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## Windmills of Your Mind: Understanding the Neurobiology of Emotion

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## Windmills of Your Mind: Understanding the Neurobiology of Emotion

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## WINDMILLS OF YOUR MIND: UNDERSTANDING THE NEUROBIOLOGY OF EMOTION

*Debra Austin\**

*Intelligence has been parsed into categories including general intelligence, which describes cognitive capacity, and emotional intelligence, describing social competency. Perhaps the most important new form of intelligence that lawyers can cultivate is neuro-intelligence, which is an understanding of the most important tool a lawyer must deploy—the brain. Emotional intelligence can help us understand how emotions that arise in the brain are often experienced in the windmills of the mind as “words that jangle in your head.”*

*This Article describes the importance of developing mental strength and challenges lawyers to enhance their understanding of the role emotion plays in their relationships with colleagues, clients, employees, and constituents. Part II, Brain Literacy, describes key components of the emotional and thinking brains. The process of memory formation is illustrated in Part III, Learning and Memory. Part IV, Stress and Cognition, outlines the harmful impacts of stress on brain health and mental performance. The brain’s automated response to emotional stimuli is detailed in Part V, Emotion. Recent research results are reviewed in Part VI, Law Students and Lawyers are at Risk for Impaired Well-being. Part VII, Emotion Regulation, explores methods for responding to emotion and the difference between survival and attachment emotions. Part VIII, Emotion and Decision-Making, depicts the process that helps us determine what outfit to wear, what rewards we are strong enough to defer to meet our long-term goals, and how public policy is shaped by emotion. Finally, Part IX, Interventions to Strengthen the Mind, links mental strength to happiness, explains three obstacles to developing mental strength that are commonly*

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\* J.D., Ph.D., Professor of the Practice, University of Denver Sturm College of Law. Many thanks to fellow traveler and music lover Professor Deborah L. Borman, University of Arkansas Little Rock Bowen School of Law, for her many years of friendship, mentoring, and support. This Article is dedicated to her because everyone needs someone they can count on, day or night, and in joy or despair.

*experienced by law students and lawyers, and provides ten practices that can promote mental strength.*

*This Article proposes that law students, legal educators, and lawyers will benefit from developing their emotional intelligence, as well as their understanding of the impact of emotion and stress on performance, and how building mental strength can empower their professional and personal lives. With greater emotional intelligence, individuals can improve well-being and performance, and organizations can leverage healthy human beings to enhance capacity and innovation.*

#### TABLE OF CONTENTS

I.	INTRODUCTION.....	933
II.	BRAIN LITERACY .....	934
III.	LEARNING AND MEMORY .....	937
IV.	STRESS AND COGNITION .....	939
V.	EMOTION .....	943
VI.	LAW STUDENTS AND LAWYERS ARE AT RISK FOR IMPAIRED WELL-BEING .....	947
VII.	EMOTION REGULATION .....	952
VIII.	EMOTION AND DECISION-MAKING .....	955
IX.	INTERVENTIONS TO STRENGTHEN THE MIND .....	959
	A. <i>Obstacles to Developing Mental Strength</i> .....	962
	1. <i>Social Comparisons</i> .....	962
	2. <i>Perfectionism</i> .....	963
	3. <i>Imposter Syndrome</i> .....	964
	B. <i>Practices that Promote Mental Strength</i> .....	965
	1. <i>Mindset and Motivation</i> .....	965
	2. <i>Mindfulness</i> .....	966
	3. <i>Meditation</i> .....	967
	4. <i>Loving-Kindness Contemplation</i> .....	968
	5. <i>Optimism</i> .....	968
	6. <i>Gratitude</i> .....	969
	7. <i>Signature Strengths</i> .....	969
	8. <i>Streamlining</i> .....	970
	9. <i>Investing in Experiences</i> .....	971
	10. <i>Visualization</i> .....	971
X.	CONCLUSION .....	972

## I. INTRODUCTION

*“Everything important about us seems to boil down to our brains.”<sup>1</sup>*

“Emotions arise in the brain,”<sup>2</sup> but can be experienced in the windmills of the mind as “words that jangle in your head.”<sup>3</sup> A number of facets of intelligence have been designated, including general intelligence (“IQ”), comprised of cognitive capacity, and emotional intelligence (“EQ”), describing social competency.<sup>4</sup> Body intelligence (“BQ”) incorporates awareness of physical condition, knowledge of wellness practices, and strategy for maintaining well-being.<sup>5</sup> Perhaps the most important new form of intelligence that lawyers should cultivate is neuro-intelligence (“NQ”), which is an understanding of the most important tool a lawyer must deploy—the brain.<sup>6</sup> A lawyer with NQ appreciates the fitness of her brain, develops brain literacy, and engages in practices that empower her brain.<sup>7</sup>

This Article strives to improve the well-being and mental strength of law students and lawyers, and to challenge lawyer leaders to develop an enhanced understanding of the role emotion plays for colleagues, clients, employees, and constituents.

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1. ALAN JASANOFF, *THE BIOLOGICAL MIND: HOW BRAIN, BODY, AND ENVIRONMENT COLLABORATE TO MAKE US WHO WE ARE* 3 (2018).

2. RALPH ADOLPHS & DAVID J. ANDERSON, *THE NEUROSCIENCE OF EMOTION: A NEW SYNTHESIS* 103 (2018).

3. MICHEL LEGRAND, *The Windmills of Your Mind*, on *THE WINDMILLS OF YOUR MIND* (United Artist Records 1968). French musician Michel Legrand composed the piece, Alan and Marilyn Bergman wrote the English lyrics, and Eddy Marnay wrote the French lyrics. *The 41st Academy Awards*, OSCARS, <https://www.oscars.org/oscars/ceremonies/1969> (last visited Oct. 18, 2019). The song won the 1969 Academy Award for Best Original Song for the movie *The Thomas Crown Affair*. *Id.* For the lyrics and a video of the original movie recording artist, British singer Noel Harrison, see *THE WINDMILLS OF YOUR MIND*, <http://www.thewindmillsofyourmind.com/thewindmillsofyourmind> (last visited Oct. 18, 2019), and for a more contemporary recording, see PARADOX Studio, *Sting - Windmills of Your Mind HD (my edition)*, YOUTUBE (Sept. 14, 2013), <https://www.youtube.com/watch?v=RSaugshzywA> for the 1999 remake of the famous art theft movie.

4. Nathan Brody, *Intelligence and Public Policy*, 2 PSYCHOL. PUB. POL’Y & L. 473, 473 (1996). See DANIEL GOLEMAN, *EMOTIONAL INTELLIGENCE* (1995); DANIEL GOLEMAN, *SOCIAL INTELLIGENCE: THE NEW SCIENCE OF HUMAN RELATIONSHIPS* (2006) (exploring emotional and social intelligence).

5. Jim Gavin & Margaret Moore, *Body Intelligence: A Guide to Self-Attunement*, IDEA HEALTH & FITNESS ASS’N (Oct. 19, 2010), <http://www.ideafit.com/fitness-library/body-intelligence-a-guide-to>.

6. Debra Austin, *Drink Like a Lawyer: The Neuroscience of Substance Use and its Impact on Cognitive Wellness*, 15 NEV. L.J. 826, 829 (2015).

7. *Id.*

## II. BRAIN LITERACY

*“Synaptic connections hold the self together in most of us most of the time.”*<sup>8</sup>

The adult brain is the size of a cauliflower and weighs about three pounds.<sup>9</sup> After the age of twenty, aging causes the brain to begin shrinking slightly each year.<sup>10</sup> Healthy habits, such as exercise, can increase brain volume, but detrimental behaviors, such as heavy alcohol consumption, can shrink brain volume.<sup>11</sup> Brain scans have shown that exposure to stress, depression, and post-traumatic stress disorder (“PTSD”) can reduce the size of the hippocampus, a structure in the emotional brain that is critical to memory formation.<sup>12</sup>

The human brain evolved upward from the top of the spine into three functional areas: the primitive, emotional, and thinking brains.<sup>13</sup> Our brain structure can be better understood if we gaze at our open palm and imagine the arm as the spine and the hand as the brain.<sup>14</sup> The primitive brain, located where the wrist meets the hand, is responsible for automated functions such as heartbeat, breathing, and digestion.<sup>15</sup> Fold the thumb across the palm, forming the number four with your hand, to visualize the location of the emotional brain.<sup>16</sup> The emotional brain resides above the primitive brain, but deep within the skull, surrounded by the thinking brain, as the fingers cover the thumb when you make a fist.<sup>17</sup>

The emotional brain, sometimes called the limbic system, contains structures that are important to emotion, learning, and memory formation, including the amygdala and hippocampus, and structures that are important to motivation and reward, including the ventral tegmental area and the nucleus accumbens.<sup>18</sup> The amygdala is especially important to the emotion fear because it ignites the fight-

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8. JOSEPH LEDOUX, SYNAPTIC SELF: HOW OUR BRAINS BECOME WHO WE ARE 323 (2002).

9. RITA CARTER, THE HUMAN BRAIN BOOK: AN ILLUSTRATED GUIDE TO ITS STRUCTURE, FUNCTION, AND DISORDERS 44 (3d ed. 2019).

10. *Id.*

11. *Id.*

12. JOHN MEDINA, BRAIN RULES: 12 PRINCIPLES FOR SURVIVING AND THRIVING AT WORK, HOME, AND SCHOOL 67 (2d ed. 2014); ROBERT M. SAPOLSKY, WHY ZEBRAS DON'T GET ULCERS: AN UPDATED GUIDE TO STRESS, STRESS-RELATED DISEASES, AND COPING 221 (2004).

13. JUDITH HORSTMAN, THE SCIENTIFIC AMERICAN DAY IN THE LIFE OF YOUR BRAIN 4–6 (2009).

14. HEIDI HANNA, THE SHARP SOLUTION: A BRAIN-BASED APPROACH FOR OPTIMAL PERFORMANCE 26 (2013).

15. BARRY GIBB, THE ROUGH GUIDE TO THE BRAIN 37 (2007); HANNA, *supra* note 14, at 26.

16. HANNA, *supra* note 14, at 26.

17. *Id.* at 27.

18. MARIE T. BANICH & REBECCA J. COMPTON, COGNITIVE NEUROSCIENCE 12, 23 (4th ed. 2018); HORSTMAN, *supra* note 13, at 4–5.

or-flight stress response.<sup>19</sup> The emotional brain, like the thinking brain above it, is part of the two hemispheres, split along a line that runs in the same direction as your nose protrudes from your face with the amygdala and hippocampus arranged in pairs, one per hemisphere.<sup>20</sup> The almond-shaped amygdala sits at the end of the memory-processing, horn-shaped hippocampus, creating a close relationship between memory and emotion.<sup>21</sup>

The thinking brain surrounds the emotional brain, like the fingers envelop the thumb when they are folded into a fist.<sup>22</sup> Also known as the cerebral cortex, the thinking brain is the wrinkly walnut-looking part of the brain that empowers attention, thought, executive function, and reasoning.<sup>23</sup> The thinking brain is divided into four lobes: frontal (speech, planning, reasoning, and evaluation); temporal (hearing and the processing of speech and music); parietal (touch, movement, taste, and temperature); and occipital (vision).<sup>24</sup> If the bumpy, creased, and folded thinking brain was stretched out flat, it would be the size of a square picnic blanket.<sup>25</sup>

Neurons are the brain cells that move information around the brain and from the brain to the body.<sup>26</sup> Neurons are shaped like trees with information receiving dendrite branches and long axon trunks.<sup>27</sup> While traveling through the neuron, information is in the form of an electrical impulse, but in order to communicate between neurons, a chemical neurotransmitter is needed to bridge the gap between neurons, known as the synapse.<sup>28</sup> Neurotransmitters are released from the presynaptic neuron where they travel to the receptors on the postsynaptic neuron, and the chemical information becomes electrical again once the chemical has docked in the receptor of the second neuron.<sup>29</sup> There are approximately 100 billion neurons that form networks of nearly unlimited data pathways in the brain.<sup>30</sup>

There are over one hundred neurotransmitters; those that excite the target neuron are agonists, and those that inhibit the target neuron are antagonists.<sup>31</sup> Some of the most well-known neurotransmitters are glutamate, GABA, acetylcholine, endorphins,

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19. HORSTMAN, *supra* note 13, at 4.

20. *Id.*

21. GIBB, *supra* note 15, at 39.

22. HANNA, *supra* note 14, at 27.

23. BANICH & COMPTON, *supra* note 18, at 12; HORSTMAN, *supra* note 13, at 5–6.

24. BANICH & COMPTON, *supra* note 18, at 14, 27, 40; GIBB, *supra* note 15, at 40; HORSTMAN, *supra* note 13, at 6.

25. GIBB, *supra* note 15, at 39–40; HORSTMAN, *supra* note 13, at 3.

26. BANICH & COMPTON, *supra* note 18, at 4.

27. *Id.*; GIBB, *supra* note 15, at 3–4.

28. GIBB, *supra* note 15, at 34–36; HORSTMAN, *supra* note 13, at 6.

29. BANICH & COMPTON, *supra* note 18, at 15.

30. GIBB, *supra* note 15, at 33; HORSTMAN, *supra* note 13, at 3.

31. BANICH & COMPTON, *supra* note 18, at 19; HORSTMAN, *supra* note 13, at 6.

epinephrine, dopamine, serotonin, and oxytocin.<sup>32</sup> The two main signaling neurotransmitters are glutamate, which has an excitatory impact, and GABA (gamma-aminobutyric acid), which has an inhibitory effect.<sup>33</sup> Acetylcholine activates attention and wakefulness.<sup>34</sup> Endorphins relieve pain and enhance pleasure. Epinephrine, also known as adrenaline, is released during the stress response.<sup>35</sup> Dopamine is critical to the motivation and reward system, as well as to addiction.<sup>36</sup> Serotonin is involved in mood and emotion, and oxytocin is the bonding neurotransmitter.<sup>37</sup>

The brain possesses two superpowers that can be enhanced with healthy habits: neuroplasticity, which is the brain's capacity to rewire itself and evolve with every thought, action, and experience; and neurogenesis, which is the ability of the emotional brain's hippocampus to grow new brain cells.<sup>38</sup> The two most important habits a lawyer can undertake to empower brain function are getting adequate sleep and aerobic exercise.<sup>39</sup> Sleep is important to memory processing and the removal of neurotoxins that put the lawyer's brain at risk of Alzheimer's disease.<sup>40</sup> Aerobic exercise, or anything that raises the heart rate, can protect against cognitive impairment caused by stress, prevent cognitive decline, and heal cognitive damage.<sup>41</sup>

The emotional and thinking brains collaborate during learning, memory formation, the establishing of habits, and in moderating the stress response. To increase NQ, it is important to learn about these critical brain processes.

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32. BANICH & COMPTON, *supra* note 18, at 19; HORSTMAN, *supra* note 13, at 6–8.

33. BANICH & COMPTON, *supra* note 18, at 19; HORSTMAN, *supra* note 13, at 8.

34. HORSTMAN, *supra* note 13, at 6.

35. *Id.* at 8.

36. *Id.*

37. *Id.* at 6, 8.

38. CARTER, *supra* note 9, at 38, 212; MEDINA, *supra* note 12, at 86–87.

39. CARTER, *supra* note 9, at 44, 51–52, 154, 188; TARA SWART ET AL., NEUROSCIENCE FOR LEADERSHIP: HARNESSING THE BRAIN GAIN ADVANTAGE 132–33 (2015).

40. MEDINA, *supra* note 12, at 51–52, 154; SWART ET AL., *supra* note 39, at 132–33.

41. MEDINA, *supra* note 12, at 19–31, 68; JOHN J. RATEY & RICHARD MANNING, GO WILD: EAT FAT, RUN FREE, BE SOCIAL, AND FOLLOW CIVILIZATION'S OTHER RULES FOR TOTAL HEALTH AND WELL-BEING 105–06 (2014).



## III. LEARNING AND MEMORY

*“Just because something happened does not mean everyone will remember it the same way.”*<sup>42</sup>

Cognitive capacity requires consciousness, attention, sensation, memory, intelligence, and knowledge and skill acquisition.<sup>43</sup> Consciousness, memory, and emotion are linked via the interactions between the emotional and thinking brains.<sup>44</sup> Emotions are shaped in the brain at an unconscious level by automated functions.<sup>45</sup> The learning process requires memory formation.<sup>46</sup>

“Memory is the ability to capture each successive ‘present moment’ within the nervous system so that we are forever changed by it.”<sup>47</sup> There are several types of memory.<sup>48</sup> Declarative memory is explicit because it requires conscious recollection.<sup>49</sup> Declarative memory is supported by the hippocampus in the emotional brain and can be either episodic or semantic.<sup>50</sup> Episodic memories are the biographical details of life’s adventures and events, and they are stored for recall from a neural loop that runs between the emotional and thinking brains.<sup>51</sup> Semantic memory is knowledge such as facts, data, concepts, and categories.<sup>52</sup> Retrieval of acquired semantic memory also involves this circuit in the emotional and thinking brains.<sup>53</sup> Procedural memory is learned physical activity, such as walking, skiing, or bicycle riding.<sup>54</sup> Implicit memory is memory that we are unaware of, such as implicit bias.<sup>55</sup> Whether memory becomes permanent in our brain depends on its novelty, whether it was experienced with emotional content, and the amount of time and effort spent rehearsing and recalling it.<sup>56</sup>

Memories have varying life spans. There are four steps in the life cycle of declarative memory: encoding, storing, retrieving, and forgetting.<sup>57</sup> “Learning is a process in which neurons that fire

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42. AMY BRANN, *NEUROSCIENCE FOR COACHES: HOW TO USE THE LATEST INSIGHTS FOR THE BENEFIT OF YOUR CLIENTS* 56 (2d ed. 2017).

43. CARTER, *supra* note 9, at 156–61.

44. HORSTMAN, *supra* note 13, at 27.

45. *See id.*; CARTER, *supra* note 9, at 160.

46. *See* HORSTMAN, *supra* note 13, at 27–28.

47. BANICH & COMPTON, *supra* note 18, at 258.

48. CARTER, *supra* note 9, at 157.

49. BANICH & COMPTON, *supra* note 18, at 267.

50. *Id.*; MICHAEL S. SWEENEY, *BRAIN: THE COMPLETE MIND: HOW IT DEVELOPS, HOW IT WORKS, AND HOW TO KEEP IT SHARP* 242–43 (2009).

51. SWEENEY, *supra* note 50, at 242–43.

52. BANICH & COMPTON, *supra* note 18, at 277; SWEENEY, *supra* note 50, at 242–43.

53. BANICH & COMPTON, *supra* note 18, at 282; CARTER, *supra* note 9, at 160–61; SWEENEY, *supra* note 50, at 242–43.

54. CARTER, *supra* note 9, at 157.

55. *Id.*

56. *Id.* at 156.

57. MEDINA, *supra* note 12, at 128.

together to produce a particular experience are altered so that they have a tendency to fire together again.”<sup>58</sup> With repetition, the hippocampus in the emotional brain works with the thinking brain to move information through the same network of neurons to make the information stable in the brain.<sup>59</sup> To create durable memories in the brain, memory consolidation takes years of processing.<sup>60</sup>

Forming a long-term memory begins when the brain pays attention, which stimulates the neurons that register the experience to fire frequently.<sup>61</sup> The information enters the thinking brain as memory traces via the senses, such as sight and sound.<sup>62</sup> Memory traces are fragile and at risk of becoming extinct.<sup>63</sup> Emotional experiences are screened by and stored in the emotional brain in the amygdala, which begins the process of encoding that type of memory.<sup>64</sup> Short-term or working memory begins to process the new sensory information and provides a bridge to long-term memory consolidation.<sup>65</sup>

For declarative memory to become stable in the brain, it must travel from working memory to the hippocampus in the emotional brain for processing.<sup>66</sup> Information travels in a circuit between the thinking brain in the sensory locations where the memory traces originated, such as the occipital lobe for vision and the temporal lobe for sound, and the memory-processing hippocampus in the emotional brain for up to two years.<sup>67</sup>

Much of memory processing occurs while we sleep, making adequate sleep very important to the learning process.<sup>68</sup> Getting a sufficient amount of sleep is critical to thinking and learning because sleep deprivation impairs “attention, executive function, working memory, mood, quantitative skills, logical reasoning ability, general math knowledge,” and manual dexterity.<sup>69</sup> Habits that can interfere with sleep include ingesting caffeine late in the day, the intake of nicotine and alcohol, and the use of digital media too close to bedtime.<sup>70</sup> Failure to get adequate sleep may also limit the brain’s capacity to rid itself of neurotoxins, which may increase the risk of Alzheimer’s disease.<sup>71</sup>

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58. CARTER, *supra* note 9, at 156.

59. MEDINA, *supra* note 12, at 152–53.

60. *Id.* at 154–55.

61. CARTER, *supra* note 9, at 160.

62. MEDINA, *supra* note 12, at 144, 154.

63. *Id.* at 144.

64. CARTER, *supra* note 9, at 160.

65. *Id.* at 161; MEDINA, *supra* note 12, at 142–43.

66. CARTER, *supra* note 9, at 161; MEDINA, *supra* note 12, at 154.

67. CARTER, *supra* note 9, at 161; HORSTMAN, *supra* note 13, at 5–6; MEDINA, *supra* note 12, at 154–55.

68. MEDINA, *supra* note 12, at 51–52, 154.

69. *Id.* at 48–49.

70. SWART ET AL., *supra* note 39, at 132.

71. *Id.* at 132–33.

Eventually, the hippocampus will let go of its relationship with the thinking brain, and fully consolidated memory is distributed in a web or network of connections throughout the thinking brain.<sup>72</sup> But memory consolidation is a lengthy process and the emotional brain's hippocampus may be involved in memory processing for up to eleven years.<sup>73</sup>

Maintaining the health of the emotional and thinking brains is crucial for memory processing and therefore crucial for learning. Adequate sleep is an important habit for empowering learning and maintaining a healthy brain. Another important challenge to brain health is managing stress.

#### IV. STRESS AND COGNITION

*“Worry never robs tomorrow of its sorrow, it only saps today of its joy.”*<sup>74</sup>

Stress arises when people feel threatened, and most stress is psychological.<sup>75</sup> Stress can be exacerbated by society's ever-increasing rate of change or by financial insecurity. It can also lead to absenteeism from work or school due to fatigue, anxiety, depression, and to chronic diseases such as obesity, high blood pressure, and heart disease.<sup>76</sup>

Stress is the “inability to cope with the demands or challenges presented to us,” but the original stress response evolved to help us fight or flee from predators.<sup>77</sup> Our fight-or-flight stress response begins when the amygdala in the emotional brain evaluates information for emotional significance and potential threat.<sup>78</sup> If a threat is detected, the hypothalamus in the emotional brain signals the nearby pituitary gland to produce a hormone that instructs the kidneys to release adrenaline and cortisol, and the fight-or-flight system is then initiated.<sup>79</sup> The stress response was designed to marshal resources to respond to a threat; it results in increased heart rate and blood pressure and can feel like a burst of energy.<sup>80</sup> Other systems noncritical to surviving the threat are temporarily suppressed, such as digestion, immune function, growth and tissue repair, and sex drive.<sup>81</sup> The fight-or-flight response was meant to help

72. CARTER, *supra* note 9, at 158–59; MEDINA, *supra* note 12, at 154–55.

73. MEDINA, *supra* note 12, at 154.

74. Henrik Edberg, *25 Empowering Worry Quotes*, POSITIVITY BLOG (July 16, 2014), <https://www.positivityblog.com/worry-quotes/> (quoting Leo F. Buscaglia).

75. SWART ET AL., *supra* note 39, at 151.

76. *Id.* at 151–53.

77. HORSTMAN, *supra* note 13, at 55.

78. CARTER, *supra* note 9, at 126.

79. *Id.* at 240; HORSTMAN, *supra* note 13, at 55–56; MEDINA, *supra* note 12, at 62.

80. MEDINA, *supra* note 12, at 62–63.

81. SAPOLSKY, *supra* note 12, at 11.

us solve short-term problems, and long-term stress is hazardous for the health of our bodies and brains.<sup>82</sup>

When the stressful situation resolves, the stress response should stop.<sup>83</sup> Designed to deal with acute short-term stress, the fight-or-flight system boosts physical and mental performance.<sup>84</sup> But when we experience chronic long-term stress due to family demands, financial problems, or workplace issues, the stress response fails to turn off.<sup>85</sup> This is also the case for people who suffer from anxiety disorders and depression.<sup>86</sup>

An unfettered stress response causes a multitude of health problems.<sup>87</sup> Excess adrenaline causes scarring of the blood vessels, which can increase plaque buildup and raise the risk of heart disease and strokes.<sup>88</sup> Chronic stress compromises the immune system, making it more difficult for the body to fight infection.<sup>89</sup> When key physical systems are suppressed by the stress response, we are susceptible to headaches, eating disorders, digestion and gastrointestinal problems, ulcers, colds, increased cancer risk, anxiety, and depression.<sup>90</sup>

The impact of living with chronic stress may also weaken cognitive capacity and degrade performance. Neurogenesis is the growth of new brain cells in the memory-processing hippocampus.<sup>91</sup> Neurogenesis can be stimulated with learning and exercise, but it can also be suppressed by stress.<sup>92</sup> There are ample stress hormone receptors in the hippocampus, making it extremely susceptible to stress.<sup>93</sup> High levels of stress hormones cause hippocampal neuron damage and death, and leave remaining neurons less functional.<sup>94</sup>

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82. MEDINA, *supra* note 12, at 63.

83. CARTER, *supra* note 9, at 240.

84. MEDINA, *supra* note 12, at 60, 63.

85. *Id.* at 63; SAPOLSKY, *supra* note 12, at 13, 16.

86. CARTER, *supra* note 9, at 240; SAPOLSKY, *supra* note 12, at 35, 318–19.

87. MEDINA, *supra* note 12, at 63–67.

88. *Id.* at 63–64.

89. *Id.* at 64.

90. CARTER, *supra* note 9, at 224, 240; SAPOLSKY, *supra* note 12, at 71–72, 79–91, 167, 171, 291–94.

91. JUDITH HORSTMAN, THE SCIENTIFIC AMERICAN BRAVE NEW BRAIN 8, 10 (2010).

92. SWEENEY, *supra* note 50, at 294; *see also* SAPOLSKY, *supra* note 12, at 217–18 (describing how the impact of stress on neurogenesis is reflected in a reduction of brain cell growth in rats after only a few hours of exposure to glucocorticoids).

93. MEDINA, *supra* note 12, at 65; PRINCIPLES OF NEURAL SCIENCE 1320 (Eric R. Kandel et al. eds., 5th ed. 2013).

94. Andrea C. Gore, *Hypothalamic Control of Anterior Pituitary Hormones and Their Regulated Functions*, in FUNDAMENTAL NEUROSCIENCE 804 (Larry R. Squire et al. eds., 4th ed. 2013); *see also* HORSTMAN, *supra* note 13, at 57; SAPOLSKY, *supra* note 12, at 215–20; SWEENEY, *supra* note 50, at 124.

Brain scans show that the hippocampi shrink in people who experience stress, depression, and PTSD.<sup>95</sup> Research indicates that cognitive performance deteriorates during the fight-or-flight response, which is how the body reacts to stress.<sup>96</sup> Stress can impair concentration, memory, problem-solving capacity, and language and math processing.<sup>97</sup> Motivation, creativity, and curiosity are also inhibited.<sup>98</sup> Persistent stress increases the risk of weight gain, gastrointestinal problems, and heart disease.<sup>99</sup>

Two new studies indicate that lawyers should reduce their stress and that it is never too late to invest in improved brain health. Adults in midlife with increased levels of the stress hormone cortisol had reduced brain structure and cognitive ability.<sup>100</sup> Data from 2,018 Framingham Heart Study participants, with an average age of forty-eight, showed that participants with an elevated cortisol level performed worse on memory and other cognitive tasks than participants with average cortisol levels.<sup>101</sup> Higher cortisol was also associated with smaller brain volume in those subjects.<sup>102</sup> However, it is possible to heal the brain with healthy habits.<sup>103</sup> A second study on 160 sedentary adults over age fifty-five and at risk for cognitive decline showed that adding aerobic exercise—and better yet a combination of aerobic exercise and the heart-healthy Dietary Approaches to Stop Hypertension (“DASH”) diet—improved their executive functioning.<sup>104</sup>

Neuroplasticity is the consistent rewiring of the brain’s network of neurons with every experience, thought, and action.<sup>105</sup> Habits and

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95. See SAPOLSKY, *supra* note 12, at 221.

96. JOHN J. RATEY & ERIC HAGERMAN, SPARK: THE REVOLUTIONARY NEW SCIENCE OF EXERCISE AND THE BRAIN 67–68 (2008); *see also* GAYATRI DEVI, A CALM BRAIN: HOW TO RELAX INTO A STRESS-FREE, HIGH-POWERED LIFE 83–86 (2012).

97. MEDINA, *supra* note 12, at 65.

98. DAVID PERLMUTTER & ALBERTO VILLOLDO, POWER UP YOUR BRAIN: THE NEUROSCIENCE OF ENLIGHTENMENT 61 (2011).

99. Rich Haridy, *Stress in Middle Age Found to Shrink Your Brain and Impair Memory*, NEW ATLAS (Oct. 25, 2018), <https://newatlas.com/stress-memory-cortisol-brain-size/56947/>.

100. Justin B. Echouffo-Tcheugui et al., *Circulating Cortisol and Cognitive and Structural Brain Measures: The Framingham Heart Study*, 91 NEUROLOGY e1961, e1961 (2018), <http://n.neurology.org/content/91/21/e1961>; UNIV. OF TEX. HEALTH SCI. CTR. AT SAN ANTONIO, *Stress Can Impair Memory, Reduce Brain Size in Middle Age*, SCI. DAILY (Oct. 25, 2018), <https://www.sciencedaily.com/releases/2018/10/181025084043.htm>.

101. UNIV. OF TEX. HEALTH SCI. CTR. AT SAN ANTONIO, *supra* note 100.

102. *Id.*

103. James A. Blumenthal et al., *Lifestyle and Neurocognition in Older Adults with Cognitive Impairments: A Randomized Trial*, 92 NEUROLOGY e212, e213, e220 (2019), <https://n.neurology.org/content/neurology/92/3/e212.full.pdf>.

104. *Id.*

105. CARTER, *supra* note 9, at 197; RATEY & HAGERMAN, *supra* note 96, at 36; SWEENEY, *supra* note 50, at 17.

practices, whether helpful or harmful, are solidified when our network of neurons that “fire together” also “wire together.”<sup>106</sup>

A lawyer of any age can gain a brain benefit from adding more physical activity into her life.<sup>107</sup> Adopting an aerobic exercise routine, or any activity that raises your heart rate, improves cardiovascular health, which reduces the risk of stroke and heart attack.<sup>108</sup> Raising the heart rate distributes food resources to the body and brain, but it also eliminates toxins.<sup>109</sup> Exercise also produces brain-derived neurotrophic factor (“BDNF”), which acts like a fertilizer for the brain.<sup>110</sup> BDNF helps the hippocampus grow new brain cells, safeguards existing neurons, encourages the synaptic connections between brain cells, and protects against the harmful effects of stress.<sup>111</sup>

The fight-or-flight stress response evolved to help us rise to the challenge of handling short-term problems, and this automatic process can provide the energy boost needed to get through a hearing or a weekend hike.<sup>112</sup> Although the stress response begins without us realizing it, at some point we begin to feel the impacts of stress.<sup>113</sup> Scientists Jeansok Kim and David Diamond developed a three-part description of stress, and when a person experiences all three characteristics at the same time, she is feeling stressed:<sup>114</sup>

- A measurable physiological response: a state of physiological arousal that can be measured by another;
- A desire to avoid the stressor: the situation is perceived as a threat that should be circumvented if possible; and
- A loss of control: the source of the stress is beyond her control.<sup>115</sup>

The fight-or-flight stress response is an automated system that is triggered by emotional stimuli. The processing of various emotions can initiate this process.

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106. LEDOUX, *supra* note 8, at 79.

107. See MEDINA, *supra* note 12, at 23–32, 68.

108. *Id.* at 23.

109. *Id.* at 30.

110. *Id.* at 31, 68.

111. *Id.*

112. *Id.* at 60–63.

113. *Id.* at 61.

114. Jeansok J. Kim & David M. Diamond, *The Stressed Hippocampus, Synaptic Plasticity and Lost Memories*, 3 NATURE REVIEWS: NEUROSCIENCE 453, 454 (2002).

115. MEDINA, *supra* note 12, at 61.

## V. EMOTION

*We are exquisitely sensitive to our surroundings. Because of the wire-on-the-fly strategy of the human brain, who we are depends heavily on where we've been.*<sup>116</sup>

The categorization of emotions is an evolving science, thanks to the work of psychologists, neuroscientists, and behavioral biologists.<sup>117</sup> Two widely accepted frameworks of primary emotions stem from research on human facial expressions (fear, anger, disgust, sadness, surprise, and happiness) and animal behavior (seeking, lust, fear, panic, rage, care, and play).<sup>118</sup>

Humans experience emotion, infer how emotions impact others, and scrutinize emotions to better understand each other.<sup>119</sup> Emotions are often triggered by events in our environment, which can result in changes in behavior.<sup>120</sup> The ways people experience emotions vary widely, and there is evidence that processing emotion is strongly influenced by genetics.<sup>121</sup> “Some people are more easily scared than others; some stay afraid or sad longer than others do.”<sup>122</sup> In his book *The Orchid and the Dandelion: Why Some Children Struggle and How All Can Thrive*, Dr. Thomas Boyce describes the difference between sensitive children, who are highly susceptible to environmental conditions, and resilient children, who are mostly unflappable.<sup>123</sup> He calls sensitive kids orchids and resilient kids dandelions.<sup>124</sup> Another study of 906 adults found they had a range of three sensitivity levels to environmental influences with 31% determined to be highly-sensitive orchids, 40% were medium-sensitivity tulips, and 29% were resilient dandelions.<sup>125</sup>

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116. DAVID EAGLEMAN, *THE BRAIN: THE STORY OF YOU* 13 (2017).

117. ADOLPHS & ANDERSON, *supra* note 2, at 4, 8, 16.

118. *Id.* at 5–6.

119. *Id.* at 15–16, 49.

120. *Id.* at 8, 41.

121. *Id.* at 47.

122. *Id.*

123. *Is Your Child an Orchid or a Dandelion? Unlocking the Science of Sensitive Kids*, NPR (Mar. 4, 2019, 3:38 PM), <https://www.npr.org/sections/health-shots/2019/03/04/699979387/is-your-child-an-orchid-or-a-dandelion-unlocking-the-science-of-sensitive-kids>. See generally W. THOMAS BOYCE, *THE ORCHID AND THE DANDELION: WHY SOME CHILDREN STRUGGLE AND HOW ALL CAN THRIVE* (2019) (exploring the “dandelion” children that are able to survive and flourish under most circumstances and the “orchid,” or more sensitive, children that can thrive as much as, if not more than, other children given the right support).

124. *Is Your Child an Orchid or a Dandelion? Unlocking the Science of Sensitive Kids*, *supra* note 123.

125. Francesca Lionetti et al., *Dandelions, Tulips and Orchids: Evidence for the Existence of Low-sensitive, Medium-sensitive and High-sensitive Individuals*, *TRANSLATIONAL PSYCHIATRY*, Jan. 2018, at 1 <https://www.nature.com/articles/s41398-017-0090-6.pdf>.

Emotion states can be attributed to individuals and to groups.<sup>126</sup> Emotion developed to help us respond and adapt to challenges in our environment, including decision-making and threat processing.<sup>127</sup> Emotion is experienced somewhere between a reflex and a deliberate choice, with aspects of automaticity and control that are malleable with learning.<sup>128</sup>

Scientists have studied emotion in animals by examining their behavioral response to stimuli, and research has examined both innate automatic reactions and learned responses.<sup>129</sup> Freezing and flight are innate instinctive behaviors, but animals can be conditioned to perform them when subjected to stimuli such as foot shocks.<sup>130</sup> The list of emotions experienced by animals are described in terms of their behaviors: seeking, lust, fear, panic, rage, care, and play.<sup>131</sup>

The primary emotions experienced by humans are fear, anger, sadness, disgust, surprise, and happiness.<sup>132</sup> Emotions are automatic and unconscious physical responses to stimuli that cause changes in the body such as increased heart rate and blood pressure, blushing, and sweaty hands.<sup>133</sup> Feelings are the conscious perceptions of emotions that enrich our experiences with meaning.<sup>134</sup> Feelings can be described as “the story the brain constructs to explain bodily reactions to the environment.”<sup>135</sup>

Emotion begins when a stimulus is perceived by the senses and the amygdala in the emotional brain, which is consistently scanning for threats and opportunities, responds.<sup>136</sup> If a threat is recognized, the vigilant amygdala triggers the fight-or-flight half of the autonomic nervous system.<sup>137</sup> The amygdala instructs the hypothalamus to release hormones that activate the sympathetic nervous system.<sup>138</sup> Adrenaline is released from the adrenal gland sitting on top of the kidneys and heart rate accelerates, blood pressure increases, and blood sugar is elevated to assist in a fight-or-flight response to the threat.<sup>139</sup> At the same time, digestion and immune

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126. ADOLPHS & ANDERSON, *supra* note 2, at 58.

127. *Id.* at 59–60.

128. *Id.* at 62.

129. *Id.* at 161.

130. *Id.* at 162.

131. *Id.* at 6.

132. *Id.*; CARTER, *supra* note 9, at 129; SWEENEY, *supra* note 50, at 208.

133. CARTER, *supra* note 9, at 126, 129; Joseph E. LeDoux & Antonio R. Damasio, *Emotions and Feelings*, in *PRINCIPLES OF NEURAL SCIENCE*, *supra* note 93, at 1079, 1079.

134. CARTER, *supra* note 9, at 128; LeDoux & Damasio, *supra* note 133, at 128.

135. GIBB, *supra* note 15, at 96 (quoting Antonio Damasio).

136. HORSTMAN, *supra* note 13, at 27, 141.

137. GIBB, *supra* note 15, at 96; HORSTMAN, *supra* note 13, at 33–34.

138. GIBB, *supra* note 15, at 96–97; HORSTMAN, *supra* note 13, at 33–34; SAPOLSKY, *supra* note 12, at 22.

139. SAPOLSKY, *supra* note 12, at 21–22.



response is suppressed.<sup>140</sup> The brain has a heightened awareness of predators, food sources, mating potential, and novelty.<sup>141</sup> When the threat is neutralized, the parasympathetic system returns the body and brain to equilibrium by shutting off the sympathetic response, slowing heart rate, reactivating digestion, restoring calm, and promoting energy storage.<sup>142</sup>

Psychologists describe emotion states in terms of valence, whether a person evaluates a stimulus or feeling as pleasant or unpleasant.<sup>143</sup> Of the six primary emotions, at least four of them likely involve the sympathetic fight-or-flight stress response: fear, anger, sadness, and disgust.<sup>144</sup> Surprise could also trigger this response.<sup>145</sup> Stress hormones are released during these survival emotions (also known as escape or avoidance emotions).<sup>146</sup>

Stress harms our cardiovascular and immune systems, and exposure to chronic stress impairs learning and memory.<sup>147</sup> Stress hormones, known as glucocorticoids (such as cortisol), slow the birth of new brain cells in the hippocampus, kill existing hippocampal neurons, and disconnect the networks of neurons that move information through your brain.<sup>148</sup> Prolonged chronic stress can cause depression.<sup>149</sup>

Anxiety is not included in the list of primary emotions, possibly because it is an anticipatory state involving fear of something anticipated in the future.<sup>150</sup> Although anxiety can have a major impact on cognitive processing, treatments are insufficient because they are either ineffective or produce negative side effects.<sup>151</sup> It remains unclear whether the brain knows the difference between fear and anxiety.<sup>152</sup>

The emotion of disgust evolved to help us avoid contaminated or poisonous food sources.<sup>153</sup> Humans continually learn about many types of stimuli that signal toxicity or threat, where the corresponding emotional response is disgust or fear.<sup>154</sup> We are likely unaware of some of the impact emotions have because they occur below our

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140. CARTER, *supra* note 9, at 127; MEDINA, *supra* note 12, at 64; SAPOLSKY, *supra* note 12, at 21.

141. MEDINA, *supra* note 12, at 113.

142. SAPOLSKY, *supra* note 12, at 22–23.

143. ADOLPHS & ANDERSON, *supra* note 2, at 62.

144. *See id.* at 6; SWART ET AL., *supra* note 39, at 12.

145. SWART ET AL., *supra* note 39, at 12.

146. *Id.*

147. MEDINA, *supra* note 12, at 63–67.

148. *Id.* at 66–67.

149. *Id.* at 67.

150. ADOLPHS & ANDERSON, *supra* note 2, at 189.

151. *Id.* at 189–90.

152. *Id.* at 190.

153. *Id.* at 19.

154. *Id.* at 97.

conscious awareness.<sup>155</sup> Neuroscientist Read Montague discovered a link between disgust and political orientation.<sup>156</sup> He measured the responses to pictures of disgusting items such as corpses and rotting food while participants were in a brain scanner.<sup>157</sup> After the scanning, participants took a survey on their political ideology, answering questions about issues such as abortion and gun control.<sup>158</sup> He discovered that the more disgusted participants were by the images, the more politically conservative they tended to be.<sup>159</sup> The less disgusted, the more liberal the participant was.<sup>160</sup> The connection was so significant that a person's disgust response to a single image predicted political ideology with 95% accuracy.<sup>161</sup>

Emotion is important to our family and work lives because stress is a ubiquitous feature of our culture. The American Psychological Association ("APA") reports that Americans say they are stressed by various aspects of life at the following rates: money 62%; work 61%; current social divisiveness 59%; health care 43%; the economy 35%; trust in government 32%; hate crimes 31%; crime generally 31%; war/conflicts with other countries 30%; terrorist attacks in the US 30%; unemployment and low wages 22%; and the environment and climate change 21%.<sup>162</sup>

Stress can take a tremendous toll on well-being including increased anxiety, depression, and substance misuse. In May 2018, a poll sponsored by the APA found that almost 40% of Americans reported greater levels of anxiety than the previous year.<sup>163</sup> Depression and suicide rates are rising in the United States, and untreated depression raises the risk of stroke, heart attacks, and dementia.<sup>164</sup> Women are nearly twice as likely to suffer from depression than men.<sup>165</sup>

A 2018 study by the international recruitment firm Robert Half ranked workplace stress by country, and it found that women

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155. EAGLEMAN, *supra* note 116, at 123.

156. *Id.*

157. *Id.*

158. *Id.*

159. *Id.*

160. *Id.*

161. *Id.* at 123–24.

162. Press Release, AM. PSYCHOL. ASS'N, *APA Stress in America Survey* (Nov. 1, 2017), <https://www.apa.org/news/press/releases/2017/11/lowest-point.aspx>.

163. Jamie Ducharme, *A Lot of Americans Are More Anxious Than They Were Last Year, a New Poll Says*, TIME (May 8, 2018, 9:36 PM), <http://time.com/5269371/americans-anxiety-poll/>.

164. Temma Ehrenfeld, *Depression: The Growing American Mental Health Storm*, HEALTHLINE (July 31, 2018), <https://www.healthline.com/health-news/depression-the-growing-american-mental-health-storm#2>.

165. Debra J. Brody et al., *Prevalence of Depression Among Adults Aged 20 and Over: United States, 2013–2016*, NAT'L CTR. FOR HEALTH STATISTICS 1 (Feb. 2018), <https://www.cdc.gov/nchs/data/databriefs/db303.pdf>.

reported greater workplace stress than men.<sup>166</sup> The report ranked the following countries based on their levels of workplace stress, from highest to lowest: 1) Germany; 2) France; 3) Canada; 4) Belgium; 5) the United States; 6) the United Kingdom; 7) Australia; and 8) the Netherlands.<sup>167</sup>

Recent research indicates that law students and lawyers suffer from significant well-being problems, likely due to high stress in the school and work environments.

#### VI. LAW STUDENTS AND LAWYERS ARE AT RISK FOR IMPAIRED WELL-BEING

*“Your brain is a relentless shape-shifter, constantly rewriting its own circuitry – and because your experiences are unique, so are the vast, detailed patterns in your neural networks. Because they continue to change your whole life, your identity is a moving target; it never reaches an endpoint.”*<sup>168</sup>

Law is a cognitive profession, and the brain is the lawyer’s main asset. The stressors of work in the legal field can take a tremendous toll on cognitive ability. Stress is a pervasive 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 anxiety, depression, substance abuse, and increased suicide risk.<sup>169</sup>

From July 2014 through February 2015, there were seven law student suicides and one law professor suicide.<sup>170</sup> Suicide is the third-leading cause of death for lawyers, behind cancer and heart disease, and the rate at which lawyers take their own lives is six times higher than the general population.<sup>171</sup> In a heartbreaking editorial, one

166. *Australians Among the Least Stressed Workers Globally*, ROBERT HALF (July 18, 2018), [https://www.roberthalf.com.au/sites/roberthalf.com.au/files/press-release/AU\\_Robert%20Half%20Media%20Alert\\_WH%20most%20stressed%20employee.pdf](https://www.roberthalf.com.au/sites/roberthalf.com.au/files/press-release/AU_Robert%20Half%20Media%20Alert_WH%20most%20stressed%20employee.pdf).

167. *Australia – Australians Among the Least Stressed Workers Worldwide, Robert Half Finds*, SIA: DAILY NEWS (July 24, 2018), <https://www2.staffingindustry.com/row/Editorial/Daily-News/Australia-Australians-among-the-least-stressed-workers-worldwide-Robert-Half-finds-46816>; Oliver Featherston, *How Stressed Are You? 8 Countries Ranked by Stress Level*, CEO MAG. (July 20, 2018), <https://www.theceomagazine.com/business/management-leadership/how-stressed-are-you-8-countries-ranked-by-stress-level/>.

168. EAGLEMAN, *supra* note 116, at 3.

169. Lawrence S. Krieger, *Institutional Denial About the Dark Side of Law School, and Fresh Empirical Guidance for Constructively Breaking the Silence*, 52 J. LEGAL EDUC. 112, 114–15 (2002); *see also* NANCY LEVIT & DOUGLAS O. LINDER, *THE HAPPY LAWYER: MAKING A GOOD LIFE IN THE LAW* 6–8 (2010).

170. Jerome M. Organ et al., *Suffering in Silence: The Survey of Law Student Well-Being and the Reluctance of Law Students to Seek Help for Substance Use and Mental Health Concerns*, 66 J. LEGAL EDUC. 116, 117 (2016).

171. *Depression and Suicide*, N.C. LAWYER ASSISTANCE PROGRAM, <https://www.nclap.org/depression-suicide/>.

lawyer described how the work conditions at a large law firm caused her lawyer husband to take his own life.<sup>172</sup> The factors she details that led to her husband's suicide include: intense workload and level of responsibility, social isolation caused by the loss of critical colleagues and mentors, perfectionism and imposter syndrome, and a pattern of binge drinking to try to cope with his stress.<sup>173</sup>

Law students begin law school with strong well-being and a high level of satisfaction with life generally, but within the first year of law school, they experience a significant increase in anxiety and depression.<sup>174</sup> In a 2014 study across fifteen law schools, including over 11,000 law student participants, the research revealed that:

- 37% of law students reported anxiety, compared to 15% of other graduate students, and
- 17% of law students reported depression, compared to 14% of other graduate students.<sup>175</sup>

Law students may deal with stress by self-medicating. In the same study, researchers found that:

- 90% of law students had consumed alcohol within thirty days;
- 53% of law students consumed sufficient alcohol to get drunk in the last thirty days, compared to 39% of other graduate students;
- 43% participated in binge drinking at least once in the previous two weeks, compared to 36% of other graduate students; and
- 22% participated in binge drinking twice in the prior two weeks, compared to 21% of other graduate students.<sup>176</sup>

In 2017, law students at Harvard insisted on a survey of their well-being, and the *Harvard Crimson* described the results as grisly: 25% of the 886 respondents suffered from depression, compared to the CDC data indicating that 7.7% of individuals in the general population, age 20 to 39, suffer from depression.<sup>177</sup> The research

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172. Joanna Litt, *Big Law Killed My Husband: An Open Letter from a Sidley Partner's Widow*, RECORDER (Nov. 12, 2018), <https://www.law.com/therecorder/2018/11/12/big-law-killed-my-husband-an-open-letter-from-a-sidley-partners-widow/>.

173. *Id.*

174. Krieger, *supra* note 169, at 113–15.

175. Organ et al., *supra* note 170, at 122–24, 136–37.

176. *Id.* at 123–24, 127–29.

177. Amanda H. Chan et al., *Wellness at the Law School: Promises to Keep and Miles to Go Before We Sleep*, HARV. CRIMSON (Mar. 29, 2018),

revealed that 24.2% of the students struggled with anxiety; 20.5% felt a heightened risk of suicide; 61.8% had frequent imposter syndrome experiences at school; 8.2% stated they had no people in their lives that they could be authentic with regarding private feelings; and 66% experienced new mental health challenges during law school.<sup>178</sup>

The well-being risks exposed in law school continue into the early years of legal practice.<sup>179</sup> In a 2015 study of 12,825 attorneys practicing in nineteen states, 23% experienced stress, 19% had anxiety, and 28% suffered from depression.<sup>180</sup> Lawyers with mental health issues may be self-medicating with alcohol and other substances.<sup>181</sup> This study revealed that 20.6% of these employed lawyers qualified as problem drinkers, compared to 11.8% of other highly-educated professionals.<sup>182</sup> Lawyers working in law firms, and those in the first ten years of law practice, experienced the highest levels of problematic alcohol use.<sup>183</sup>

Three significant reports that have examined legal education and law practice provide insight into the decline in well-being experienced by law students and lawyers. They focus on professional identity development (*Carnegie Report*)<sup>184</sup>, character quotient training (*Foundations for Practice Report*)<sup>185</sup>, and well-being education (*Path to Lawyer Well-being Report*).<sup>186</sup>

The *Carnegie Report* describes three apprenticeships in legal education: the intellectual apprenticeship, where students acquire a knowledge base; the practice apprenticeship, where students learn practical legal skills; and the professional identity apprenticeship, where students cultivate the attitudes and values of the legal profession.<sup>187</sup> The socialization process of legal education shapes the law student's professional identity.<sup>188</sup> Key features of law school

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<http://www.thecrimson.com/article/2018/3/29/lee-chan-savitt-wellness-at-law-school/>.

178. *Id.*

179. Patrick R. Krill, Ryan Johnson, & Linda Albert, *The Prevalence of Substance Use and Other Mental Health Concerns Among American Attorneys*, 10 J. ADDICTION MED. 46, 51 (2016).

180. *Id.* at 46.

181. *Id.* at 51. Other substances used by lawyers in the study in the prior twelve months included tobacco (16.9%), sedatives (15.7%), marijuana (10.2%), opioids (5.6%), and stimulants (4.8%). *Id.* at 47.

182. *Id.* at 51.

183. *Id.*

184. WILLIAM M. SULLIVAN ET AL., EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW 3 (2007).

185. ALI GERKMAN & LOGAN CORNETT, FOUNDATIONS FOR PRACTICE: THE WHOLE LAWYER AND THE CHARACTER QUOTIENT 1 (2016).

186. NATIONAL TASK FORCE ON LAWYER WELL-BEING, THE PATH TO LAWYER WELL-BEING: PRACTICAL RECOMMENDATIONS FOR POSITIVE CHANGE 7–9 (2017), <https://www.americanbar.org/content/dam/aba/images/abanews/ThePathToLawyerWellBeingReportRevFINAL.pdf>.

187. SULLIVAN ET AL., *supra* note 184, at 28.

188. *Id.* at 31.

culture are also sources of significant stress for students, including the grade curve and the “single-minded focus on competitive achievement” it inspires.<sup>189</sup> The professional identity development of law students is profoundly impacted by the competitive learning environment.<sup>190</sup>

Alfie Kohn’s research found that competition damages psychological well-being, poisons relationships, and compromises performance.<sup>191</sup> “[C]ompetition stokes panic and a desperate sense that every student is on his or her own, left to hack a solitary path through a dangerous educational jungle.”<sup>192</sup> Extreme competition in law school causes severe stress and can impair student cognitive capacity.<sup>193</sup> Grading on a curve arbitrarily restricts the number of students who can achieve the highest grades.<sup>194</sup> This hypercompetitive assessment system, where grades are dependent upon the performances of others, discourages students, disincentivizes studying, creates a toxic learning environment, and indoctrinates students to a zero-sum culture where for one person to be successful, another person must fail.<sup>195</sup> Cutthroat education environments reduce the social connections and sense of belonging that students desire, which can increase the risk of anxiety, depression, and suicide.<sup>196</sup>

The *Foundations for Practice Report* is the result of a 2014-2015 survey of more than 24,000 lawyers from all fifty states.<sup>197</sup> The *Foundations for Practice Report* recommends that law schools provide well-being training, including self-regulation skills such as positivity and managing stress; exhibiting flexibility, adaptability, and resilience during challenging circumstances; and decision-making under pressure.<sup>198</sup> It also recommended law schools teach character attributes such as courtesy, humility, respect, tact, diplomacy, sensitivity, tolerance, and compassion.<sup>199</sup>

The American Bar Association recognized that law students and lawyers are at risk for suffering from impaired well-being; it formed a Task Force that released the *Path to Lawyer Well-being Report*, or

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189. *Id.*

190. *Id.*

191. Scott Sherman, *Changing the World: The Science of Transformative Action*, in POSITIVE PSYCHOLOGY AS SOCIAL CHANGE 329, 344 (2011).

192. MARGARET HEFFERNAN, A BIGGER PRIZE: HOW WE CAN DO BETTER THAN THE COMPETITION 28 (2014).

193. Krieger, *supra* note 169, at 112–15.

194. Adam Grant, Opinion, *Why We Should Stop Grading Students on a Curve*, N.Y. TIMES, Sept. 10, 2016, <https://www.nytimes.com/2016/09/11/opinion/sunday/why-we-should-stop-grading-students-on-a-curve.html>.

195. *Id.*

196. *Id.*

197. GERKMAN & CORNETT, *supra* note 185, at 1.

198. *Id.* at 30, 33.

199. *Id.* at 30.

the *Path Report*.<sup>200</sup> The *Path Report* lists thirteen recommendations for all legal profession stakeholders, and then offers specific recommendations for judges, attorney regulators, legal employers, law schools, bar associations, professional liability carriers for lawyers, and lawyer assistance programs.<sup>201</sup> The *Path Report* seeks to acknowledge the legal profession's mental health and substance use problems, and seeks to change the cultures in which law students are educated and lawyers practice law.<sup>202</sup> The *Path Report* states three reasons to address the lawyer well-being crisis: to enhance the effectiveness of legal organizations; to improve the professional and ethical behavior of lawyers; and to help individual lawyers thrive in the physical, emotional, intellectual, occupational, social, and spiritual domains of life.<sup>203</sup>

The *Path Report* urges leaders in the profession to create cultural change.<sup>204</sup> The recommendations for law schools include:

- Identifying organizational practices that may contribute to well-being problems and assessing changes that can be made;
- Educating faculty on well-being issues in the legal profession;
- Providing well-being curriculum to students;
- Promoting student resources that address mental health and substance use disorders;
- Surveying student well-being anonymously;
- Facilitating networks to support students in recovery; and
- Discouraging alcohol-centered social events.<sup>205</sup>

Research indicates that good habits and practices can protect the lawyer's brain as it ages. Getting sufficient sleep is necessary for memory and learning (because it supports memory consolidation) and for clearing waste that can build up and increase the risk of Alzheimer's disease.<sup>206</sup> Physical exercise builds brain resources and

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200. NATIONAL TASK FORCE ON LAWYER WELL-BEING, *supra* note 186, at 1.

201. *See id.* at 7–46 (discussing the issues facing and providing recommendations for well-being for judges, regulators, attorneys, law schools, and more).

202. *See id.* at 7, 12.

203. *Id.* at 8–9.

204. *See id.* at 12–21.

205. *Id.* at 35–40.

206. MEDINA, *supra* note 12, at 48–49, 51–52, 154; SWART ET AL., *supra* note 39, at 132–33.

protects against the negative impact of stress.<sup>207</sup> The capacity to regulate one's emotions is necessary to empower healthy habits.

## VII. EMOTION REGULATION

*Always bear in mind that your resolution to succeed is more important than any one thing.*<sup>208</sup>

"Emotion regulation refers to the ability to have some degree of volitional control over your emotion state, the conscious experience of that state, and the behavioral and autonomic expression of that state."<sup>209</sup> Mindfulness, the art of focusing on the present moment, can inspire emotion regulation, which benefits the person practicing self-control and the persons she interacts with.<sup>210</sup> The Inuit people, who live near the Arctic Circle, use storytelling to teach their children emotion regulation.<sup>211</sup> These gentle parents do not scold, yell, or administer time outs.<sup>212</sup> They do not react thoughtlessly to poor behavior.<sup>213</sup> Once everyone is calm, they tell a story, often with humor and sometimes with an element of danger.<sup>214</sup> Some are standard tales, such as the story of the sea monster that grabs children that wander too near to the ocean, and adopts them out to a different family.<sup>215</sup> This is the strategy of using storytelling to discipline.<sup>216</sup>

Some stories are customized to demonstrate the consequences of unfortunate behavior.<sup>217</sup> These nurturing parents view yelling or speaking in an angry tone as demeaning and the act of an immature toddler.<sup>218</sup> They believe children who observe this behavior in adults are taught that yelling and anger are acceptable methods for solving problems.<sup>219</sup> Instead, a parent whose child is hitting another waits for the incident to subside and then invites the child to hit her.<sup>220</sup> The

207. MEDINA, *supra* note 12, at 19–31, 68; RATEY & MANNING, *supra* note 41, at 105–06.

208. Words of Abraham Lincoln from a letter that Lincoln wrote to Isham Reavis in 1855. Diane Barber, *My 10 Favorite Lincoln Quotes*, FORD'S THEATRE <https://www.fords.org/blog/post/my-10-favorite-lincoln-quotes/> (last visited Oct. 18, 2019).

209. ADOLPHS & ANDERSON, *supra* note 2, at 87.

210. See JEENA CHO & KAREN GIFFORD, *THE ANXIOUS LAWYER: AN 8-WEEK GUIDE TO A JOYFUL AND SATISFYING LAW PRACTICE THROUGH MINDFULNESS AND MEDICATION* (2016).

211. Michaelleen Doucleff & Jane Greenhalgh, *How Inuit Parents Teach Their Kids to Control Their Anger*, KQED (Mar. 13, 2019), <https://www.kqed.org/mindshift/53283/how-inuit-parents-teach-kids-to-control-theiranger>.

212. *Id.*

213. *Id.*

214. *Id.*

215. *Id.*

216. *Id.*

217. *Id.*

218. *Id.*

219. *Id.*

220. *Id.*



parent then voices the consequence, exclaiming for example, “Ouch, that hurts.”<sup>221</sup> The parent will repeat this form of storytelling for subsequent hitting incidents until the child declines to hit the parent, realizing that causing that kind of pain is not what they want to do.<sup>222</sup>

Parents who control their emotions are teaching their children to do the same.<sup>223</sup> The Inuit people use modeling and the oral storytelling tradition to transmit their values and behavior standards to their young.<sup>224</sup> When parents in other cultures outsource their storytelling to content on a screen, it is a missed opportunity to influence emotion regulation in their children.<sup>225</sup>

Moving along the spectrum of reacting to an emotion state, from the reflex end toward the regulation end of thoughtful response, requires metacognitive skill.<sup>226</sup> Metacognition skills that enhance emotion regulation include insight, flexible perspective taking, and evaluation of the consequences of your actions.<sup>227</sup> The process of experiencing an emotion state starts with the perception of a situation, is followed by evaluation, and ends with action.<sup>228</sup> Deployment of metacognitive skills can optimize the interaction in the environment.<sup>229</sup> Some of these skills include avoidance, suppression, and reappraisal.<sup>230</sup>

People who learn reappraisal, a technique for reinterpreting a situation in order to transform its emotional meaning, can change the evaluation of the situation.<sup>231</sup> Reappraisal, also called reframing, is learning to actively challenge negative interpretations and find positive ways to interpret stressful situations.<sup>232</sup>

Building a strong social network helps empower stress management and emotion regulation.<sup>233</sup> Strong relationships with significant others, friends, mentors, and confidants causes the brain to release oxytocin, which curbs the release of the stress hormone cortisol.<sup>234</sup>

While the survival emotions (fear, anger, disgust, and sadness) result in cortisol release, happiness can be subdivided into two secondary attachment emotion spectrums: the love and trust spectrum and the joy and excitement spectrum.<sup>235</sup> The attachment

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221. *Id.*

222. *Id.*

223. *Id.*

224. *Id.*

225. *Id.*

226. ADOLPHS & ANDERSON, *supra* note 2, at 89.

227. *Id.*

228. *Id.* at 88.

229. *Id.*

230. *Id.* at 87.

231. *Id.*

232. SWART ET AL., *supra* note 39, at 165.

233. *See id.* at 167.

234. *See id.*

235. *See id.* at 12.

emotions involve the neurotransmitters oxytocin, dopamine, and noradrenaline.<sup>236</sup> The final primary emotion, surprise, can switch emotion states from survival to attachment or from attachment to survival.<sup>237</sup>

Children in nurturing environments naturally experience the attachment emotions, but creating trust in higher education and work cultures requires an innovative leader.<sup>238</sup> Lawyers, along with engineers, accountants, scientists, and chief executive officers, are considered competent but not trustworthy.<sup>239</sup> Along with public distrust, lawyers distrust each other.<sup>240</sup> Lawyers must convince clients that they are credible and trustworthy. Also, creating a high-trust work environment would improve the well-being of lawyers working there.<sup>241</sup> High-trust environments are described as mutually cooperative, win-win, comfortable, supportive, motivating, and productive.<sup>242</sup> Low-trust cultures are described as competitive, adversarial, win-lose, threatening, divisive, stressful, and unproductive.<sup>243</sup>

Modern organizations must rely on strong relationships, innovation, and high-quality thinking.<sup>244</sup> Highly-educated, astute, intrinsically-motivated people need goals they can believe in and support.<sup>245</sup> Leaders cannot turn to hierarchical authority for power; they need to establish trust by inspiring, motivating, and persuading others.<sup>246</sup> A trusted leader creates a culture where anxiety, fear, and threats are diminished so creativity and thinking can thrive.<sup>247</sup> “Trust is the mental state of expecting fairness from the trusted.”<sup>248</sup>

Oxytocin is the neurotransmitter of bonding.<sup>249</sup> It is increased in relationships of love, trust, and social affiliation.<sup>250</sup> Trust is an important factor in strong relationships between people, between people and animals, and between people and organizations or brands.<sup>251</sup> Oxytocin supports trust relationships, and leaders that understand this can facilitate cultures that amplify trust.<sup>252</sup>

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236. *See id.*

237. *Id.*

238. *Id.* at 13.

239. RANDALL KISER, *SOFT SKILLS FOR THE EFFECTIVE LAWYER* 169–70 (2017).

240. *Id.* at 170.

241. *Id.* at 169, 171.

242. *Id.* at 171.

243. *Id.*

244. SWART ET AL., *supra* note 39, at 13.

245. *Id.*

246. *Id.*

247. *Id.* at 14.

248. *Id.*

249. *Id.* at 15.

250. *Id.*

251. *Id.* at 15–16.

252. *Id.*

An effective lawyer leader can establish a high-trust culture and promote well-being by focusing on six components of trust:

- Affinity: emphasizing empathy, common values, dreams, and objectives;
- Goodwill: elevating the welfare of others above the leader's, and demonstrating good faith, sincerity, and kindness while eliminating hidden agendas;
- Fairness: maintaining transparency, effective communication, and involving people in decisions that impact them;
- Competence: developing a reputation for honesty, strong judgment, expert knowledge, and outstanding performance;
- Communication: establishing timely, open, clear, honest, and unbiased methods of sharing information, including acknowledging setbacks and mistakes; and
- Integrity: conveying the values that support your decisions, and behaving consistently, predictably, and reliably.<sup>253</sup>

Knowing the effect of the neurochemicals on behavior may make it possible for a leader to consider his or her own behavior and what impact it is having on others and also consider what chemistry he or she wishes to trigger in employees. The neurochemistry of others' brains is triggered by what a leader does and doesn't do.<sup>254</sup> Knowing this fact might make a leader's interactions more efficient and deliberative.<sup>255</sup>

## VIII. EMOTION AND DECISION-MAKING

*"You must be the change you wish to see in the world."*<sup>256</sup>

Emotions drive decision-making.<sup>257</sup> Although we are mostly unaware of the physiological signals, they operate below the surface to help us select outfits, choose groceries, and avoid danger.<sup>258</sup> When faced with a decision, the brain favors the immediacy of what has our current attention over decisions that might be smarter in the long

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253. KISER, *supra* note 239, at 171–74.

254. SWART ET AL., *supra* note 39, at 16.

255. *Id.*

256. *Be the Change You Wish to See in the World*, QUOTE INVESTIGATOR (Oct. 23, 2017), <https://quoteinvestigator.com/2017/10/23/be-change/> (finding the first usage of this quote to be by author and educator Arleen Lorrance).

257. EAGLEMAN, *supra* note 116, at 119, 121.

258. *Id.* at 120–23.

term.<sup>259</sup> Decisions are reprioritized when more immediate needs become important.<sup>260</sup>

Self-control is the capacity to decide what to do, and when, and to forgo temptation and delay reward.<sup>261</sup> Willpower amounts to the application of limited cognitive resources, such as devising a list of options, crafting a plan, and making a decision—it is energy that gets depleted with use.<sup>262</sup> Willpower is not exercised—it is self-control that we expend.<sup>263</sup>

Self-control is important to achieving goals.<sup>264</sup> The Stanford Marshmallow Experiment on delaying gratification challenged children to either eat the marshmallow on the table in front of them while the investigator left the room or to wait for the investigator to return and be rewarded with two marshmallows.<sup>265</sup> When the principal investigator followed up with the study participants years later, he discovered that the children who were able to wait for additional marshmallows developed into young people who were achieving higher grades and adults who had healthier body mass indexes and higher salaries.<sup>266</sup> Brain scans of these adults demonstrated that those who could delay gratification had more activation of the prefrontal cortex in the thinking brain.<sup>267</sup> The prefrontal cortex is important to all executive function, planning, decision-making, aligning thoughts and acts with objectives, and managing social conduct.<sup>268</sup> Stress can impair the performance of the prefrontal cortex, compromising working memory, creativity, and problem-solving.<sup>269</sup>

Self-control involves the reward system in the emotional brain and the prefrontal cortex in the thinking brain.<sup>270</sup> The amygdala determines whether a stimulus is pleasant or unpleasant and whether an action should be repeated or avoided.<sup>271</sup> If the stimulus is a threat, the fight-or-flight stress response is initiated.<sup>272</sup> If no threat is present, the hippocampus in the emotional brain is consulted for memory information to aid in decision-making.<sup>273</sup>

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259. *Id.* at 129–31.

260. *Id.* at 135.

261. BRANN, *supra* note 42, at 135.

262. EAGLEMAN, *supra* note 116, at 135–36.

263. *Id.* at 136.

264. BRANN, *supra* note 42, at 135.

265. *Id.* at 136.

266. *Id.* at 136–37.

267. *Id.* at 137.

268. *Id.* at 19.

269. *Id.* at 20.

270. HORSTMAN, *supra* note 13, at 76–77.

271. *Id.* at 77.

272. CARTER, *supra* note 9, at 240; *see also* HORSTMAN, *supra* note 13, at 55–56; MEDINA, *supra* note 12, at 62.

273. HORSTMAN, *supra* note 13, at 77.

Impulse control is a challenge for everyone. Imagine you are a fan of chocolate cake. Your desire for the cake, the stimulus, registers in the ventral tegmental area in the emotional brain, which produces dopamine that travels the reward pathway to the nucleus accumbens, where pleasure is experienced in the emotional brain.<sup>274</sup> Dopamine is also sent to the prefrontal cortex, where planning and impulse control, to acquire or resist the cake, reside.<sup>275</sup> The onset of motivation and reward in the brain is automatic and unconscious, and the reward pathway can be hijacked by substance abuse, comfort foods, or behaviors that become compulsive such as gambling, shopping, or playing too many video games.<sup>276</sup> When the reward pathway is overwhelmed, impulse control can become nearly impossible, and you are going to acquire the chocolate cake.<sup>277</sup>

Dopamine is responsible for motivation and inspiring us to work for a reward.<sup>278</sup> Anticipating a reward, such as a good grade or a raise, is pleasurable and also stimulated by dopamine.<sup>279</sup> Goal-directed behavior involves the capacity to work for a reward that will come later and the willingness to postpone gratification.<sup>280</sup>

Lawyers are not only leaders in their own organizations and the legal system, but also in business, government, the media, and philanthropy.<sup>281</sup> In these leadership positions, they shape

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274. *Id.*

275. *Id.*; see also SAPOLSKY, *supra* note 12, at 337.

276. HORSTMAN, *supra* note 13, at 76–77.

277. *Id.* at 77.

278. SAPOLSKY, *supra* note 12, at 338–39.

279. *Id.*

280. *Id.* at 339.

281. See, e.g., JENNIFER E. MANNING, CONG. RESEARCH SERV., MEMBERSHIP OF THE 114TH CONGRESS: A PROFILE 4–5 (2016), <https://www.fas.org/sgp/crs/misc/R43869.pdf> (reporting that, in 2015, just under 40% of Congress members were lawyers, with 36% of the House and 54% of the Senate holding law degrees); Nick Robinson, *The Decline of the Lawyer-Politician*, 65 BUFF. L. REV. 657, 667, 669 (2017) (reporting that, since US independence, when twenty-five of the fifty-six signers of the Declaration of Independence were lawyers, 63% of the Cabinet members have also been lawyers); *Jobs in Business and Industry—A 20-Year Perspective—1994–2014*, NAT'L ASS'N FOR L. PLACEMENT (Feb. 2016), <http://www.nalp.org/0216research> (reporting that law graduates who take jobs in business and industry after law school number about 18%); *Occupational Outlook Handbook: Lawyers*, U.S. DEPT OF LAB.: BUREAU OF LAB. STAT., <https://www.bls.gov/ooh/legal/lawyers.htm#tab-3> (last modified Sept. 4, 2019) (reporting that, in 2018, 48% of lawyers provided legal services); Debra Cassens Weiss, *Lawyers No Longer Dominate Congress; Is Commercialization of Profession to Blame?*, AM. BAR ASS'N J. (Jan. 20, 2016, 8:06 AM), [http://www.abajournal.com/news/article/lawyers\\_no\\_longer\\_dominate\\_congress\\_is\\_commercialization\\_of\\_profession\\_to\\_b](http://www.abajournal.com/news/article/lawyers_no_longer_dominate_congress_is_commercialization_of_profession_to_b) (“59 percent of U.S. presidents have been lawyers, as well as 68 percent of vice presidents and 78 percent of secretaries of state.”); Mike Myatt, *Infographic: DNA of Fortune 100 CEOs*, FORBES (Aug. 13, 2013, 12:06 AM), <http://www.forbes.com/sites/mikemyatt/2013/08/13/infographic-dna-of-fortune-100-ceos/#735d7cd52104> (reporting that 20% of Fortune 100 CEOs have law degrees).

organizations and policy, and when they are trained to think that competitive structures outperform cooperative models, they tend to replicate them throughout society.<sup>282</sup> Toxic competition drives survival emotions.<sup>283</sup> Lawyer leaders must be intentional about developing cultures that minimize the escape/avoidance/survival emotions and maximize the love/trust and joy/excitement attachment emotions if they hope to empower the innovation and problem-solving capacity of their organizations, improve the well-being of their employees, and enhance the trust of their clients and constituents.<sup>284</sup>

Developing an awareness of the role of emotion in the decision-making process can help lawyers shape public policy.<sup>285</sup> Many people incarcerated by the criminal justice system understand the difference between right and wrong, but they also struggle with impulse control.<sup>286</sup> Since impulse control can be a struggle for all of us, such as whether to self-medicate with a glass of wine or grab takeout instead of making healthier diet choices after a long day at work, knowledge about decision-making can assist lawyers in guiding more empathetic public policy toward education and rehabilitation for people who commit crimes, people who suffer from substance abuse disorder, as well as other marginalized people in society.<sup>287</sup>

Empathy, the capacity to understand and respond to another's emotional state, may operate differently in the brains of men and women.<sup>288</sup> A brain scan study designed to measure empathy revealed that men, but not women, enjoyed seeing suffering in people that they categorized as "bad."<sup>289</sup> In men, both the empathy and pleasure areas of the brain were activated when subjects they felt deserved punishment were subjected to electric shocks.<sup>290</sup> The phenomenon of people finding pleasure in the misfortune of others, the social comparison of feeling superior, is known as *schadenfreude*.<sup>291</sup> This phenomenon established the importance of diversity in leadership of all organizations.

Innovative lawyer leaders understand the importance of NQ in creating modern organizations and equitable social policy. To leverage their own NQ, lawyer leaders must develop their own mental strength.

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282. See HEFFERNAN, *supra* note 192, at 303, 306 (suggesting that those in authority positions do not seek to challenge the structures that were in place when they gained those leadership positions).

283. SWART ET AL., *supra* note 39, at 9, 12, 155–56.

284. *Id.* at 12.

285. EAGLEMAN, *supra* note 116, at 137.

286. *Id.* at 143.

287. *Id.* at 137–44.

288. BRANN, *supra* note 42, at 183–84; SWART ET AL., *supra* note 39, at 139.

289. BRANN, *supra* note 42, at 183–84.

290. *Id.* at 184.

291. *Id.* at 183.

## IX. INTERVENTIONS TO STRENGTHEN THE MIND

*“We focus on the days, making short-term decisions, instead of being cognizant of the years. We ignore the benefits that short-term pain can have in earning us long-term satisfaction. Which means that we often fail to invest, embracing a shortcut instead.”*<sup>292</sup>

Lawyers are trained in a zero-sum, competitive learning environment in law school and many of them work in cutthroat dog-eat-dog employment cultures. “[C]ompetitive mindsets have been linked to stress, anxiety, and depression.”<sup>293</sup>

Well-being, sometimes referred to by both scientists and journalists as happiness, can be enhanced by skills that can be learned.<sup>294</sup> Yale professor Laurie Santos synthesized psychology research to develop Yale’s most popular undergraduate course, The Science of Well-Being, which has been taken by one in four students since its inception.<sup>295</sup> Professor Santos hopes the course will help students manage stress and unhappiness that can occur during college.<sup>296</sup> The course teaches students how to replace bad habits with good ones, such as learning about and leveraging their strengths, investing in experiences rather than possessions, savoring experiences, and expressing gratitude and kindness.<sup>297</sup>

In addition to the brain strengthening skills, such as adequate sleep to empower memory consolidation and sufficient exercise to maintain brain resources and protect against the damage of stress, lawyers can learn well-being skills to increase their happiness and to decrease stress, anxiety, and depression.<sup>298</sup>

The Religious Orders Study has collected physical, psychological, and cognitive data from over 1100 nuns and priests every year since

292. Seth Godin, *Lessons for Telling Time*, SETH’S BLOG (Feb. 26, 2019), <https://seths.blog/2019/02/lessons-for-telling-time/> (“We rehearse the past, obsessing about sunk costs, instead of freeing ourselves up to make new decisions based on new information. We put a stopwatch on our best experiences, ticktocking the moments instead of living in them. But we fail to be honest about the time when we’re in a dip, or unhappy, imagining instead that it is lasting forever. We confuse the thrill of fast-paced media with the magic of doing work that matters, even though they each take just as long. We might have a fancy watch, but that doesn’t mean we’re good at telling time.”).

293. *A Simple Strategy to Improve your Mood in 12 Minutes: Journal of Happiness Studies*, NEUROSCIENCE NEWS (Mar. 28, 2019), <https://neurosciencenews.com/psychology-strategy-improve-mood-happiness-10944/> (discussing the study, published in the *Journal of Happiness Studies*, conducted by researchers at Iowa State University).

294. Justin Maiman, *I’m Taking Yale’s Class on Happiness – and Halfway Through, These 4 Tricks are Already Working*, BUS. INSIDER (Mar. 27, 2019, 12:22 PM), <https://www.businessinsider.com/im-taking-yales-class-on-happiness-already-working-2019-3>.

295. *Id.*; *The Science of Well-being*, YALE COURSERA, <https://www.coursera.org/learn/the-science-of-well-being> (last visited Oct. 18, 2019).

296. Maiman, *supra* note 294.

297. *Id.*

298. MEDINA, *supra* note 12, at 31, 51–52, 68, 154.

1994.<sup>299</sup> The scientists have also collected and preserved over 350 of the participant's brains, in order to investigate Alzheimer's and Parkinson's diseases.<sup>300</sup> This study is able to reduce the variables found in wider society because these are stable populations of participants with very similar lifestyles.<sup>301</sup> The researchers made a very interesting discovery: it was possible for some participants to die with full-blown Alzheimer's disease without suffering from cognitive decline.<sup>302</sup> The factors that protected cognitive capacity included intellectual pursuits like reading, learning new skills, and working on puzzles; keeping busy with purpose and responsibility; social connections; and physical exercise.<sup>303</sup> Undesirable psychological factors such as stress, anxiety, depression, and loneliness led to greater cognitive deterioration.<sup>304</sup>

Learning well-being skills can enhance a lawyer's happiness, but evidence suggests a lawyer's performance can also be improved. Research on large populations of middle school, high school, and college students has shown that teaching well-being skills improves academic achievement.<sup>305</sup> Enhancing self-control improves student study habits, homework submission, and grades, and it leads to better adult education attainment, health, and wealth.<sup>306</sup> Exhibiting grit, the capacity to persevere while pursuing long-term goals, predicts retention in elite academic military programs and grades at top universities.<sup>307</sup> Self-discipline is better than IQ at predicting long-term academic success, and a meta-analysis of 213 studies revealed that students who received social and emotional training scored over 11% higher on achievement tests than their untrained peers.<sup>308</sup> Other research demonstrated that teaching students skills to increase their well-being, such as communication, mindfulness, emotional regulation, decision-making, and critical thinking, enhanced student performance on standardized tests.<sup>309</sup>

The academic research suggests that teaching well-being skills to law students is likely to improve scores on final exams and the bar exam, in addition to improving law student well-being. Training

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299. EAGLEMAN, *supra* note 116, at 29–30.

300. *Id.* at 30.

301. *Id.* at 29.

302. *Id.* at 30.

303. *Id.*

304. *Id.* at 31.

305. *Building a Positive Institution*, in EVIDENCE BASED APPROACHES IN POSITIVE EDUCATION: IMPLEMENTING A STRATEGIC FRAMEWORK FOR WELL-BEING IN SCHOOLS 8 (Matthew A. White et al. eds., 2015); Alejandro Adler & Martin E. P. Seligman, *Using Wellbeing for Public Policy: Theory, Measurement, and Recommendations*, 6 INT'L J. WELLBEING 1, 16–17 (2016).

306. *Building a Positive Institution*, *supra* note 305, at 8.

307. *Id.*

308. *Id.*

309. Adler & Seligman, *supra* note 305, at 17.



lawyers in how to enhance their well-being is likely to improve it, along with their work performance.

People with mental strength do not just practice healthy habits, they refuse to indulge in counterproductive unhealthy habits.<sup>310</sup> There are three components to mental strength:

- Thoughts: the words that jangle in your head. Aim for pragmatic self-talk. Negative inner monologue is self-defeating, yet unrealistic optimism can lead to a lack of preparedness.
- Feelings: the way you experience your emotions. Enhanced mental strength will lead to greater self-control.
- Behavior: strive to take action that will benefit you or others, no matter the situation.<sup>311</sup>

We possess the ability to intentionally change how we respond to life's challenges, which can be reframed as opportunities to learn and build strength.<sup>312</sup> It takes twenty-one days to begin to form a new habit, but at least two months for the habit to be self-sustaining.<sup>313</sup> Habitual behavior is driven by "neural networks being reinforced through repeated use to the point where their activation is the easiest option for achieving certain goals. . . ."<sup>314</sup> New behaviors take time and effort because they require the development of new neural connections that eventually become the default chain of neurons.<sup>315</sup> This change of habit and rewiring of neural connections can be described as learning.<sup>316</sup>

The following recommendations are organized by obstacles to developing mental strength (social comparisons, perfectionism, and imposter syndrome) along with suggestions for dealing with them, followed by practices that promote mental strength (mindset and motivation, mindfulness, meditation, loving-kindness contemplation, optimism, gratitude, signature strengths, streamlining, investing in experiences, and visualization).

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310. AMY MORIN, 13 THINGS MENTALLY STRONG WOMEN DON'T DO 3 (2019).

311. *Id.* at 5.

312. ZELANA MONTMINY, 21 DAYS TO RESILIENCE: HOW TO TRANSCEND THE DAILY GRIND, DEAL WITH THE TOUGH STUFF, AND DISCOVER YOUR STRONGEST SELF 5 (2016).

313. *Id.* at 11.

314. SWART ET AL., *supra* note 39, at 112.

315. *Id.* at 113.

316. *Id.*

### A. *Obstacles to Developing Mental Strength*

#### 1. *Social Comparisons*

Competitive learning environments and work cultures can lead to comparing ourselves to others. It is possible to better understand our strengths and weaknesses when we compare our performance to that of others.<sup>317</sup> Social media has fueled social comparisons; when we review the vacations friends and colleagues are taking, parties they are hosting, or meals they are making, we often fall victim to social comparisons.<sup>318</sup> Upward social comparison is when you focus on people who appear superior to you in some way—they seem happier, healthier, or wealthier.<sup>319</sup> Upward social comparison results in jealousy and depression because it damages self-worth.<sup>320</sup> Downward social comparison involves comparing yourself to someone who is less fortunate.<sup>321</sup> While it might elevate self-worth in the short-term, ultimately it causes sympathy and worry, and social comparisons make it harder to build mental strength.<sup>322</sup>

To limit the temptation to participate in social comparison:

- Reduce consumption of social media. It paints a small picture of another person's life and is likely to cause you to feel bad about yourself.<sup>323</sup>
- Appreciate that what people display on the outside is likely very different than what they are feeling on the inside. "Everyone is going through something you can't see," stated Kevin Love, basketball player for the Cleveland Cavaliers, in his article about his panic attack during a game and the steps he took to improve his mental health.<sup>324</sup> Social comparison involves exaggerated thinking, so remember that and reframe your thinking to be realistic about the experience of others.<sup>325</sup>
- Acknowledge that there will always be others who have more than you and that it may make you uncomfortable. Own your sadness or jealousy, because acceptance will help you move past it and on to your goals.<sup>326</sup>

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317. MORIN, *supra* note 310, at 13.

318. *Id.* at 14.

319. *Id.* at 15.

320. *Id.* at 16.

321. *Id.*

322. *Id.*

323. *Id.* at 18–19.

324. Kevin Love, *Everyone is Going Through Something*, PLAYERS' TRIB. (Mar. 6, 2018), <https://www.theplayertribune.com/en-us/articles/kevin-love-everyone-is-going-through-something>.

325. MORIN, *supra* note 310, at 17–20; *see also* Love, *supra* note 324.

326. MORIN, *supra* note 310, at 19, 29.

- Resist being judgmental and sorting people into categories such as good or bad, or better or worse. Judgmental language includes thinking of things you wish for, thinking about what you should or shouldn't do, and thinking of others with descriptors that end in "-er," such as smarter or thinner. Reframe comparison language into facts and opinions.<sup>327</sup>
- View people you admire as role models, not competitors. Reframe your mindset to consider what kind of expertise you can develop or what can be learned from the person.<sup>328</sup>

## 2. *Perfectionism*

Perfectionists suffer from having unrealistic expectations of themselves or aiming to meet the idealistic standards of others.<sup>329</sup> Factors that can cause perfectionism include genetics; a history of receiving praise for outcomes (grades or sports statistics) rather than work ethic; a need for acceptance; the overemphasis on the trappings of success (money and fame); and childhood trauma where stellar performance or complete control helped limit abuse.<sup>330</sup>

There are significant health risks of perfectionism, such as mental health problems, disease, early death, and suicide.<sup>331</sup> Other drawbacks for perfectionists are self-defeating behavior, such as procrastination; self-sabotage, such as bingeing; and avoidance coping that is used to dodge activities where one might fail.<sup>332</sup> Being a perfectionist can limit success due to burnout—a 2017 study of college students revealed that perfectionists were less engaged, had poorer self-regulation, and achieved less than other students.<sup>333</sup>

Perfectionists might suffer from having a fixed mindset where they respond to challenging situations by claiming they lack the talent to deal with the problem or by limiting their efforts due to fear of failure.<sup>334</sup> People with fixed mindsets believe they have a certain degree of intelligence, and they focus on proving themselves in order to appear smart and gain acceptance.<sup>335</sup> They are caught up in confirming their aptitude and status as a winner.<sup>336</sup> They also tend to overestimate their abilities and they may respond to constructive

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327. *Id.* at 22–23, 29.

328. *Id.* at 23–24.

329. *Id.* at 33, 37.

330. *Id.* at 38.

331. *Id.* at 41–42.

332. *Id.* at 41–43.

333. *Id.* at 41.

334. CAROL S. DWECK, MINDSET: THE NEW PSYCHOLOGY OF SUCCESS 57–58, 61, 76 (2007).

335. *Id.* at 6.

336. *Id.* at 6, 16.

feedback as an attack on key aspects of their identity.<sup>337</sup> “The fixed mindset limits achievement. It fills people’s minds with interfering thoughts, it makes effort disagreeable, and it leads to inferior learning strategies. What’s more, it makes other people into judges instead of allies.”<sup>338</sup>

People with a growth mindset believe they can improve their aptitude and character with practice and experience.<sup>339</sup> These people seek challenges that allow them to learn and grow, and they focus on steady development.<sup>340</sup> People with a growth mindset take responsibility for their motivation; they identify goals, create plans, develop strategies, work hard, and persist through obstacles.<sup>341</sup> They view feedback as a benefit that helps them achieve a goal.<sup>342</sup> “People who accomplish the most are more likely to take risks, learn from their mistakes, and accept that failure is part of the process.”<sup>343</sup>

If you have perfectionist tendencies, it might help to own your imperfections and to practice self-kindness.<sup>344</sup> Flaws make us unique and give us character, and it can help to make a list of our strengths, but also to accept our imperfections and remember that everyone has flaws.<sup>345</sup> Minimize negative self-talk and learn to practice self-compassion, which includes learning from mistakes, forgiving yourself, accepting that mistakes are part of the journey, and understanding that you can recover from a failure.<sup>346</sup>

### 3. *Imposter Syndrome*

People with imposter syndrome feel unworthy of a position or promotion because they doubt their competence or expertise.<sup>347</sup> They lack confidence and suffer from self-doubt, and they may attribute success to luck rather than expertise and hard work.<sup>348</sup> Struggling with self-doubt saps the mental strength required to reach our goals.<sup>349</sup> Self-doubt can also lead to low self-esteem and an increase in anxiety and depression.<sup>350</sup>

Self-doubt can lead to a cycle of negative thoughts, bad feelings, and adverse behavior that can cause mistakes and become a self-

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337. *Id.* at 11.

338. *Id.* at 67.

339. *Id.* at 7.

340. *Id.*

341. *Id.* at 61, 80–81.

342. *Id.* at 76–77.

343. MORIN, *supra* note 310, at 42.

344. *Id.* at 45–52.

345. *Id.* at 45–46.

346. *Id.* at 46–47, 51.

347. SWART ET AL., *supra* note 39, at 206.

348. *Id.*

349. MORIN, *supra* note 310, at 77.

350. *Id.* at 82.

fulfilling prophecy.<sup>351</sup> Thoughts and emotions influence each other.<sup>352</sup> Worrying can trigger anxiety and fear, and anxiety and sadness over one aspect of life can lead to self-doubt, even in other areas of life.<sup>353</sup>

Developing a greater awareness of your emotions can help process the experience of self-doubt.<sup>354</sup> If you label your emotion, you might realize that anxiety might cause you to underestimate your abilities or overestimate how difficult an experience might be.<sup>355</sup>

Another method for determining the accuracy of your self-doubt is to consider the facts by listing the evidence that an experience will have a particular outcome.<sup>356</sup> Create a chart with two columns and list the evidence of one outcome on one side and the evidence of the other outcome on the other side.<sup>357</sup> Reviewing the list can help you determine whether you should change the way you are thinking or behaving because it demonstrates that there is evidence you can succeed, despite your feeling that failure is more likely.<sup>358</sup>

Another tactic for dealing with self-doubt is to consider the worst-case scenario of the outcome.<sup>359</sup> Once you have admitted to yourself that you can handle some rejection, embarrassment, or failure, the emotional turmoil of the self-doubt is likely more painful than the worst-case scenario you have been fearing.<sup>360</sup>

In addition to learning to deal with obstacles to developing mental strength, one should practice a number of well-being skills that help promote mental strength: mindset and motivation, mindfulness, meditation, loving-kindness contemplation, optimism, gratitude, signature strengths, streamlining, investing in experiences, and visualization.

## B. Practices that Promote Mental Strength

### 1. Mindset and Motivation

Research reveals that people with a growth mindset outperform people with a fixed mindset.<sup>361</sup> Lawyers and law students with NQ understand that the concept of growth mindset is supported by the brain superpower neuroplasticity, the capacity of the brain to rewire itself with each thought, action, and experience.<sup>362</sup> People with a growth mindset understand that abilities are malleable and can be

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351. *Id.* at 83–84.

352. *Id.* at 85.

353. *Id.* at 85–86.

354. *Id.* at 86.

355. *Id.*

356. *Id.* at 87.

357. *Id.*

358. *Id.* at 87–88.

359. *Id.* at 89.

360. *Id.* at 90.

361. DWECK, *supra* note 334, at 61.

362. CARTER, *supra* note 9, at 197; MEDINA, *supra* note 12, at 86–87.

improved with practice and experience.<sup>363</sup> They love challenges, opportunities for growth, and feedback to enhance performance. They persevere when faced with setbacks because they believe their efforts lead to improvement.<sup>364</sup> They believe the learning process leads to a performance upgrade.<sup>365</sup>

Leaders should move their constituents away from fixed mindset thinking because it minimizes innovation when students or employees are afraid to make mistakes, and they believe failure leads to shame and pain.<sup>366</sup> Leaders with a focus on growth mindset cultivate an environment where experiment and failure are stimulating, and the only thing to fear is missed opportunity.<sup>367</sup>

A key to motivation is to determine what is important to people, and it usually involves autonomy, purpose, and mastery.<sup>368</sup> People with a growth mindset believe in human development, and they are focused on skill development and enhancing deficiencies.<sup>369</sup> They dissect mistakes, deploy feedback, and strategize to improve.<sup>370</sup> Growth mindset leaders are driven by a commitment to human potential—they inspire others to join their journey with humility, open communication, inclusivity, and teamwork.<sup>371</sup>

## 2. *Mindfulness*

Mindfulness is “being aware of the present moment without judgment or preference.”<sup>372</sup> Rather than worrying about the future or fretting about the past, mindfulness is about fully engaging with and being present in life.<sup>373</sup> Mindfulness helps us notice our habits of mind, access our sense of inner calm, and resist labeling experiences as positive or negative.<sup>374</sup>

One benefit of a mindfulness practice is the capacity to take a beat before responding to a frustrating situation. The Danes, some of the happiest people on the planet, have a word to remind them of this response: *pyt*, which is pronounced *pid*.<sup>375</sup> This word is uttered to

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363. DWECK, *supra* note 334, at 7.

364. *Id.* at 11–12, 15.

365. *Id.* at 15.

366. SWART ET AL., *supra* note 39, at 25.

367. *Id.*

368. BRANN, *supra* note 42, at 180.

369. DWECK, *supra* note 334, at 110.

370. *Id.* at 110–11.

371. *Id.* at 125–29.

372. JEENA CHO & KAREN GIFFORD, *THE ANXIOUS LAWYER: AN 8-WEEK GUIDE TO A JOYFUL AND SATISFYING LAW PRACTICE THROUGH MINDFULNESS AND MEDICATION* 62 (2016).

373. *Id.* at 63.

374. *Id.*

375. Marie Helweg-Larsen, *This Untranslatable Danish Word is the Key to Lowering Stress*, MSN (Mar. 1, 2019), <https://www.msn.com/en-us/health/wellness/this-untranslatable-danish-word-is-the-key-to-lowering-stress/ar-BBUgTAz>.

remind Danes to let it go and move on, and that a greater response to an irritating event is unnecessary.<sup>376</sup> Danish school children are taught *pyt* to handle small frustrations; this develops skills to help them avoid perfectionism, which can lead to anxiety and depression.<sup>377</sup> Danes can even purchase *pyt* buttons to remind them to pause a moment, take a deep breath, and remember that things are really alright.<sup>378</sup> To enhance this practice, Disney fans might remember Elsa's powerful anthem from *Frozen*: "Let it go . . . the past is in the past . . . the cold never bothered me anyway."<sup>379</sup>

### 3. Meditation

A meditation practice can enhance mindfulness, the capacity to connect with what is happening in the current moment.<sup>380</sup> Meditation involves sitting quietly and focusing on the breath, noticing if your mind wanders, and gently returning your attention to your breathing.<sup>381</sup>

If you are feeling some anxiety and need a quick way to induce calm, you can try a "two-minute meditation" that can be done anywhere without anyone knowing you are doing it.<sup>382</sup> There are two steps in this practice: grounding and breathing.<sup>383</sup> Grounding is noticing how your feet are connecting to the ground beneath you.<sup>384</sup> Once your attention is focused on your feet, begin to take slow, managed breaths.<sup>385</sup> One strategy is to breathe in for five beats, hold for seven beats, and exhale for nine beats.<sup>386</sup> The number of beats is not important, only that the exhale is longer than the inhale.<sup>387</sup> Slow breathing will reduce anxiety and increase calm.<sup>388</sup>

A powerful and effective resource for mindfulness and meditation, designed specifically to help law students and lawyers, is *The Anxious Lawyer: An 8-Week Guide to a Joyful and Satisfying Law Practice Through Mindfulness and Meditation* by Jeena Cho and Karen Gifford.<sup>389</sup>

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376. *Id.*

377. *Id.*

378. *Id.*

379. DisneyMusicVEVO, *Idina Menzel - Let it Go (from "Frozen")*, YOUTUBE (Dec. 17, 2013), <https://www.youtube.com/watch?v=YVVTZgwYwVo>.

380. CHO & GIFFORD, *supra* note 372, at 664–66.

381. *Id.* at 65–66.

382. Holly Van Hare, *This 2-Minute Meditation Trick can Stop Anxiety in its Tracks*, ACTIVE TIMES (July 13, 2018), <https://www.theactivetimes.com/healthy-living/lifestyle-wellness/2-minute-meditation-trick-can-stop-anxiety-its-tracks>.

383. *Id.*

384. *Id.*

385. *Id.*

386. *Id.*

387. *Id.*

388. *Id.*

389. *See* CHO & GIFFORD, *supra* note 372.

#### 4. *Loving-Kindness Contemplation*

A contemplative practice that can reduce anxiety and increase happiness is the loving-kindness technique of wishing others well.<sup>390</sup> This can be as simple as noticing others in our environment and wishing them happiness.<sup>391</sup> A more formal practice involves reflecting on the desire to be healthy, safe, and happy, and then extending that aspiration to others.<sup>392</sup> This type of meditation is intended to increase well-being but can also enhance compassion for others.<sup>393</sup> Some people extend wellness intentions to loved ones and all beings in the greater world with a ten- or fifteen-minute daily practice.<sup>394</sup>

Researchers at Iowa State University have shown that college students who walked around a building for twelve minutes and authentically wished happiness for other people they encountered “felt happier, more connected, caring and empathetic, as well as less anxious” than students who spent that time considering how they may be connected to the others or who tried a downward social comparison of thinking how they might be better off than the others.<sup>395</sup> Offering loving-kindness to others helps reduce anxiety and enhance happiness.<sup>396</sup>

#### 5. *Optimism*

Happy people enjoy a host of health benefits such as lower blood pressure and heart rate, a strengthened immune system, a reduced risk of stroke, diabetes, and heart disease, and an increased lifespan.<sup>397</sup> Author and therapist Mary Pipher believes that happiness is a choice and a skill set.<sup>398</sup> Happy people make happiness a life goal and strive to make life as good as possible.<sup>399</sup> The skills that help build a happy life include maintaining reasonable expectations, honing a sense of humor, finding meaning and purpose,

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390. NEUROSCIENCE NEWS, *supra* note 293.

391. *Id.*

392. Jack Kornfield, *A Meditation on Lovingkindness*, JACK KORNFIELD, <https://jackkornfield.com/meditation-lovingkindness/> (last visited Oct. 18, 2019).

393. *Id.*

394. *Loving-Kindness Meditation*, GREATER GOOD SCI. CTR., [https://ggia.berkeley.edu/practice/loving\\_kindness\\_meditation](https://ggia.berkeley.edu/practice/loving_kindness_meditation) (last visited Oct. 18, 2019).

395. NEUROSCIENCE NEWS, *supra* note 293.

396. *Id.*

397. Holly Van Hare, *20 Incredible Ways Happiness Affects Your Body*, DAILY MEAL (Oct. 30, 2017), <https://www.thedailymeal.com/healthy-eating/20-incredible-ways-happiness-affects-your-body-slideshow>.

398. Terry Gross, *Aging Offers Women 'Enormous Possibilities For Growth,' Says Author*, NPR (Feb. 27, 2019, 2:41 PM) <https://www.npr.org/2019/02/27/698535498/aging-offers-women-enormous-possibilities-for-growth-says-author> (interviewing Mary Pipher about her book *Women Rowing North*).

399. *Id.*



and cultivating close friendships.<sup>400</sup> Close friendships are so important to happiness, so much so that Pipher describes them as a “mental health insurance policy.”<sup>401</sup>

### 6. *Gratitude*

One way to enhance optimism is with a gratitude practice. Lawyers utilize worst case scenarios and critical thinking to identify and solve problems for clients.<sup>402</sup> “Gratitude can help us reconnect with what is good and worthwhile all around us, perhaps even remind us about the very positive values that brought us to the practice of law in the first place.”<sup>403</sup> People with gratitude practices are happier, more optimistic, and enjoy stronger relationships.<sup>404</sup>

One gratitude practice is to journal or make a list of things you are grateful for each day.<sup>405</sup> Another practice is to make a list of all the people you can count on for help, mentoring, and support, and keep it in a spot where you can review it when you are dealing with an obstacle or challenge.<sup>406</sup> This practice may increase feelings of security and empathy.<sup>407</sup> It is possible to simply reflect on what is going well, what you are grateful for, or what opportunities you enjoy to harness the power of gratitude.<sup>408</sup> In a meta-analysis of over one hundred studies, research reveals that people with a daily gratitude practice feel more alert, energetic, enthusiastic, and optimistic; sleep better; have lower blood pressure; and live an average of seven to nine years longer than people without a gratitude practice.<sup>409</sup>

### 7. *Signature Strengths*

One way to enhance well-being is to develop your talents. Research shows that people who are aware of their strengths, and can leverage them on a daily basis, experience greater happiness and less depression.<sup>410</sup> One of the most popular online strengths assessments is the *Values in Action* survey.<sup>411</sup> Individuals who take the *Values in Action* survey can obtain a character profile assessing the presence of creativity, curiosity, judgment, love-of-learning, perspective, bravery, honesty, perseverance, zest, kindness, love, social intelligence,

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400. *Id.*

401. *Id.*

402. CHO & GIFFORD, *supra* note 372, at 202.

403. *Id.* at 203.

404. *Id.*

405. SWART ET AL., *supra* note 39, at 172.

406. *Id.*

407. *Id.*

408. CHO & GIFFORD, *supra* note 372, at 211.

409. LINDA GRAHAM, BOUNCING BACK: REWIRING YOUR BRAIN FOR MAXIMUM RESILIENCE AND WELL-BEING 274 (2013).

410. Maiman, *supra* note 294.

411. *The 24 Character Strengths*, VIA INST. ON CHARACTER, <http://www.viacharacter.org/character-strengths> (last visited Oct. 18, 2019).

fairness, leadership, teamwork, forgiveness, humility, prudence, self-regulation, appreciation of beauty, gratitude, hope, humor, and spirituality.<sup>412</sup> The capacity to aggregate four of your top strengths at your job yields more positive experiences and makes it more likely that you will feel that your work is your calling.<sup>413</sup>

### 8. *Streamlining*

The Marie Kondo effect has been amplified by her Netflix show, but it began with her book on eliminating clutter to improve one's life.<sup>414</sup> When we simplify our lives by eliminating unneeded possessions and by organizing the stuff that is important to our daily functioning, we gain control and waste less time making decisions.<sup>415</sup> Having your important belongings organized neatly can be calming.<sup>416</sup> Arranging clothing by color can provide a sense of tranquility in an otherwise hectic existence.<sup>417</sup> One study indicated that women with more clutter in their homes had higher levels of the stress hormone cortisol than women with tidier homes, highlighting the connection between mess and stress.<sup>418</sup>

You can also limit decision fatigue by creating simplified processes and habits.<sup>419</sup> People can make up to 35,000 decisions per day such as their wardrobe, diet, and commute route, but you can save your brain power for the most important decisions by simplifying your life.<sup>420</sup> Some famous simplified style icons include Mark Zuckerberg, known for his gray t-shirts, and President Barack Obama, who sports only blue or gray suits.<sup>421</sup> With a simplified Marie Kondo'd wardrobe, you will always feel good about your style and you will waste less time making sartorial choices.<sup>422</sup> It is worth

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412. *Id.*

413. Maiman, *supra* note 294.

414. See generally MARIE KONDO, *THE LIFE-CHANGING MAGIC OF TIDYING UP: THE JAPANESE ART OF DECLUTTERING AND ORGANIZING* (2014) (detailing a process of how one can declutter their home using the concept of what "sparks joy"); *Tidying Up with Marie Kondo* (Netflix 2019) (implementing the concepts from the book into action in a Netflix reality TV show).

415. Andrea Barbalich, *I Marie Kondo'd My Life After Divorce – And It Was the Best Decision I Ever Made*, MSN (Mar. 28, 2019), <https://www.msn.com/en-us/lifestyle/voices/i-marie-kondod-my-life-after-divorce—and-it-was-the-best-decision-i-ever-made/ar-BBVjHXB>.

416. *Id.*

417. *Id.*

418. Jamie Feldman, *I Got Rid of Half My Wardrobe Using Marie Kondo's Methods. Here's What I Learned*, MSN (Jan. 9, 2019), <https://www.msn.com/en-us/lifestyle/voices/i-got-rid-of-half-my-wardrobe-using-marie-kondos-methods-heres-what-i-learned/ar-BBS23RE>.

419. Craig Bloem, *Why Successful People Wear the Same Thing Every Day*, INC. (Feb. 20, 2018), <https://www.inc.com/craig-bloem/this-1-unusual-habit-helped-make-mark-zuckerberg-steve-jobs-dr-dre-successful.html>.

420. *Id.*

421. *Id.*

422. Barbalich, *supra* note 415; Bloem, *supra* note 419.

considering what aspects of your life can be Marie Kondo'd to make your life easier, free up your brain power, and limit your activities to those that bring you joy.

### 9. *Investing in Experiences*

Research shows that investing in doing things, rather than owning things, creates greater happiness.<sup>423</sup> Experiences such as sporting events, concerts, trips, time spent with family, or soaking up the benefits of nature, are a more valuable use of time and resources if you are trying to increase your well-being.<sup>424</sup> The happiness value of material possessions depreciate immediately, while investments in experiences create anticipation and memories, and the novelty of new experiences always stimulates the brain.<sup>425</sup>

### 10. *Visualization*

Finally, a practice that leverages the brain's neuroplasticity is visualization, where you use your imagination to think about who you want to become or what you hope to accomplish.<sup>426</sup> The brain cannot distinguish between a vision of your future and a memory.<sup>427</sup> When you envision your objectives, your brain works with you to make it a reality.<sup>428</sup>

Start a visualization practice with the following guiding questions:

- “What is my unique talent?
- Who will benefit?
- What is my passion?
- What is my higher calling?
- What are my goals?”<sup>429</sup>

Then mentally walk through a visualization of all the steps you will take to accomplish the goal that is top of mind.<sup>430</sup> For example, athletes might imagine the stadium, field conditions, fans, and

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423. Maiman, *supra* note 294.

424. *Id.*

425. *Id.*

426. Deepak Chopra & Kabir Sehgal, *Do This for 5 Minutes Every Day to Rewire Your Brain for Success, According to Neuroscience*, CNBC: MAKE IT (Apr. 5, 2019, 9:15 AM), <https://www.cnbc.com/2019/04/03/deepak-chopra-sanjay-gupta-simple-trick-to-training-your-brain-for-success-according-to-neuroscience.html>.

427. *Id.*

428. *Id.*

429. *Id.*

430. *Id.*

opposing team.<sup>431</sup> A lawyer might conceptualize a courthouse, a courtroom, a jury, and a judge prior to a demanding hearing.<sup>432</sup> When you have the movie of achieving a goal in mind, you can pair the vision with the event.<sup>433</sup> Visualization is a practice that can leverage the windmills of your mind.

## X. CONCLUSION

This Article proposes that law students, legal educators, and lawyer-leaders will benefit from developing an understanding of NQ, the impact of emotion and stress on performance, and the power of building mental strength.

Understanding the links between stress, health, and performance is not enough; we need to show how the links between personal benefit and organizational benefit can be proactively influenced to deliver sustainable change, to create healthy environments and enable people to learn to develop resilience, flexibility, and adaptability, so that fewer remedial interventions are needed. To have an ultimately scientific approach to leadership and management, organizations need to take into account the importance of health, well-being, and physicality, as well as motivation, engagement, innovation, and skills to their bottom line.<sup>434</sup>

Lawyers hold leadership positions in all aspects of society. They shape policy and guide organizations. When lawyer-leaders understand the power of the neurobiology of emotion, individuals can improve well-being and performance, and organizations can leverage healthy human beings to enhance capacity and innovation.

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431. *Id.*

432. *Id.*

433. *Id.*

434. SWART ET AL., *supra* note 39, at 172.