me, "I love to get out and walk around the block for a couple minutes. And don't laugh, but I have one of those little under-the-desk pedaling machines. It really helps me keep my energy up."



THE TIMES THEY ARE A-CHANGIN'

Corporations mistakenly place the highest value on executives who can jet around the globe on no sleep and liters of coffee. Companies think these are their "high performers." It's time to build awareness that all neurosignatures are equally valuable.

Women and men with high-estrogen or high-serotonin neurosignatures are strong in empathy and associative lateral thinking. They crave connection and build harmonious relationships. This can make them excellent, insightful, team-building leaders. But companies lose them when they are shamed for wanting reasonable hours, parental leave, child care, and a healthy work/life balance.

Women are expected to return to work a few short weeks after delivering a baby, for example, and never show signs of fatigue or longing to be with their infants. Men are expected to spend very little time with their families if they want to make it to the executive suite. None of this is normal.



Mind Bender—How did Americans use time saved from commuting during the 2020 shutdown? A Becker Friedman Institute paper reveals that Americans were commuting sixty million fewer hours per day and devoting two-thirds of that time to home improvement, chores, family time, and leisure.[21]



GIVE WOMEN WHAT THEY WANT— AND GET MORE DIVERSITY

In 2007, Google extended paid maternity leave from three to nearly five months. Attrition rates for female Google employees who had babies plunged by 50 percent. If only gender diversity training had such a track record.

Google's move set off a maternity arms race, with a growing number of tech firms offering gender-neutral paid parental leave to men and women, including Twitter (20 weeks), Etsy (26 weeks), Facebook (4 months), and Change .org (18 weeks). Netflix and Virgin Management increased paid parental leave to a year. The practice is spreading beyond the tech industry to other sectors as well.

My clients have discovered that brain-friendly practices such as extended parental leave naturally decrease female attrition while raising overall employee satisfaction and productivity. What's good for women, it turns out, is also good for companies, because it restores neurosignature diversity.

In the next chapters, we'll explore how to create a brain-friendly workplace that encourages all neurosignatures to develop into their happiest and most productive selves. This will naturally decrease female attrition while raising employee satisfaction and productivity.

For starters, let's do away with the worship of extreme stress and insanely long work hours in favor of practices that genuinely enhance productivity. Even your most revved-up, high-testosterone/dopamine execs will perform better—and face fewer lawsuits from throwing tantrums—after a good night's sleep and a healthy snack.

CHANGE THE WORKPLACE, NOT THE PEOPLE

Setting up a brain-friendly workplace that is naturally attractive to all neurosignatures has wide-ranging benefits. It's far easier to reform the workplace than it is to change people. Let people play to their strengths instead of wasting energy trying to change their personalities.

The Network for Executive Women reports 31 percent attrition for female executives.[22] It only gets worse as they climb the corporate ladder. By the time women reach the top, they leave their jobs *three times* more often than their male colleagues. Corporations that don't understand neurosignatures and fail to listen to what women want are losing massive pools of talent.

Perhaps we should view female brain drain as a leading indicator—the canary in the coal mine. Something isn't right, and we'd better fix it before it's too late.

A company will thrive when it hires and respects employees with different neurosignatures. They will bring wonderfully complementary strengths into the workplace. By raising awareness of neurosignature diversity's importance to a company's productivity and profitability, bias should diminish as well. Companies that encourage and support *all* neurosignatures become more productive, more profitable—and naturally, more diverse. In the next chapter, we'll dive into *your* neurosignature.

THE BRAIN-FRIENDLY INTERVIEW

Julie Linn Teigland, managing partner, EY Europe, Middle East, India, and Africa

Teigland is a widely beloved senior executive at global accounting powerhouse EY. She is managing partner of EY Europe, Middle East, India, and Africa (EMEIA), overseeing more than 121,000 people across ninety-seven countries. She is also global leader for EY Women Fast Forward and serves on boards in Europe and the United States. Born in the United States, Teigland has lived in Germany for thirty years and is married with four children.

Teigland is an inspiring executive who is a genius at motivating her team and exuding positive energy, despite her demanding career. I was eager to learn some of her secrets.

Friederike: Was there a pivotal challenging moment in your career that motivated you to want to create a "better working world" at Ernst & Young?

Julie: Initially in my career, with four young children, I was focused on surviving. Trying to be a good wife, a good mother, and good at your job is a lot. It took some time to reach enough stability in my career that I could think about how to create a better work environment. To be honest, it wasn't until my kids were around nine or ten that I could truly begin to balance things better in my own life. That's when I started to say, "OK, I've made it. How can I give back?"

Friederike: What is EY doing today to better support working mothers?

Julie: In June 2019, we announced EY's collaboration with SheWorks!, a cloud-based technology platform that provides women access to remote and flexible job opportunities. Leveraging the power of digital to attract more women to the global workforce is a key objective. I still remember the days when if you wanted to leave the office, you waited for the partner to go to the restroom so you could

sneak past his office to get to the exit. There are so many more mothers in our workforce today than there were when I started out. That's fantastic to see. It's a far more diverse workplace today.

Friederike: Millennial women in particular are demanding a workplace that is more sensitive to their needs as working mothers.

Julie: Yes, and we have not fully solved this problem. At EY, we offer a lot of flexibility, but we also demand a lot. Our focus now is to make sure our people can design their careers within our unique approach to work at EY. Our value proposition is that it's "yours to build." It does take strong women to be able to do that, though, and handle it all. I want to be honest about that.

Friederike: Do you have any hacks you use to cope with everything?

Julie: My secret hack is that I love long flights. They're my mini vacations. I feel like I can completely shut off, watch a chick flick, and thoroughly enjoy myself. I've also become a Peloton fan. I love to hop on and do twenty minutes in the morning to get my energy up, and then I'm ready to go.

Friederike: Exercise is so important to brain health and our moods. What do you do during a meeting when you sense that the energy is flagging?

Julie: In the Frankfurt office, we have a coffee bar. My entire leadership team knows that if I'm feeling a bit bored or frustrated in a session, I'll announce, "I'm going to go get coffee. Who wants a coffee?" People thought I was crazy, because I was always buying like twenty coffees. And I'm not a big coffee drinker.

But that allows me to leave the room, get in a little walk, and do something for others, which makes me feel good. When I return, it's usually with a positive change in my perspective that helps change the dynamic in the room.

If you don't like what you're hearing or seeing, you have to change perspective, and you have to get other people to change perspective, too. That can be as simple as getting them to look up, or drink a coffee. Anything to break them out of the rut. Actually, I shouldn't be sharing this because now everyone will know my coffee trick.

Friederike: People truly seem to appreciate you and your welcoming leadership style. What makes your leadership style work?

Julie: That is so nice of you to say. Two things drive my leadership style, I think. First, I know I'm incredibly privileged, and I seek to always remember to be grateful and to feel honored to have this position.

If you walk into work every day as if you're the king—or queen—people may look up to you and respect you. But they're not as appreciative of you if they don't sense that you are grateful to have your position. I do not come from a wealthy family, and I do not feel that I was given all this because I am the best. I truly feel grateful, and I think gratitude is a big portion of what drives happiness and

satisfaction with oneself. And then you can share those good feelings with other people.

Second, I endeavor to be straightforward. I try to be open, honest, and transparent. I do also try to be gentle with people, but I think people appreciate it when you get straight to the point. It shows you respect them.

I also try to be honest about my shortcomings and mistakes. You're not a true leader unless you can demonstrate vulnerability in some way, shape, or form. You have to be able to show people that you're human and that you see them as human. Then, empathy can flow both ways, creating much more positive interactions.

Friederike: It is so challenging to be a corporate leader and also have a healthy, happy family life. What key advice would you give a man or woman seeking to have both?

Julie: If I had it to do all over again, I would set better boundaries at work. Early in my career, I didn't know how to set boundaries. I took on too much, and then I blamed the company—I was at Arthur Andersen at the time. In actuality, it wasn't the firm forcing me to work eighty hours a week. I had to learn to set my boundaries around how many hours I was willing to work and the fact that I also had young children who needed me home.

Friederike: Do you think people fail to set those boundaries out of fear, mostly?

Julie: It wasn't fear that was driving me but, rather, an inaccurate perception that every minute, every second mattered. But looking back on my entire career span, do you think it would have mattered if I decided to work a bit less when my kids were really young? No, it wouldn't have mattered. The employer has an obligation, in my view, to respect your boundaries if they value you as a talent. That's where I think EY has gotten smarter. I encourage my employees to make honest choices and to leverage the flexibility we can offer when they need it.

Friederike: Is there a shift in culture driving this change at EY?

Julie: Yes, especially post-pandemic, we see a shift away from presenteeism toward an outcome-based paradigm where it doesn't matter how much or how little time you spend as long as you get the job done. How well you do the job is much more important than the hours that you spend at work. If we can get comfortable with flexibility and diversity, we will achieve even better outcomes.

It's the difference between trying to control the processes versus trusting employees and letting them figure out how to get it done and giving them guardrails and guidance. It's a different type of leadership. At EY, we use an apprenticeship model. "You learn by watching those in front of you," whether you're following a partner or a senior manager. I don't think we have this approach all figured out yet, but I definitely like the direction we are headed.