

INTRODUCTION

If we do not transform our pain, we will most assuredly transmit it – usually to those closest to us: our family, our neighbors, our co-workers, and, invariably, the most vulnerable, our children.
—Father Richard Rohr¹

Lawyers are inevitably leaders in all positions they hold due to their privilege, power, prestige, and responsibility.
—Randall Kiser²

What if you could feel better, be better, and do better? What if the law students or lawyers under your care and supervision could feel, be, and do better?

The legal profession worldwide is suffering from a failure of individual lawyers to thrive. The lawyer well-being crisis is impairing our performance. We must examine our culture, and we can learn from neuroscience and psychology research to address this problem.

Neuro-intelligence is a critical competency in the legal profession because lawyering is a cognitive profession and leading is a cognitive skill.³ Neuro-intelligence development is centered on an understanding of neuroplasticity – the brain’s superpower to constantly rewire with every action, experience, and thought; and neurogenesis – our brain’s ability to grow new cells. Our brain is shaped by our daily habits and is influenced by our efforts, successes, stressors, failures, and traumas. Lawyers must process information quickly and accurately, solve complex problems, and demonstrate resilience. A high-functioning brain is essential for lawyers.

I have spent my entire professional life thinking about how to improve learning. I began as a middle school teacher. After law school, I worked at a company training lawyers to do online research.

My undergraduate degree and my PhD are in education, and I have been teaching at the University of Denver Sturm College of Law since 1998, driven by my motive to teach better and help students learn more effectively.

My interest in neuroscience was triggered when the instructor in an anger management class said, “When we get angry, we lose 30 IQ points.” I was in that class with my then seventeen-year-old son, and I was taking copious notes. I wanted to help him learn to better regulate his emotions. But when the therapist made that statement, I immediately thought of my work with stressed-out law students. They were often so stressed, they got angry. What if that meant they could not learn as well as when they were not stressed and angry? I contacted the academic researcher responsible for that therapist’s statement, and he said it was “mostly a metaphor for what’s going on in the brain.” I *had* to know what was going on in the brain during stress and anger.

Neuroscience research indicates that the aggregate effects of training to become a lawyer, or of practicing law, under chronically stressful conditions may weaken memory and thinking capacity. Stress might also set the stage for abnormally high rates of anxiety, depression, substance misuse, and suicide risk among law students and lawyers. Exposure to chronic stress can damage brain cells. I learned that *chronically stressful environments can cause brain damage*. And this phenomenon may be the catalyst for the lawyer well-being crisis.

It is startling to hear that there is a lawyer well-being crisis. It is excruciating to think you might be impaired or languishing, and the culture of legal education and law practice may be the root cause. While you are trying to contribute to society, find meaning in your work, develop professionally, and provide for your family, your well-being can get lost in the shuffle.

Lawyers are expected to project strength and competence. If a lawyer is suffering from stress, anxiety, or depression, or if they self-medicate with substances like alcohol, study drugs, or comfort food, they are part of the lawyer well-being crisis. If they are apathetic or burned out, they may be languishing and at risk of becoming impaired. If you know colleagues who are suffering in this way, they are part of the lawyer well-being crisis.

Introduction

3

During my early years of research on the impact of stress on cognition, I learned that my first lawyer mentor had died by suicide when he was forty-eight years old. He wrote poetry and played the piano. He was a leader in the local legal community, handled pro bono cases, and spearheaded the program at his church that provided meals for the hungry. He was a workaholic. He remains in my thoughts as I argue that law students, lawyers, and leaders of legal organizations must invest in lawyer well-being to address this crisis.

What happened to my mentor is not common. Most law students and lawyers are likely suffering from languishing – a state of stagnation, emptiness, or despondency. Languishing is not mental illness, but a state of incomplete mental health. When a person is languishing, there are gaps in their emotional, psychological, or social well-being.

What does languishing look like? How can law school or legal practice cause languishing, which threatens to become a slippery slope to illness?

A second-year law student told me that he did not remember anything from his 1L year. He was a former US marine, machine gunner, and squad leader with service experience in the Middle East. He suffered from memory problems during law school.

A lawyer was fired from his job when he called his boss from the emergency room in the midst of a panic attack. He was an accomplished litigator with scores of criminal and civil trials under his belt. He changed professions.

Untreated languishing can devolve into impairment. The reflection below from a languishing law student who is approaching impairment, lightly edited for privacy and length, provides a rich description of the impact of a chronically stressful culture:

I, unfortunately, did not really get to relax over this break. My weekend job involves shifts that are often late at night. Additionally, I worked on a directed research I was doing for a professor and I started work at a nonprofit that I will be working at while working full time at a law firm this semester. I know what it sounds like – burnout central. But, these are things I need to do to be able to pay for rent and be able to graduate in May, so I do what I have to.

Here is where my reflection starts – there is so much shame from others when you try to protect your own wellbeing and focus on yourself. I took these last few days off from work in order to rest before I start my work at the law firm and I was told by a friend (in a judgmental way), “wow I wish I could take a few days off.” Further, my little brother knows of an opportunity where your proceeds go toward paying off student loans. He insists that I work there. I have told him repeatedly that I am so exhausted and that along with working full time, I also will be doing an externship class, working for the nonprofit and continuing my weekend job. I told him I was too overwhelmed to add anything more to my plate, to which he responded, “I am trying to push you to be better and do more, because you can.”

I felt like I have been coming to this breaking point where I am so tired and exhausted, yet no one thinks I am doing enough – like I am enough. It’s invalidating and belittling and, really, just makes me feel like I am going insane.

These feelings had me relaying back to our class and what we spoke about – making time to care for ourselves so that we may be healthier, more competent, happier individuals. I remember feeling so excited by the fact that I became more focused on taking care of myself that I did not realize, in reality, there is so much shame in focusing on yourself and putting up boundaries. Focusing on your own well-being comes with many more challenges than I originally even imagined.

If you are a lawyer, a law student, or contemplating law school, you are a person with cognitive chops. You love learning and thinking. But what are you doing to care for your brain, your most important asset?

Hans Selye was a clumsy researcher who worked with rats in a lab. He routinely dropped his rats, followed by a chase and recapture exercise. Selye noticed that being mistreated made his rats sick. An extended exposure to the general unpleasantness of being Selye’s lab rats made them ill in ways that the lab rats of other more careful researchers were not. The *culture* in Selye’s lab was making his rats sick.⁴

Stress is a ubiquitous feature of legal education and law practice, and the stressors endured by law students and lawyers can result in a significant deterioration in their well-being, including languishing,

Introduction

5

anxiety, panic attacks, depression, substance misuse, and increased suicide risk.⁵ Stress in the profession is making law students and lawyers sick.

Stress harms the body, and especially the brain. Chronic stress, the unceasing kind, arises from a *culture* of overwork, competitiveness, invulnerability, perfectionism, pessimism, isolation, and burnout. And *chronically stressful environments can cause brain damage*.

Legal practice is a cognitive profession, and the legendary stressors in our environment can take a tremendous toll on our cognitive capacity. Stress can weaken and kill brain cells. Research reveals that cognitive performance is diminished during the fight-or-flight response, including impaired concentration, memory, problem-solving, curiosity, motivation, creativity, and math and language processing.⁶ This may be due to an overexposure to stress hormones in the hippocampus, the brain structure that processes memory and facilitates emotion.

Professionals relying heavily on optimal cognitive function need to cultivate a healthy hippocampus. Brain scans show hippocampi shrinkage in people experiencing stress, low self-esteem, repeated jet lag, major depression, and posttraumatic stress disorder (PTSD).⁷ The hippocampus is extremely vulnerable to damage from stress hormones, and chronically high levels of stress hormones cause degeneration and death of brain cells.⁸ *This signifies brain damage*.

The Legal Brain is the culmination of over a decade of research into stress, cognition, and how to optimize brain health and mental strength. Lawyers believe they should be indestructible and unstoppable, but many are overworked, unhappy, and unhealthy.

The risk that a profession can cause brain damage is pretty bad news. But there is good news. *Neuroplasticity proves that every lawyer's brain is a work in progress, and it is never too late to take better care of your cognitive fitness*.

This book translates scientific research into actionable information. It is designed to help law students, lawyers, and leaders of legal organizations understand how to:

- avoid or heal cognitive damage;
- optimize cognitive performance; and

- build, maintain, and protect the most valuable tool in their briefcase – the lawyer’s brain.

The rest of the good news is that every beneficial practice you initiate, and every bad habit you curtail, will safeguard your brain as you age, reducing the risk of dementia and Alzheimer’s disease.

To adequately care for your brain, you need to develop your neuro-intelligence. *The Legal Brain* is your neuro-intelligence manual:

- Chapter 1, “The Impaired Lawyer,” describes the global lawyer well-being crisis and establishes that mental and physical health impairments can weaken performance and diminish well-being. It shows that lawyers struggle with anxiety, depression, burnout, substance misuse, and suicide risk at rates that are higher than the rest of the population.
- Chapter 2, “The Spectrum from Languishing to Flourishing,” outlines the continuum of mental health.
- Chapter 3, “The Lawyering Culture,” summarizes the key features of law school and legal practice cultures that undermine lawyer well-being.
- Chapter 4, “The Lawyer’s Brain,” introduces the triune brain structure and describes important parts of the emotional and thinking brains. These areas of the brain work together to facilitate learning, memory, developing expertise, and habit formation.
- Chapter 5, “Memory, Knowledge, and Building Expertise,” examines how memory is formed and expertise is established by explaining how the lawyer’s brain learns, remembers, and recalls information.
- Chapter 6, “Motivation, Reward, and Developing Habits,” differentiates intentional learning from automated habit formation. It illuminates how the brain’s motivation and reward system entrenches our habits, both good and bad.
- Chapter 7, “The Impact of Stress,” reveals the damaging influences of stress and trauma and how they weaken our brain’s health and function.
- Chapter 8, “The Influence of Self-Medication,” demonstrates how various substances of abuse can impair cognition.
- Chapter 9, “The Importance of Fuel,” explores how diet can improve or impede brain health.

Introduction

7

- Chapter 10, “Optimizing Brain Health,” provides research-based recommendations for maintaining a healthy brain.
- Chapter 11, “Enhancing Mental Strength,” offers a series of practices that augment mental strength.
- Chapter 12, “Developing an Action Plan for the Neuro-intelligent Lawyer,” delivers the tools to formulate a customized action plan for improving brain health and mental strength.
- Chapter 13, “The Neuro-intelligent Legal Organization,” summarizes research-based well-being recommendations, examines burnout, describes leveraging energy styles and neurosignatures, and explains what legal organizations can do to support lawyer and law student well-being.
- Finally, the Conclusion challenges lawyers to consider their positions as leaders in society, the impact of developing neuro-intelligence, and the broader implications for their profession, their loved ones, and their work in the law, public policy, and business.

Each chapter has a “Summary” section followed by a section on “The Science.” Lawyers will be able to learn the basics by reading “The Summary,” and those who want a richer explanation can explore the research in “The Science” section.

The information provided in *The Legal Brain* is applicable to both law students and lawyers, but for the sake of simplicity moving forward, I will refer to lawyers and the lawyer’s brain.

First, Chapter 1 asks how did the legal profession get here? Lawyers make important contributions to society, but do we do so while impaired? Data from research on lawyer well-being indicates the answer may be “yes.”

NOTES

- 1 Richard Rohr, “Suffering: Week 1 Summary,” October 14–19, 2018, <https://cac.org/suffering-week-1-summary-2018-10-20>.
- 2 Randall Kiser, *SOFT SKILLS FOR THE EFFECTIVE LAWYER* (Cambridge University Press, 2017), 226.
- 3 Debra S. Austin, “Drink Like a Lawyer: The Neuroscience of Substance Use and Its Impact on Cognitive Wellness,” 15 *Neu Law J* (2015), 826, at 829.

- 4 Robert M. Sapolsky, *WHY ZEBRAS DON'T GET ULCERS* (Holt, 2004), 7–12.
- 5 Lawrence S. Krieger, “Institutional Denial about the Dark Side of Law School, and Fresh Empirical Guidance for Constructively Breaking the Silence,” 52 *J Leg Educ* (2002), 112; Nancy Levit and Douglas O. Linder, *THE HAPPY LAWYER: MAKING A GOOD LIFE IN THE LAW* (Oxford University Press, 2010), 6–8.
- 6 Rick Hanson, *BUDDHA’S BRAIN: THE PRACTICAL NEUROSCIENCE OF HAPPINESS, LOVE, & WISDOM* (Brilliance, 2009), 52–60; John Medina, *BRAIN RULES: 12 PRINCIPLES FOR SURVIVING AND THRIVING AT WORK, HOME, AND SCHOOL* (Pear Press, 2008), 178; David Perlmutter and Alberto Villoldo, *POWER UP YOUR BRAIN: THE NEUROSCIENCE OF ENLIGHTENMENT* (Hay House, 2011), 61; John J. Ratey, *SPARK: THE REVOLUTIONARY NEW SCIENCE OF EXERCISE AND THE BRAIN* (Little, Brown Spark, 2008), 67–71.
- 7 Talitha Best and Louise Dye, “Good News Story: Nutrition for Brain Health,” in *NUTRITION FOR BRAIN HEALTH AND COGNITIVE PERFORMANCE* (CRC Press, 2015), 4; Sapolsky, *supra* note 4, at 221.
- 8 Larry R. Squire et al. (eds.), *FUNDAMENTAL NEUROSCIENCE* (4th ed., Academic Press, 2012), 804; Eric R. Kandel et al. (eds.), *PRINCIPLES OF NEURAL SCIENCE* (5th ed., McGraw Hill, 2013), 1320.

1 THE IMPAIRED LAWYER

To be truly free, we must choose beyond simply surviving adversity, we must dare to create lives of sustained optimal well-being and joy. In that world, the making and drinking of lemonade will be a fresh and zestful delight, a real life mixture of the bitter and the sweet, and not a measure of our capacity to endure pain, but rather a celebration of our moving beyond pain.
—bell hooks¹

In Linkin Park's aching anthem "One More Light," the chorus mourns, "[W]ho cares if one more light goes out."² Lead singer Chester Bennington took his own life on July 20, 2017, a day that should have been the fifty-third birthday of his friend and fellow musician Chris Cornell, who had committed suicide on May 18, 2017. Both musicians were creating new music and performing on tours delighting their fans, yet both had a history of depression and addiction.³ In popular culture, we tend to think that anxiety, depression, and substance abuse are afflictions of creative artists who pour out their histories and hardships on canvas and stage. Failure to thrive is not limited to artists, and there are many ways to extinguish a person's light.

THE SUMMARY

The extreme socialization process of becoming a lawyer may snuff out the ideals, goals, and values of enthusiastic new law students. The intense workload, the expectation of 24/7 connectivity, and the lack of work-life balance in legal practice might suffocate the lawyer trying mightily to help clients achieve their goals. These characteristics of the

law school and legal practice cultures can have devastating consequences for the well-being of law students and lawyers.

The pressure during law school can devolve well-adjusted students into anxious and depressed zombies, and it happens as early as the first semester.⁴ Compared to other graduate student populations, they are less fulfilled and they handle the culture of intense competition by binge-drinking more often and using more marijuana than other graduate students. Fatigue, apprehension of failure, and increased anxiety and depression can result.

The culture of legal practice is not an improvement due to the steep billable hour requirements and responsibility for client outcomes. Lawyers suffer from anxiety and depression at higher rates than the general population, and they are at the greatest risk of suicide among professionals, behind only those in the medical field. Alcohol misuse is a significant problem, with one study finding that 20% of lawyers are problem drinkers and another revealing that 46% of male and 60% of female attorneys abuse alcohol. Lawyers in the first ten years of their career have the most problematic drinking habits.

The lawyering culture, featuring extreme stress, intense competition, and overwork, can drive lawyers to succumb to mental and physical health problems. Neuroscience and psychology research explains how the damage happens and provides recommendations to help lawyers recover their well-being and cognitive capacity.

THE SCIENCE

AMERICAN LAW STUDENTS AND LAWYERS

Students enter law school with the dream of contributing to social justice enterprises, reform endeavors, entrepreneurial ventures, and legislative and administrative law efforts. They become leaders in the legal system, politics, governance, business, finance, nonprofit management, news media, entertainment, and philanthropy. But many cannot escape the personal damage that is done by legal education and law practice cultures.