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EMOTION REGULATION FOR LAWYERS: A MIND IS A CHALLENGING THING TO TAME

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I. INTRODUCTION

Legal scholars have become increasingly concerned about the outlook of the legal profession in the last decade. Not only is the law considered one of the unhappiest professions,¹ but lately it is also more challenging than ever to find quality work for good pay within the field.² Fewer of the brightest young minds are interested in a legal career given the current employment climate and the increasing price tag for a legal education. This leaves law schools and the legal profession as a whole acutely concerned about lawyer wellbeing and performance. These two key outcome measures, wellbeing and performance, are intricately connected for lawyers and are a growing focus of law schools and firms. The legal profession is incorporating training in Emotional Intelligence (EI) and Emotion Regulation (ER) strategies as a framework for developing intra-personal and interpersonal skills, to improve the wellbeing crisis and equip law students and lawyers with the necessary tools to manage their careers as savvy, sustainable professionals.³

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¹ See William W. Eaton et al., *Occupations and the Prevalence of Major Depressive Disorder*, 32 J. OCCUPATIONAL MED. 1079, 1079–87 (1990).

² See Press Release, Judith Collins & James Leipold, *Employment Rate for New Law School Graduates Rises by More Than Two Percentage Points—But Overall Number of Jobs Falls as the Size of the Graduating Class Shrinks 1* (July 30, 2015), <https://perma.cc/DZ69-G6GX>.

³ Professor of Law, William S. Blatt, has taught an EI course at Miami University for three credits since 2007. Rob Durr and Clifford Zimmerman of Northwestern University have offered an EI course the past two years called Professional Responsibility, Leadership and Lawyering Success for either two or three credits. Some schools, including New York University, the University of Chicago, Texas Tech, Missouri, Georgetown, and Pacific McGeorge, among others, have offered mindfulness, leadership, and other EI-related two-credit or noncredit EI courses. For more on the EI course at Miami, see William S. Blatt, *Teaching Emotional Intelligence to Law Students: Three Keys*

The inclusion of EI training in the law school curriculum may seem oppositional to traditional legal education where the focus has been on *thinking like* a lawyer not *feeling like* a lawyer. Mentioning *emotion* in most law circles will cause a deafening silence to befall the room. Yet, several disciplines in the social and biological sciences are producing gold standard research outcomes evidencing the critical role emotions play in performance,⁴ health,⁵ and overall success.⁶ Research shows the potent role emotions play in law schools and the legal process.⁷ Modern psychology teaches us that emotions help professionals focus, make decisions, enhance memory, provide vital social cues, and embrace change.⁸

Law schools are decades behind business schools and years behind medical education in expanding both the criteria for admission and curriculum to include emotional and social competencies. For instance, business schools have been assessing EI in the admission process for years.⁹ The MIT Sloan School of Management, for instance, has been using a four-zone grid competency model in their application process since 2000 to screen for EI. The University of South Florida's Morsani College of Medicine has their medical students participate in an EI-based leadership development program called SELECT.¹⁰ As for business schools, M.B.A. students at Emory's Goizueta Business School can take a course

to *Mastery*, 15 NEVADA L.J. 464 (2015), where Blatt briefly describes the course and some exercises used. Several other schools offer leadership training with some component of EI. For instance, Harvard Law School's Executive Education Program offers three leadership programs and each has an emphasis on leading people. The Leadership in Law Firms (LLF) program lists "[d]eveloping and motivating people" and "[b]uilding self-awareness of your leadership style and strengths" among the program focuses; both are core aspects of EI. See *Leadership Programs*, HARV. L. SCH., <https://perma.cc/WUW9-99X7>.

⁴ See Dana L. Joseph et al., *Why Does Self-Reported Emotional Intelligence Predict Job Performance? A Meta-Analytic Investigation of Mixed EI*, 100 J. APPLIED PSYCHOL. 309 (2015).

⁵ See Nicola S. Schutte et al., *A Meta-Analytic Investigation of the Relationship Between Emotional Intelligence and Health*, 42 PERSONALITY & INDIVIDUAL DIFFERENCES 927 (2007).

⁶ See Emily Amdurer et al., *Long Term Impact of Emotional, Social and Cognitive Intelligence Competencies and GMAT on Career and Life Satisfaction and Career Success*, 5 FRONTIERS IN PSYCHOL. 1447 (2014).

⁷ See Kihwan Kim et al., *Emotional Intelligence and Negotiation Outcomes: Mediating Effects of Rapport, Negotiation Strategy, and Judgment Accuracy*, 24 GROUP DECISION & NEGOTIATION 487 (2015).

⁸ See Richard D. Lane et al., *Neural Correlates of Levels of Emotional Awareness: Evidence of an Interaction Between Emotion and Attention in the Anterior Cingulate Cortex*, 10 J. COGNITIVE NEUROSCIENCE 529 (1999).

⁹ See Melissa Korn, *B-Schools Know How You Think, but How Do You Feel?*, WALL STREET J. (May 1, 2013 7:39 PM), <http://www.wsj.com/articles/SB10001424127887324582004578456770420379666>.

¹⁰ See Alicia D. H. Monroe & Allea English, *Fostering Emotional Intelligence in Medical Training: The SELECT Program*, 15 VIRTUAL MENTOR 510 (2013).

offered the second year titled, “Leading with Emotional Intelligence,” where students learn the core competencies of EI.¹¹ Similarly, law schools have started to consider EI resilience in their curriculum.¹²

Law firms want practice-ready graduates.¹³ Despite the unprecedented growth of practical skills courses¹⁴ in law schools across the country and a robust body of literature highlighting the predictive validity of EI for several key outcomes—such as health and performance—an alarming deficit in focus on emotion in legal education and scholarship persists. The purpose of this article is to begin to fill the gap by diving deeper into one of the essential skills of EI and ER. In this article we provide an overview of EI, summarize key research discoveries, provide a brief history of EI, and define ER and emotion in Part II.¹⁵ Then, in Part III, we describe the brain structure and the neurological underpinnings of ER.¹⁶ Finally, in Part IV we conclude by discussing ER, and introducing empirically-supported strategies for ER.¹⁷

II. DEFINING EMOTIONAL INTELLIGENCE AND ITS IMPACT ON LAWYERS

EI is defined as our “*capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and our relationships.*”¹⁸ It is a significant force behind professional success.¹⁹ People with high EI are thought to be able to understand and express themselves, “*understand others and relate with them, and cope with daily demands*” better than those with a lower EI.²⁰ But how does this specifically relate to the practice of law?

¹¹ *Leading with Emotional Intelligence*, EMORY GOIZUETA BUS. SCH., <https://perma.cc/H6S6-57L8>.

¹² See Susan Swaim Daicoff, *Expanding the Lawyer’s Toolkit of Skills and Competencies: Synthesizing Leadership, Professionalism, Emotional Intelligence, Conflict Resolution, and Comprehensive Law*, 52 SANTA CLARA L. REV. 795, 813 (2012). See generally Gretchen Duhaime, *Practicing on Purpose: Promoting Personal Wellness and Professional Values in Legal Education*, 28 TOURO L. REV. 1207 (2012).

¹³ See Jack Silverstein, *Law School Clinics Matter, but How Much?*, CHICAGO DAILY L. BULL. (Apr. 26, 2015), <https://perma.cc/B5RB-78UH>.

¹⁴ Branden Frankel, *Curriculum Matters: My Talk with a Law School Dean*, MOST STRONGLY SUPPORTED (Sept. 16, 2014, 6:00 PM), <https://perma.cc/5ECN-ULHE>.

¹⁵ See *infra* Part II.

¹⁶ See *infra* Part III.

¹⁷ See *infra* Part IV.

¹⁸ DANIEL GOLEMAN, *WORKING WITH EMOTIONAL INTELLIGENCE* 317 (1998).

¹⁹ See Ernest H O’Boyle, Jr. et al., *The Relation Between Emotional Intelligence and Job Performance: A Meta-Analysis*, 32 J. ORGANIZATIONAL BEHAV. 788, 797 (2011).

²⁰ Reuven Bar-On, *The BarOn Model of Social and Emotional Intelligence (ESI)*, 18 PSICOTHEMA 13, 14, (2006).

EI in the law is of primary importance for several reasons. EI has been found to be as important, if not more so, than IQ for academic and job performance;²¹ EI is essential in leadership;²² many tasks required of lawyers entail EI competencies (e.g., negotiation);²³ and EI skills may improve the mental health crisis among legal professionals.²⁴ Greater rates of EI lead to increased happiness, life satisfaction, and wellbeing rates, and, therefore, are thought to decrease lawyer burnout.²⁵ Unlike IQ, which does not change significantly over a lifetime and is only thought to account for about twenty-five percent of overall success,²⁶ EI evolves and increases with one's desire to learn and grow.²⁷ EI skills can also be taught and developed.²⁸ The time for EI training in the legal field is ripe because the scientific understandings of emotion, and emotional and social intelligence, has arrived. The academic literature in neuroscience and psychology offers several key insights that could boost performance in the legal field.

There is a large and growing body of empirical literature linking EI to several key performance and wellbeing outcomes. A recent meta-analysis²⁹ of eighteen studies reported correlations in the 0.30 range³⁰ between EI scores and assessments

²¹ See David L. Van Rooy & Chockalingam Viswesvaran, *Emotional Intelligence: A Meta-Analytic Investigation of Predictive Validity and Nomological Net*, 65 J. VOCATIONAL BEHAV. 71, 81 (2004).

²² See Nicholas Clarke, *Emotional Intelligence and Learning in Teams*, 22 J. WORKPLACE LEARNING 125, 125–45 (2010).

²³ See Kimberly Leary et al., *Negotiating with Emotion*, HARV. BUS. REV. 100 (2013), <https://perma.cc/BQ29-6JH9>; Kihwan Kim et al., *The Influence of Emotional Intelligence on Negotiation Outcomes and the Mediating Effect of Rapport: A Structural Equation Modeling Approach*, 30 NEGOTIATION J. 49, 55, 63 (2014).

²⁴ See Sarah K. Davis & Nei Humphrey, *Ability Versus Trait Emotional Intelligence: Dual Influences on Adolescent Psychological Adaptation*, 35 J. INDIVIDUAL DIFFERENCES 54, 57 (2014).

²⁵ See Reuven Bar-On, *The Impact of Emotional Intelligence on Subjective Well-Being*, 23 PERSPECTIVES IN EDUC. 1, 1–22 (2005).

²⁶ See John E. Hunter & Ronda F. Hunter, *Validity and Utility of Alternative Predictors of Job Performance*, 96 PSYCHOL. BULL. 72, 72–98 (1984).

²⁷ See Ioannis Tsaousis & Smaragda Kazi, *Factorial Invariance and Latent Mean Differences of Scores on Trait Emotional Intelligence Across Gender and Age*, 54 PERSONALITY & INDIVIDUAL DIFFERENCES 163, 172 (2013).

²⁸ See Rooy & Viswesvaran, *supra* note 21; see also Kathryn Thory, *Teaching Managers to Regulate Their Emotions Better: Insights from Emotional Intelligence Training and Work-Based Application*, 16 HUM. RESOURCE DEV. INT'L 4, 14 (2013).

²⁹ A meta-analysis is a statistical technique for combining the findings from several studies.

³⁰ A correlation is a simple statistic that explains whether there is a relationship or association between any two variables, in this case EI and IQ. Correlations are either positive (linear) or negative (inverse) indicating the nature of the relationship. Correlations tell us the strength of the relationship. For instance, since this is a positive 0.30 it suggests that as EI increases so too does visual and spatial intelligence. Had it been -0.30 it would suggest that as EI increases, cognitive abilities decrease. The number always ranges from zero to one with one being the strongest relationship and zero meaning no relationship. In this case, a 0.30 suggests there is a positive linear relationship between measures of EI and cognitive intelligence. In social science research, 0.30 is considered

of verbal and spatial intelligence.³¹ EI has also been found to be positively associated with psychological health³² and to reduce stress levels.³³ Another 2011 meta-analysis focused on the impact of individual EI on workplace performance.³⁴ Seventy-five studies, which included a total of eighty-seven independent samples and 12,882 participants, met the criteria for inclusion in the meta-analysis. The overall results showed a moderately strong correlation between individual EI and workplace performance ($r = 0.28$).³⁵

In another recent study on EI among law students specifically, EI significantly related to psychological health and performance in law students.³⁶ This research showed that EI appears to operate as a significant factor in protecting lawyers from burnout and job dissatisfaction.³⁷ EI is increasingly important for those in higher-level positions as it “accounts for [eighty-five] to [ninety] percent of the success of organizational leaders.”³⁸ Law students and practicing attorneys are well known for having above average levels of IQ, but lawyers tend score below average in measures of EI,³⁹ which is troubling in a profession dedicated to client advocacy.

A. *Brief History of EI*

Studying intelligence has been a cornerstone of psychology since its inception.⁴⁰ The primary research emphasis for most of the past century has been on cognitive-based practices such as memory and problem-solving.⁴¹ Little to no work was done on the role of social and emotional competence in intelligent

a “moderate” correlation in terms of strength. Correlation coefficients reflect the tendency of the variables to “co-vary”; that is, for changes in the value of one variable to be associated with changes in the value of the other.

³¹ See Rooy & Viswesvaran, *supra* note 21, at 81.

³² See Schutte et al., *supra* note 5, at 928.

³³ See Elizabeth J. Austin et al., *Emotional Intelligence, Coping and Exam-Related Stress in Canadian Undergraduate Students*, 62 AUSTRALIAN J. PSYCHOL. 47 (2010).

³⁴ See Hui-Hua Zhang & Hui Wang, *A Meta-Analysis of the Relationship Between Individual Emotional Intelligence and Workplace Performance*, 43 ACTA PSYCHOLOGICA SINICA 188, 195 (2011).

³⁵ *Id.*

³⁶ See Schutte et al., *supra* note 5, at 921–33.

³⁷ *Id.*

³⁸ Warren Bennis, *Foreword* to THE EMOTIONALLY INTELLIGENT WORKPLACE: HOW TO SELECT FOR, MEASURE, AND IMPROVE EMOTIONAL INTELLIGENCE IN INDIVIDUALS, GROUPS, AND ORGANIZATIONS, at xi (Cary Cherniss & Daniel Goleman eds., 2001).

³⁹ See generally Ronda Muir, *Emotional Intelligence for Lawyer*, <https://perma.cc/JY5C-982T>.

⁴⁰ See David Wechsler, *Non-Intellectual Factors in General Intelligence*, 38 J. ABNORMAL & SOCIAL PSYCHOL. 101, 103 (1943); HOWARD GARDNER, *FRAMES OF MIND: THE THEORY OF MULTIPLE INTELLIGENCES* 5 (1st ed. 1983).

⁴¹ See Wechsler, *supra* note 40, at 103.

behavior for a majority of the twentieth century. With the exception of very few scholars,⁴² most work on understanding the determinants of success was focused on IQ. David Wechsler—of the Wechsler Adult Intelligence Scale (WAIS), one of the most commonly employed IQ assessments in psychological evaluations—defined intelligence as, “[t]he aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment.”⁴³ Wechsler frequently noted the role of “non-intellective” as well as “intellective” elements of intelligence, referring to affective, personal, and social competencies.⁴⁴ He was one of the first scholars to propose that “non-intellective” abilities are distinguishing characteristics of success that must be considered in understanding intelligent behavior.⁴⁵

It was not until 1983 when Howard Gardner revived an interest in the “non-intellective” aspects of intelligence by developing the theory of “multiple intelligence.”⁴⁶ In his book, *Frames of Mind: The Theory of Multiple Intelligences*, Gardner broadened the definition of intelligence to include eight unique aspects.⁴⁷ Two of the fundamental aspects of the theory are *interpersonal intelligence* (the capacity to understand the intentions, motivations, and desires of other people) and *intrapersonal intelligence* (the capacity to understand oneself, to appreciate one’s feelings, fears, and motivations), both of which now make up the core of EI models.⁴⁸

These early researchers set the stage for the explosion in research and theory that has taken place in psychological research over the past thirty years. Currently some of the greatest minds in psychology and neuroscience are investigating how to define EI.⁴⁹ As a result, there are several competing conceptualizations and frameworks. The *Encyclopedia of Applied Psychology*⁵⁰ suggests there are three major conceptual models which still hold true today: (1) the Salovey-Mayer model (perceive, understand, manage, and use emotions to facilitate thinking);⁵¹

⁴² See *id.*

⁴³ DAVID WECHSLER, *THE MEASUREMENT OF ADULT INTELLIGENCE* 3 (3d ed. 1944).

⁴⁴ See Wechsler, *supra* note 40, at 103.

⁴⁵ *Id.*

⁴⁶ See GARDNER, *supra* note 40, at 5.

⁴⁷ *Id.* at 251.

⁴⁸ *Id.*

⁴⁹ See, e.g., John Mayer et al., *Emotional Intelligence: New Ability or Eclectic Traits?*, 63 AM. PSYCHOLOGIST 503 (2008); John Mayer et al., *What Is Emotional Intelligence and What Does It Predict?*, in *EXTENDING INTELLIGENCE: ENHANCEMENT AND NEW CONSTRUCTS* 319, 319–48 (Patrick C. Kyllonen et al. eds., 2008).

⁵⁰ *Intelligence, Emotional*, *ENCYCLOPEDIA OF APPLIED PSYCHOLOGY* 315–19 (Charles Spielberger et al. eds., 2004).

⁵¹ See John D. Mayer & Peter D. Salovey, *What Is Emotional Intelligence?*, in *EMOTIONAL DEVELOPMENT AND EMOTIONAL INTELLIGENCE: EDUCATIONAL IMPLICATIONS* 5 (Peter D. Salovey & David Sluyter eds., 1997).

(2) the Goleman model (competencies and skills across four areas: self-awareness, self-management, social awareness or empathy, and relationship management);⁵² and (3) the Bar-On model (interrelated emotional and social competencies including self-perception, self-expression, stress management, decision making, and interpersonal).⁵³

These three primary models are still applied today in training and research. Although there are fundamental differences in the approaches and frameworks, there is an overlap in terms of core competencies. One key competency for lawyers, represented in some capacity in each model, is self-management, or ER. ER requires being able to down-regulate when emotions are running too high and up-regulate when emotions are too low.⁵⁴ In other words, some ER strategies have to do with decreasing negative emotions (i.e., down-regulating) while others pertain to increasing emotions (i.e., up-regulating). Psychologist Daniel Goleman refers to this as the fire and the brakes, needed to keep yourself motivated and driven but at the same time calm, poised under pressure, and grounded in order to perform.⁵⁵ The importance of ER is seen throughout legal work in the need to respond to emotional clients, irritated colleagues, or unavoidable setbacks in cases. Where psychologists Peter Salovey, John D. Mayer, and David R. Caruso describe this core competency as “management of emotion,”⁵⁶ Goleman defines one of four primary competencies of this construct as “self-management,” and Reuvan Bar-On, a leading theorist and researcher in EI, describes the importance of impulse control as key to his decision-making cluster.⁵⁷ ER is also central to Bar-On’s Stress Management branch that is made up of three competencies: flexibility (adapting emotions to circumstances), stress tolerance (healthy coping), and optimism (maintaining a positive outlook).⁵⁸ In contrast, Goleman’s self-management is composed of four sub-competencies: emotional self-control, adaptability, achievement orientation, and positive outlook.⁵⁹

⁵² See Daniel Goleman, *An EI-Based Theory of Performance*, in THE EMOTIONALLY INTELLIGENT WORKPLACE: HOW TO SELECT FOR, MEASURE, AND IMPROVE EMOTIONAL INTELLIGENCE IN INDIVIDUALS, GROUPS, AND ORGANIZATIONS 2 (Cary Cherniss & Daniel Goleman eds., 2001) [hereinafter *EI-Based Theory*].

⁵³ See *The Emotional Quotient Inventory (EQ-i)*, CONSORTIUM FOR RES. ON EMOTIONAL INTELLIGENCE IN ORG., <https://perma.cc/QN36-F4BW> [hereinafter *The Emotional Quotient Inventory*].

⁵⁴ See James J. Gross, *Emotion Regulation: Conceptual and Empirical Foundations*, in HANDBOOK OF EMOTION REGULATION 4 (James J. Gross ed., 2d. ed. 2014) [hereinafter *Emotion Regulation*].

⁵⁵ See *EI-Based Theory*, *supra* note 52, at 28.

⁵⁶ John D. Mayer et al., *Emotional Intelligence: Theory, Findings, and Implications*, 15 PSYCHOL. INQUIRY 197, 199 (2004).

⁵⁷ See *The Emotional Quotient Inventory*, *supra* note 53.

⁵⁸ See Bar-On, *supra* note 20, at 14.

⁵⁹ See *Emotional and Social Competency Inventory (ESCI): A User Guide for Accredited Practitioners*, HAYGROUP 5 (2011), <https://perma.cc/7WWR-LJ3B> [hereinafter *ESCI*].

Each of the three primary models of EI magnifies the central role of ER in intelligent behavior. One's ability to express the right emotion, to the right degree, at the right time, is a key aspect of EI.⁶⁰ Each model highlights not only the desire, but the necessity, of controlling emotional responses in a productive manner.⁶¹ Goleman's four branch model describes self-control, a core sub-competency of self-management, as "the ability to keep disruptive emotions and impulses in check and maintain our effectiveness under stressful or hostile conditions."⁶² This version of emotional self-control is also thought to entail the ability to restrain negative actions when provoked or working under pressure.⁶³ Lawyers frequently find themselves in heated, adversarial situations where mastery over their emotional life and the interpersonal dynamics involved can make or break the outcome. As shown by each of the reigning models described above, as EI improves so too does one's ability to regulate emotions, and, therefore, the ability to deal calmly with stress, display restraint over impulses, and stay positive and motivated throughout one's life.⁶⁴

B. *The Psychology of Emotion*

Efforts to neatly define emotion in the traditional sense developed slowly as scientists were met with the reality that each emotion involves a complex set of responses.⁶⁵ Emotions involve a wide array of physiological and psychological responses and can vary by situation in terms of expression, intensity, and length.⁶⁶ Though scientists still deliberate on a final definition with new approaches to research and new discoveries, we know a lot already.⁶⁷ For example, we know emotions are a state of feeling and they involve different components, such as cognitive processes, behavior, physiological, and psychological, and depending on the academic discipline, the particular component of the emotion (i.e., physiological or mental) will be the focus.⁶⁸

Goleman's classic bestseller, *Emotional Intelligence: Why It Can Matter More than IQ*, defined emotion as "the instant plans for handling life that evolution has

⁶⁰ See DANIEL GOLEMAN, *EMOTIONAL INTELLIGENCE: WHY IT CAN MATTER MORE THAN IQ* 80 (2006).

⁶¹ See *EI-Based Theory*, *supra* note 52, at 28; Mayer et al., *supra* note 56, at 199; *The Emotional Quotient Inventory*, *supra* note 53.

⁶² *ESCI*, *supra* note 59, at 5.

⁶³ *Id.*

⁶⁴ See *EI-Based Theory*, *supra* note 52, at 28; Mayer et al., *supra* note 56, at 199; *The Emotional Quotient Inventory*, *supra* note 53.

⁶⁵ GOLEMAN, *supra* note 60, at 16.

⁶⁶ *Id.*

⁶⁷ See *id.* at 6; *Emotion Regulation*, *supra* note 54, at 4.

⁶⁸ See *Emotion Regulation*, *supra* note 54, at 4.

instilled in us.”⁶⁹ He highlights the fact that emotions are simply impulses to act or move.⁷⁰ He also points out that the very root of the word emotion, *motere* (the Latin verb to move), suggests that emotion, in its basic sense, means to move into action.⁷¹ Each emotion triggers a physiological and cognitive reaction that leads to movement.⁷²

Additionally, each emotion serves a particular purpose and prepares the body for a very different kind of response.⁷³ Emotions involve an array of physiological and social responses known as biological signatures.⁷⁴ For instance, as described by Goleman, anger increases blood flow through the body down to the extremities, allowing us to respond to outside stimuli by making a grasping fist to strike.⁷⁵ Each emotion leads to a complex physiological and cognitive reaction that serves a unique purpose related to some goal.⁷⁶ Emotions allow us to act quickly without having to reason, serving an important survival function.⁷⁷

Scholars have also started to outline *core features* of emotions, attributes or necessary conditions shared by all emotions.⁷⁸ One of the core features is *when* the emotion occurs.⁷⁹ Emotions arise when a situation is interpreted or *appraised* as relevant and important to a particular goal.⁸⁰ This has been well documented by Appraisal Theory which claims that “emotions are elicited and differentiated on the basis of a person’s subjective evaluation or appraisal of the personal significance of a situation, object, or event on a number of dimensions or criteria.”⁸¹ Richard Lazarus, a prominent psychologist, suggested a two-stage process of appraisal: (1) primary appraisal, which involves determining if the situation is of positive or negative significance for one’s well-being, and (2) secondary appraisal, which is the ability to cope with the consequences of an event.⁸² Appraisal Theory teaches us that the meaning an individual gives to a situation related to a particular goal

⁶⁹ GOLEMAN, *supra* note 60, at 6.

⁷⁰ *Id.*

⁷¹ *Id.* at 6.

⁷² *Id.* at 7.

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *Id.* at 6.

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ See, e.g., *Emotion Regulation*, *supra* note 54, at 4.

⁷⁹ See *Emotion Regulation*, *supra* note 54, at 4.

⁸⁰ *Id.*

⁸¹ Klaus R. Scherer, *Appraisal Theory*, in HANDBOOK OF COGNITION AND EMOTION 637 (Tim Dalgleish & Mick Power eds., 1999).

⁸² RICHARD S. LAZARUS, PSYCHOLOGICAL STRESS AND THE COPING PROCESS 159–60 (1966).

will lead to the resulting emotion.⁸³ This basic appraisal concept forms the core of cognitive therapy.⁸⁴

Cognitive therapy patients are taught that how they make sense of their environment and situation directly influences how they feel.⁸⁵ Thus, by monitoring their appraisal, interpretations, explanations, attributions, and self-talk, they can change how they feel.⁸⁶ This psychological process plays out for lawyers as well. The basic tenet underlying cognitive therapy can be applied to lawyers' ER. For instance, a lawyer who is unaware of his or her cognitive reaction to a demanding client might feel annoyed or agitated. These emotions could impact how he or she behaves toward the client and influence his or her performance or the outcome of his or her legal work. The power of emotion more often stems from what we tell ourselves, how we appraise the situation, and the meaning attached to such appraisal, than from the event or situation itself.

Another core feature of emotion is its *multifaceted nature*.⁸⁷ Emotions are thought to involve the entire body and various processes, in particular subjective experience, behavior, and central and peripheral physiology.⁸⁸ Quite simply, emotions involve both feeling and action. One of the best known emotion models is referred to as the Modal Model of Emotion which describes the formative process of emotion.⁸⁹ Based on this model, emotions arise when a person-situation interaction occurs that involves attention and appraisal.⁹⁰ According to this model, when a situation is meaningfully relevant, the lawyer will attend to it in various ways.⁹¹ This leads to appraisals based on the meaning given to the situation, and these appraisals then produce emotion.⁹² The emotional responses brought on by the interpretation include behavioral and neurobiological responses.⁹³

What does this mean for lawyers? Imagine a heated debate between two lawyers from the same firm about how to approach a new client's case. After an intense ten-minute discussion, one of the lawyers starts to nod and smile.

⁸³ See Klaus R. Scherer, *Emotions are Emergent Processes: They Require a Dynamic Computational Architecture*, 364 PHIL. TRANSACTIONS OF THE ROYAL SOC'Y B: BIOLOGICAL SCI. 3459, 3460 (2009).

⁸⁴ See AARON T. BECK ET AL., COGNITIVE THERAPY OF DEPRESSION 3 (1979).

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ See *Emotion Regulation*, *supra* note 54, at 4.

⁸⁸ *Id.*

⁸⁹ See James J. Gross, *Antecedent- and Response-Focused Emotion Regulation: Divergent Consequences for Experience, Expression, and Physiology*, 74 J. PERSONALITY & SOC. PSYCHOL. 224, 226 (1998).

⁹⁰ *Id.*

⁹¹ See *Emotion Regulation*, *supra* note 54, at 4.

⁹² See Gross, *supra* note 89, at 226.

⁹³ *Id.*

The other lawyer, noticing the softer demeanor of his or her colleague, then starts to feel more compassionate and collaborative, resulting in a change in the approach to the issue. The positive body language in this example altered a tense interpersonal situation. An emotional response can change the environment and therefore alter the potential subsequent emotions that surface.

III. BRAIN STRUCTURE

Lawyering is a cognitive profession and a lawyer's brain is his or her most important asset. Developments in neuroscience allow a lawyer to better understand how his or her brain functions. A lawyer's brain has a triune structure, divided into three functional areas: the primitive brain, the emotional brain, and the thinking brain.⁹⁴ The brain evolved upward beginning with the primitive brain, which sits above the spine and oversees the lawyer's heartbeat, breathing, and digestion.⁹⁵ Major areas of the primitive brain are the brain stem and the cerebellum.⁹⁶ The primitive brain is involved if the lawyer is struggling for survival, facing conditions such as heart failure or breathing difficulties.⁹⁷

The areas of the brain that are involved in cognition and emotional regulation are the emotional brain and thinking brain.⁹⁸ The emotional brain is wrapped around the primitive brain.⁹⁹ Many of its components are in pairs, one per hemisphere, including the amygdala, hippocampus, thalamus, hypothalamus, nucleus accumbens, and ventral tegmental area.¹⁰⁰ The emotional brain is engaged when the lawyer is creating new memories, such as learning about an area of the law, or experiencing an emotional response, for example to a client interaction or court result.¹⁰¹

The walnut-shaped thinking brain sits above the emotional brain and is divided into two hemispheres and four lobes.¹⁰² The left hemisphere (which

⁹⁴ See BARRY J. GIBB, *THE ROUGH GUIDE TO THE BRAIN* 6–8 (2d ed. 2012); JUDITH HORSTMAN, *THE SCIENTIFIC AMERICAN BRAVE NEW BRAIN* 3–4 (2010) [hereinafter *BRAVE NEW BRAIN*]; DAVID PERLMUTTER & ALBERTO VILLOLDO, *POWER UP YOUR BRAIN: THE NEUROSCIENCE OF ENLIGHTENMENT* 16–21 (2011).

⁹⁵ See GIBB, *supra* note 94, at 37; *BRAVE NEW BRAIN*, *supra* note 94, at 3.

⁹⁶ GIBB, *supra* note 94, at 36–37.

⁹⁷ PERLMUTTER & VILLOLDO, *supra* note 94, at 27.

⁹⁸ See GIBB, *supra* note 94, at 39; see also PERLMUTTER & VILLOLDO, *supra* note 94, at 19–20.

⁹⁹ RITA CARTER, *MAPPING THE MIND* 15 (2010) [hereinafter *MAPPING THE MIND*].

¹⁰⁰ RITA CARTER, *THE HUMAN BRAIN BOOK: AN ILLUSTRATED GUIDE TO ITS STRUCTURE, FUNCTION, AND DISORDERS* 64, 128 (2009) [hereinafter *THE HUMAN BRAIN*]; JUDITH HORSTMAN, *THE SCIENTIFIC AMERICAN: DAY IN THE LIFE OF YOUR BRAIN* 4–5 (1st ed. 2009) [hereinafter *DAY IN THE LIFE*].

¹⁰¹ GIBB, *supra* note 94, at 39.

¹⁰² See MICHAEL S. SWEENEY, *BRAIN: THE COMPLETE MIND: HOW IT DEVELOPS, HOW IT WORKS, AND HOW TO KEEP IT SHARP* 20 (2009); see also *MAPPING THE MIND*, *supra* note 99, at 14; GIBB, *supra* note 94, at 40.

controls analysis, logic, details, and convergent thinking)¹⁰³ is connected to the right hemisphere (which controls intuition, imagination, emotion, and divergent thinking)¹⁰⁴ by the corpus callosum, a bundle of nerves that allows the hemispheres to communicate.¹⁰⁵ The frontal lobe controls reasoning, planning, and language; the occipital lobe is in charge of vision; the temporal lobe is devoted to hearing; and the parietal lobe facilitates movement, taste, temperature, and touch.¹⁰⁶ The lawyer's executive function, reasoning, and higher-order thinking skills reside in the thinking brain.¹⁰⁷ A lawyer uses his or her thinking brain when applying the law to a client's problem and making recommendations for the client to act.¹⁰⁸

The communication nerve cells in the lawyer's brain are neurons and the support cells are glial cells.¹⁰⁹ Networks of neurons transport information through the brain, and from the brain to the body.¹¹⁰ Neurons are shaped like trees¹¹¹ and information flows from the signal-receiving dendrite branches, down the axon trunk, and out the signal-pushing axon terminal.¹¹² Information travels through the neuron as an electrical impulse.¹¹³ It moves from the axon terminal of the output neuron to the dendrites of the input neuron across a tiny gap called a synapse via chemical neurotransmitter.¹¹⁴ About ten percent of the lawyer's brain cells are neurons and the rest are glial cells, which insulate neurons and assist with the flow of information.¹¹⁵

Each neuron connects to as many as 10,000 other neurons¹¹⁶ with the help of over one hundred neurotransmitters such as acetylcholine (attention and memory); dopamine (motivation, meaning, and repeat behavior); endorphins (reduce pain); gamma-aminobutyric acid or GABA (inhibits brain signals);

¹⁰³ See MAPPING THE MIND, *supra* note 99, at 36; see also DAY IN THE LIFE, *supra* note 100, at 130; SWEENEY, *supra* note 102, at 20.

¹⁰⁴ See MAPPING THE MIND, *supra* note 99, at 36; see also DAY IN THE LIFE, *supra* note 100, at 130; SWEENEY, *supra* note 102, at 20.

¹⁰⁵ See GIBB, *supra* note 94, at 41; SWEENEY, *supra* note 102, at 20.

¹⁰⁶ See THE HUMAN BRAIN, *supra* note 100, at 66; MAPPING THE MIND, *supra* note 99, at 14; GIBB, *supra* note 94, at 40; DAY IN THE LIFE, *supra* note 100, at 6.

¹⁰⁷ See PERLMUTTER & VILLOLDO, *supra* note 94, at 19–20.

¹⁰⁸ *Id.*

¹⁰⁹ THE HUMAN BRAIN, *supra* note 100, at 69.

¹¹⁰ SWEENEY, *supra* note 102, at 11.

¹¹¹ See THE HUMAN BRAIN, *supra* note 100, at 69; SWEENEY, *supra* note 102, at 10–11.

¹¹² BRAVE NEW BRAIN, *supra* note 94, at 39.

¹¹³ See GIBB, *supra* note 94, at 34; SWEENEY, *supra* note 102, at 14.

¹¹⁴ See BRAVE NEW BRAIN, *supra* note 94, at 39; MAPPING THE MIND, *supra* note 99, at 16, 28–29; DAY IN THE LIFE, *supra* note 100, at 6.

¹¹⁵ THE HUMAN BRAIN, *supra* note 100, at 69.

¹¹⁶ MAPPING THE MIND, *supra* note 99, at 16.

glutamate (learning, memory, and excites brain signaling); oxytocin (bonding); and serotonin (mood, anxiety, and sleep).¹¹⁷ Information moves throughout the brain in an electrochemical web of neurons.¹¹⁸ Every lawyer, therefore, possesses a unique neural network, built by individual experience.¹¹⁹

A. *The Neuroscience of Emotion*

An emotion is an automatic physiological and cognitive response to emotional stimuli, such as a bereft client sobbing in a lawyer's office, an unexpected result after months or years of working on a case, or a promotion.¹²⁰ Involuntary physical reactions include facial expressions, blushing, muscle contractions, and increases in heart rate and blood pressure.¹²¹ Emotions are experienced as feelings when the lawyer becomes aware of the physical symptoms of the emotion.¹²²

The autonomic nervous system works with a lawyer's brain to maintain the balance between being vigilant and relaxed, or apprehensive and calm.¹²³ Equilibrium within the autonomic nervous system is maintained when there is stability between the nervous system's two sub-systems: the sympathetic nervous system and the parasympathetic nervous system.¹²⁴ The sympathetic nervous system controls the fight-or-flight response, and the parasympathetic nervous system regulates a lawyer's rest-and-digest restorative functions.¹²⁵

When a lawyer experiences emotional stimuli, his or her brain sends signals to the endocrine, autonomic, and skeletal motor systems which are responsible

¹¹⁷ See MAPPING THE MIND, *supra* note 99, at 29; DAY IN THE LIFE, *supra* note 100, at 8; JOHN J. RATEY, SPARK: THE REVOLUTIONARY NEW SCIENCE OF EXERCISE AND THE BRAIN 37 (2008); SWEENEY, *supra* note 102, at 15.

¹¹⁸ See MAPPING THE MIND, *supra* note 99, at 28; JOSEPH LEDOUX, SYNAPTIC SELF: HOW OUR BRAINS BECAME WHO WE ARE 47 (2002) [hereinafter SYNAPTIC SELF].

¹¹⁹ See, e.g., ERIC R. KANDEL ET AL., PRINCIPLES OF NEURAL SCIENCE 1523–24 (5th ed. 2013); Mark I. Sirkin, *Managing Your Brain—A User's Guide*, 82 N.Y. ST. B. ASS'N J. 38, 39 (2010), <https://perma.cc/MK8L-T8JM>; JOHN MEDINA, BRAIN RULES: 12 PRINCIPLES FOR SURVIVING AND THRIVING AT WORK, HOME, AND SCHOOL 66 (2008).

¹²⁰ See KANDEL ET AL., *supra* note 119, at 1079; GIBB, *supra* note 94, at 96. In everyday English, we use the term “emotion” incorrectly because it is an automated body response. See GIBB, *supra* note 94, at 96.

¹²¹ See THE HUMAN BRAIN, *supra* note 100, at 124; MAPPING THE MIND, *supra* note 99, at 82; SWEENEY, *supra* note 102, at 208.

¹²² KANDEL ET AL., *supra* note 119, at 1079. The term “feeling” is the accurate word to describe our awareness of the emotional response. See *id.*

¹²³ See FUNDAMENTAL NEUROSCIENCE 729 (Larry Squire et al. eds., 4th ed. 2012) [hereinafter FUNDAMENTAL NEUROSCIENCE]; see also KANDEL ET AL., *supra* note 119, at 1066–67; GAYATRI DEVI, A CALM BRAIN: HOW TO RELAX INTO A STRESS-FREE, HIGH-POWERED LIFE 37 (2012).

¹²⁴ See DALE PURVES ET AL., PRINCIPLES OF COGNITIVE NEUROSCIENCE 326 (2d ed. 2013); see also FUNDAMENTAL NEUROSCIENCE, *supra* note 123, at 730.

¹²⁵ PURVES ET AL., *supra* note 124, at 326.

for physiological responses.¹²⁶ The endocrine system sends hormones into the bloodstream and the autonomic system stimulates cardiovascular activity.¹²⁷ The skeletal motor system activates reactions such as immobilization or escape efforts.¹²⁸

A lawyer's fight-or-flight stress response begins in the emotional brain. The amygdala is the "brain's panic button," and, as soon as it detects a threat, it alerts the thalamus to focus attention and the hypothalamus to release stress hormones.¹²⁹ The endocrine system releases adrenalin and glucocorticoids (cortisol is the key glucocorticoid) which elevate heart rate and blood pressure, marshal energy resources, slow digestion, and curb immune responses.¹³⁰ The fight-or-flight response evolved to deal with predator threats, but it can be initiated in a lawyer's brain by various concerns, such as the apprehension of threats to client outcomes, job security, or law school success.¹³¹

"Threat processing is at the heart of fear and anxiety."¹³² Threat detection is the critical first step in the fight-or-flight process, where a lawyer's body and brain are mobilized to respond to stress.¹³³ Threat processing is handled by the amygdala for specific and certain threats and by the bed nucleus of the stria terminalis, part of the extended amygdala, for uncertain threats.¹³⁴ The hippocampus is also involved in threat processing, drawing on memory and evaluating context in its role in risk assessment during conflict or uncertainty.¹³⁵ Research has shown that anxiety behaviors can be escalated or calmed by manipulating neural activity in the hippocampus.¹³⁶

The six primary emotions described by psychologists are fear, anger, disgust, sadness, surprise, and joy, several of which can be involved in lawyer stress.¹³⁷

¹²⁶ See KANDEL ET AL., *supra* note 119, at 1079.

¹²⁷ *Id.* at 1080.

¹²⁸ *Id.*

¹²⁹ See RATEY, *supra* note 117, at 62; see also RICK HANSON, BUDDHA'S BRAIN: THE PRACTICAL NEUROSCIENCE OF HAPPINESS, LOVE & WISDOM 52 (2009).

¹³⁰ See THE HUMAN BRAIN, *supra* note 100, at 232; MEDINA, *supra* note 116, at 174; PERLMUTTER & VILLOLDO, *supra* note 91, at 60; SWEENEY, *supra* note 99, at 40; FUNDAMENTAL NEUROSCIENCE, *supra* note 120, at 804; PRINCIPLES OF NEURAL SCIENCE, *supra* note 116, at 1409.

¹³¹ See MEDINA, *supra* note 119, at 175; RATEY, *supra* note 117, at 63.

¹³² LEDOUX, ANXIOUS: USING THE BRAIN TO UNDERSTAND AND TREAT FEAR AND ANXIETY 17 (2015).

¹³³ *Id.*

¹³⁴ *Id.* at 105–06.

¹³⁵ *Id.* at 106.

¹³⁶ *Id.*

¹³⁷ See, e.g., THE HUMAN BRAIN, *supra* note 100, at 127; MAPPING THE MIND, *supra* note 99, at 86; SWEENEY, *supra* note 102, at 208 (stating that most scientists recognize either four or six basic emotions and the four most fundamental are fear, anger, sadness, and joy).

Stress is defined as a measurable physiological response to a stressor, which is perceived by the lawyer as undesirable and out of the lawyer's control.¹³⁸ There are two kinds of stress: acute and chronic.¹³⁹ Acute stress is fleeting and can help a lawyer consolidate resources to address a short-lived physical or intellectual challenge, such as presenting an argument in court.¹⁴⁰ Chronic stress is prolonged and can be caused by lengthy relationship or money issues, serious illnesses, toxic office politics, or a demanding legal education.¹⁴¹

A lawyer subjected to chronic stress can experience emotional disorders such as anxiety, panic attacks, or depression, and physical problems such as irritability, breathlessness, dizziness, abdominal discomfort, muscle tension, sweating, chills, heart palpitations, chest pain, and/or increased blood pressure.¹⁴² Excess adrenaline causes blood pressure surges and scarring in the blood vessels which increases the risk of having a stroke or heart attack.¹⁴³ White blood cells become impaired, unable to fight infection, undermining the immune system.¹⁴⁴

Prolonged stress response causes ongoing damage to the emotional brain of the stressed lawyer.¹⁴⁵ The over-active amygdala produces excess cortisol which suppresses the hippocampus, resulting in additional cortisol production.¹⁴⁶ Executive function in the thinking brain is compromised during chronic stress response, thus emotional regulation in the face of real or perceived threats is very difficult.¹⁴⁷ Many lawyers and law students are immersed in a culture of stress response overdrive, believing the adrenaline rush enhances their performance.¹⁴⁸ Research has proven that memory and cognitive functions are impaired during the fight-or-flight stress response, but, by enhancing the rest-and-digest system, it can help reverse the damage.¹⁴⁹

The rest-and-digest parasympathetic nervous system restores balance by curtailing the release of stress hormones, slowing the heart rate, lowering blood

¹³⁸ MEDINA, *supra* note 119, at 173–74.

¹³⁹ PERLMUTTER & VILLOLDO, *supra* note 94, at 59.

¹⁴⁰ *Id.*

¹⁴¹ *Id.*; see also DOUGLAS LITOWITZ, THE DESTRUCTION OF YOUNG LAWYERS: BEYOND ONE L 10, 19 (2006).

¹⁴² See THE HUMAN BRAIN, *supra* note 100, at 232.

¹⁴³ MEDINA, *supra* note 119, at 176.

¹⁴⁴ *Id.*

¹⁴⁵ See HANSON, *supra* note 129, at 50, 52–53; see also RATEY, *supra* note 117, at 66–67.

¹⁴⁶ HANSON, *supra* note 129, at 53, 57.

¹⁴⁷ See *id.* at 50–53.

¹⁴⁸ See DEVI, *supra* note 123, at 7.

¹⁴⁹ See HANSON, *supra* note 129, at 52–60; RATEY, *supra* note 117, at 67–71; see also DEVI, *supra* note 123, at 83–86; LEDOUX, *supra* note 132, at 59.

pressure, and promoting digestion.¹⁵⁰ This restores the feelings of contentment and being calm.¹⁵¹ Lawyers can reverse stress response damage, build cognitive reserves, and foster resilience by improving their rest-and-digest parasympathetic nervous system.¹⁵²

B. The Impact of Emotion on Cognition

Learning is defined as the acquisition of new information, and the storage of new information is considered memory.¹⁵³ When the brain processes and stores memories, it creates fresh networks of neurons in the emotional and thinking brains.¹⁵⁴ Information enters the thinking brain as memory traces via the senses.¹⁵⁵ The occipital lobe processes visual information; the temporal lobe handles sound; the frontal lobe mediates language; and the parietal lobe deals with movement, touch, or taste.¹⁵⁶ Sensory information travels from the thinking brain to the emotional brain.¹⁵⁷ The thalamus focuses attention, screens and sorts it, and directs it to the hippocampus.¹⁵⁸ The amygdala is consulted for emotional content¹⁵⁹ and returns the traces of information to the thinking brain lobe of its sensory origin before returning it to the hippocampus; this process forms an informational loop of connected neurons called circuits.¹⁶⁰

The brain encodes information during the first few circuits between the senses in the thinking brain and the hippocampus in the emotional brain.¹⁶¹ When information is repeated or rehearsed, neural networks are strengthened

¹⁵⁰ See, e.g., WILLIAM J. BROAD, *THE SCIENCE OF YOGA: THE RISKS AND THE REWARDS* 90 (2012); DEVI, *supra* note 123, at 53; SWEENEY, *supra* note 102, at 41; *FUNDAMENTAL NEUROSCIENCE*, *supra* note 123, at 734.

¹⁵¹ See ERIC H. CHUDLER, *THE LITTLE BOOK OF NEUROSCIENCE HAIKU* 35 (2013); HANSON, *supra* note 129, at 59.

¹⁵² See DEVI, *supra* note 123, at 37; see also LINDA GRAHAM, *BOUNCING BACK: REWIRING YOUR BRAIN FOR MAXIMUM RESILIENCE AND WELL-BEING* 208 (2013).

¹⁵³ SWEENEY, *supra* note 102, at 236 (referring to a statement made by Eric R. Kandel).

¹⁵⁴ MARGARET GLICK, *THE INSTRUCTIONAL LEADER AND THE BRAIN: USING NEUROSCIENCE TO INFORM PRACTICE* 88–89 (2011).

¹⁵⁵ See SWEENEY, *supra* note 102, at 248; KANDEL ET AL., *supra* note 119, at 1442; PURVES ET AL., *supra* note 124, at 431.

¹⁵⁶ See *THE HUMAN BRAIN*, *supra* note 100, at 66; GIBB, *supra* note 94, at 40; *DAY IN THE LIFE*, *supra* note 100, at 6.

¹⁵⁷ SWEENEY, *supra* note 102, at 246.

¹⁵⁸ See *THE HUMAN BRAIN*, *supra* note 100, at 60; GERALD M. EDELMAN, *WIDER THAN THE SKY: THE PHENOMENAL GIFT OF CONSCIOUSNESS* 19–21 (2004).

¹⁵⁹ SWEENEY, *supra* note 102, at 242.

¹⁶⁰ See *THE HUMAN BRAIN*, *supra* note 100, at 159.

¹⁶¹ See MEDINA, *supra* note 119, at 103, 109; *THE HUMAN BRAIN*, *supra* note 100, at 159.

as chains of neurons fire together, a process called long-term potentiation.¹⁶² For example, when a lawyer reads a set of statutes for the first time, his or her occipital lobe begins to encode the visual information (the thinking brain) and is directed by the thalamus to the hippocampus (the emotional brain). If he or she rereads the statutes, or reads a case that interprets the statutes, he or she is rehearsing the information and strengthening the neural network in his or her brain. As a result, he or she will be able to retrieve this information from the network of neurons for years before it becomes fully stabilized in his or her brain.

Information spends between two and ten years traveling in a neural loop from the thinking and emotional brains before it is fully consolidated or stored in long-term memory.¹⁶³ Researchers believe this consolidation process occurs primarily during sleep.¹⁶⁴ Additionally, research indicates that newer memories will be retrieved from the thinking brain-emotional brain loop,¹⁶⁵ underscoring the importance of a healthy and well-functioning hippocampus. If there is sufficient iteration of information through the thinking-emotional brain circuit, then fully consolidated memories will be stored in the cerebral cortex (in the thinking brain) when the hippocampus is no longer needed for memory retrieval.¹⁶⁶ For instance, an experienced lawyer stores consolidated memories in his or her thinking brain after he or she has used the information for many years to counsel clients.

Emotion information travels through two parallel paths in the brain.¹⁶⁷ The slower analytical course involves the encoding and consolidation of information in the thinking brain-emotional brain circuit.¹⁶⁸ The “quick and dirty” route shuttles information directly to the amygdala for a threat assessment,¹⁶⁹ allowing the lawyer to respond with immediate fight, flight, or appeasement.¹⁷⁰ A New York University neuroscientist, Joseph LeDoux, demonstrated that more neural signals travel up from the emotional brain to the thinking brain than down from

¹⁶² MEDINA, *supra* note 119, at 134–35.

¹⁶³ See, e.g., THE HUMAN BRAIN, *supra* note 100, at 159; see also MAPPING THE MIND, *supra* note 99, at 162; MEDINA, *supra* note 119, at 138, 140.

¹⁶⁴ See MAPPING THE MIND, *supra* note 99, at 162, 166; THE HUMAN BRAIN, *supra* note 100, at 159; GIBB, *supra* note 94, at 68; SWEENEY, *supra* note 102, at 246.

¹⁶⁵ SWEENEY, *supra* note 102, at 249.

¹⁶⁶ MAPPING THE MIND, *supra* note 99, at 162.

¹⁶⁷ *Id.* at 83.

¹⁶⁸ See THE HUMAN BRAIN, *supra* note 100, at 125; MAPPING THE MIND, *supra* note 99, at 83.

¹⁶⁹ See MAPPING THE MIND, *supra* note 99, at 83; SWEENEY, *supra* note 102, at 215 (discussing this process in relation to experiencing fear).

¹⁷⁰ See THE HUMAN BRAIN, *supra* note 100, at 125; SUSAN GREENFIELD, THE PRIVATE LIFE OF THE BRAIN: EMOTIONS, CONSCIOUSNESS, AND THE SECRET OF THE SELF 18 (1st ed. 2000).

the thinking brain to the emotional brain, thus, he believes, the emotional brain has greater influence over a lawyer's behavior than the thinking brain.¹⁷¹

IV. EMOTION REGULATION (ER)

Although the processes underlying ER are quite complex, most lawyers regulate their emotions every day in a variety of ways. Many different activities count as ER, including pushing a chair away from a desk when a lawyer is too frustrated to work, a lawyer trying to change his or her interpretation of a setback in an effort to stay positive, or by taking a deep breath to calm nerves before commenting at a firm meeting. Most lawyers rely on these self-regulatory processes on a daily basis to manage their emotions.

James Gross—a psychologist known for his research in emotion and ER—defined ER as the set of processes by which individuals influence what emotions they have, when they have them, and how they experience and express those emotions.¹⁷² He explained that “emotion regulation is concerned with how emotions themselves are regulated (regulation *of* emotions), rather than how emotions regulate something else (regulation *by* emotions).”¹⁷³ Most of the early research on ER investigated how to cope with or regulate negative emotions rather than how to enhance positive emotions.¹⁷⁴ However, with the growth of the subfield of positive psychology, research is changing.¹⁷⁵ There is an established body of literature on the strategies used to regulate negative emotions and generate positive ones.¹⁷⁶ Lawyers need to utilize the strategies gleaned from research on managing negative emotions to reduce their intensity and limit their duration in legal work.

A lawyer's brain can be overtaken by emotional impulses to act because the body is hard-wired to react to an event emotionally before the brain can respond cognitively. Thus, lawyers will first experience emotion, and then label and interpret that experience. The more meaningful an event is to a lawyer, the greater the emotional response. Awareness of one's feelings will foster the ability to manage reactions. Without awareness, self-management is nearly impossible.

¹⁷¹ See MAPPING THE MIND, *supra* note 99, at 98 (quoting JOSEPH LEDOUX, THE EMOTIONAL BRAIN (1st ed. 1996)); see generally ROBERT M. SAPOLSKY, WHY ZEBRAS DON'T GET ULCERS (3d ed. 2004).

¹⁷² See Gross, *supra* note 89, at 226.

¹⁷³ *Emotion Regulation*, *supra* note 54, at 6.

¹⁷⁴ See *id.* at 4, 6.

¹⁷⁵ See, e.g., SONJA LYUBOMIRSKY, THE HOW OF HAPPINESS: A NEW APPROACH TO GETTING THE LIFE YOU WANT (2008); MARTIN E. P. SELIGMAN, FLOURISH: A VISIONARY NEW UNDERSTANDING OF HAPPINESS AND WELL-BEING (2011).

¹⁷⁶ See Robert E. Thayer et al., *Self-Regulation of Mood: Strategies for Changing a Bad Mood, Raising Energy, and Reducing Tension*, 67 J. PERSONALITY & SOC. PSYCHOL. 910, 911 (1994).

However, a lawyer can take steps to optimize brain functioning and enhance the parasympathetic nervous system which will nourish his or her brain and enhance the capacity to practice ER.

A. Strengthening a Lawyer's Brain to Optimize Emotion Regulation Capacity

There are several brain-enhancing strategies that can give a lawyer the capacity to optimize ER. Exercise, adequate sleep, and meditation build brain resources that empower attention, learning, and memory, and decrease the negative impacts of stress.¹⁷⁷ They also create the neuro-capacity for ER.¹⁷⁸

Aerobic exercise is the most powerful practice a lawyer can engage in to optimize brain functioning.¹⁷⁹ This is because any exercise that raises a lawyer's heart rate for an extended period of time increases blood and oxygen flow to the brain, elevates and balances key neurotransmitters, and causes the release of neurotrophins.¹⁸⁰ Further, oxygen and nutrient distribution is enhanced, and the hippocampus health is improved, increasing blood flow to the brain.¹⁸¹ The critical neurotransmitters for brain regulation are also increased and rebalanced, including serotonin (mood, emotion, appetite, and sleep), norepinephrine (attention, heartbeat, and blood pressure), and dopamine (motivation, behavior reinforcement, and meaning).¹⁸² Neurotrophins—proteins that build and protect brain cells—are dispatched during aerobic exercise, cultivating neurons in the hippocampus like a fertilizer.¹⁸³

In addition, adequate sleep greatly enhances memory consolidation.¹⁸⁴ Memory consolidation likely takes place during REM sleep because REM sleep

¹⁷⁷ See Debra S. Austin, *Killing Them Softly: Neuroscience Reveals How Brain Cells Die from Law School Stress and How Neural Self-Hacking Can Optimize Cognitive Performance*, 59 *LOY. L. REV.* 791, 826–44 (2013).

¹⁷⁸ *Id.*

¹⁷⁹ RATEY, *supra* note 117, at 245.

¹⁸⁰ DANIEL G. AMEN, *CHANGE YOUR BRAIN, CHANGE YOUR BODY: USE YOUR BRAIN TO GET AND KEEP THE BODY YOU HAVE ALWAYS WANTED* 110 (2010); see also BRAVE NEW BRAIN, *supra* note 94, at 29; MEDINA, *supra* note 119, at 22; PERLMUTTER & VILLOLDO, *supra* note 94, at 87–97; RATEY, *supra* note 117, at 38.

¹⁸¹ See MEDINA, *supra* note 119, at 21–22; THE HUMAN BRAIN, *supra* note 100, at 65; KANDEL ET AL., *supra* note 119, at 349.

¹⁸² See THE HUMAN BRAIN, *supra* note 100, at 231; MAPPING THE MIND, *supra* note 99, at 28; DAY IN THE LIFE, *supra* note 100, at 8, 34; MEDINA, *supra* note 119, at 16–17; RATEY, *supra* note 117, at 37–38; SWEENEY, *supra* note 102, at 15, 221.

¹⁸³ See NORMAN DOIDGE, *THE BRAIN THAT CHANGES ITSELF: STORIES OF PERSONAL TRIUMPH FROM THE FRONTIERS OF BRAIN SCIENCE* 255 (2007); see also RATEY, *supra* note 117, at 38–39, 50–53.

¹⁸⁴ See DEVI, *supra* note 123, at 165–66.

is when memory consolidation genes, responsible for forming new connections between neurons, are activated.¹⁸⁵ The communication rate between neurons during REM sleep is equal to or higher than when a lawyer is awake,¹⁸⁶ and two of the most active areas of the brain during sleep are the hippocampus and the amygdala.¹⁸⁷ A lawyer who manages to get the recommended eight hours of sleep per night will benefit from four REM sleep cycles, enhancing his or her memory recall.¹⁸⁸

Finally, meditation increases a lawyer's ability to serial task (e.g., to prioritize and focus on one thing at a time).¹⁸⁹ A serial-tasker is present in the moment, listens actively to others, maintains a working flow on projects, and ignores the false sense of urgency that multi-tasking creates.¹⁹⁰ Aside from increasing the ability to serial task, meditation also enhances the rest-and-digest parasympathetic nervous system, while curbing the stress response.¹⁹¹ Research indicates that meditation practice:

- ▶ increases gray matter in the thinking brain and emotional brain;
- ▶ reduces prefrontal cortex thinning due to aging;
- ▶ enhances the psychological functions of attention, mood, compassion, and empathy;
- ▶ improves health conditions such as immune system problems, cardiovascular disease, type II diabetes, asthma, PMS, chronic pain, insomnia, anxiety, phobias, eating disorders; and
- ▶ decreases stress-related cortisol levels.¹⁹²

¹⁸⁵ SAPOLSKY, *supra* note 171, at 232.

¹⁸⁶ DAY IN THE LIFE, *supra* note 100, at 158–59.

¹⁸⁷ THE HUMAN BRAIN, *supra* note 100, at 185; *see* SAPOLSKY, *supra* note 171, at 229.

¹⁸⁸ *See* THE HUMAN BRAIN, *supra* note 100, at 184; SWEENEY, *supra* note 102, at 189.

¹⁸⁹ DEVI, *supra* note 123, at 123–24.

¹⁹⁰ *Id.*

¹⁹¹ *See* HANSON, *supra* note 129, at 85; *see also* DEVI, *supra* note 123, at 64; AMEN, *supra* note 180, at 167, 174.

¹⁹² *See* SANDRA AAMODT & SAM WANG, WELCOME TO YOUR BRAIN 186 (2008); *see also* AMEN, *supra* note 180, at 224; HANSON, *supra* note 129, at 85–86; CHADE-MENG TAN ET AL., SEARCH INSIDE YOURSELF: THE UNEXPECTED PATH TO ACHIEVING SUCCESS, HAPPINESS (AND WORLD PEACE) 49 (2014).

B. Developing ER Skills

1. A Key Pre-Requisite: Self-Awareness

Metacognition refers to thinking about thoughts, attention to self-talk, and awareness of emotions, known as metamood.¹⁹³ Goleman describes this as “the sense of an ongoing attention to one’s internal states.”¹⁹⁴ Self-awareness is critical to self-management because it allows a lawyer to know what he or she is feeling and thinking in real time and to live more mindfully. Lawyers who are self-aware can step back from their experience to create space between recognizing feelings and managing their reaction to their feelings. Without self-awareness, it is nearly impossible for lawyers to regulate emotional reactions because they are being guided by the emotion itself instead of controlling the emotion. One study done by the HayGroup, a business consulting group, assessed over 427 business managers and found that, with self-awareness, they had a fifty-fifty chance of demonstrating self-management, but, without self-awareness, they had virtually no chance of demonstrating self-management.¹⁹⁵

Developing self-awareness is especially imperative for lawyers. The high-stakes work environment for a lawyer includes demanding clients, competitive compensation structures, civil litigation involving large sums of money, and criminal cases where personal freedoms are at risk. If a lawyer lacks self-awareness and self-management skills, lawyer-client relationships can be damaged, office dynamics can devolve, and attorney effectiveness can be inhibited. Self-awareness is a key component of ER that can be enhanced with a regular mindfulness practice.

2. Mindfulness

Mindfulness strengthens the parasympathetic rest-and-digest system and helps a lawyer become an “amygdala whisperer.”¹⁹⁶ A mindfulness practice involves activating self-awareness, rather than self-reflection.¹⁹⁷ It requires paying attention to the moment (awareness) with acceptance and without judgment (reflection).¹⁹⁸ Being mindful also allows a lawyer to control his or her attention and place it

¹⁹³ GOLEMAN, *supra* note 60, at 46.

¹⁹⁴ *Id.*

¹⁹⁵ See *Emotional Intelligence*, HAYGROUP 4, <https://perma.cc/Y2R6-AFKS>.

¹⁹⁶ See AMEN, *supra* note 180, at 167; TAYLOR CLARK, NERVE: POISE UNDER PRESSURE, SERENITY UNDER STRESS, AND THE BRAVE NEW SCIENCE OF FEAR AND COOL 81 (2011).

¹⁹⁷ SRINIVASAN S. PILLAY, YOUR BRAIN AND BUSINESS: THE NEUROSCIENCE OF GREAT LEADERS 50 (1st ed. 2011).

¹⁹⁸ See GRAHAM, *supra* note 152, at 52; HANSON, *supra* note 129, at 83; PILLAY, *supra* note 197, at 48.

where he or she intends.¹⁹⁹ It provides space between awareness and judgments or reactions.²⁰⁰ Research on mindfulness indicates that it enhances the insula in the thinking brain, increases gray matter and connections between brain regions, decreases distraction, improves immune function and anxiety, and equips the brain to notice patterns and situations before responses become overly-reactive.²⁰¹

In one study, Dr. Sara Lazar, an instructor at Harvard Medical School, used neuroimaging techniques to discover thicker regions of the frontal cortex, responsible for reasoning and decision-making, in those who adhered to consistent mindfulness practice compared to those who did not.²⁰² She also found a thicker insula, which is central in coordinating thoughts and emotions.²⁰³ Many of the benefits of mindfulness are thought to be partly due to neuroplasticity, which is the ability to rewire the brain with exposure to experiences.²⁰⁴ Lawyers can rewire their brains by strengthening or weakening nerve connections throughout their lives, resulting in the ability to develop new thinking, coping, and relating skills.²⁰⁵ By activating certain brain regions during mindfulness—such as the Anterior Cingulate Cortex (ACC) which plays a key role in executive attention—more cortical space is devoted to those regions and executive function improves.²⁰⁶

Mindfulness research has revealed four distinct benefits that hold the potential to significantly improve legal practice: attention regulation, body awareness, emotion regulation, and change in self-perspective.²⁰⁷ Attention is critical in legal study and practice because the ability to concentrate on exams or drawn-out court proceedings is a core lawyering skill. During mindfulness meditation exercises, attention typically rests on a single object, such as breath. Participants are instructed to focus on the sensations of breathing, and when they notice that their mind has wandered off or distracted by a thought or feeling, to acknowledge what captured their attention and then gently escort their attention back to breath sensations. Focusing the mind repeatedly on one thing at a time during mindfulness practice leads to activating the brain region responsible for attention

¹⁹⁹ HANSON, *supra* note 129, at 177.

²⁰⁰ GRAHAM, *supra* note 152, at 59–60.

²⁰¹ See DEVI, *supra* note 123, at 143; GRAHAM, *supra* note 152, at 51; SCOTT L. ROGERS & JAN L. JACOBOWITZ, MINDFULNESS AND PROFESSIONAL RESPONSIBILITY: A GUIDE BOOK FOR INTEGRATING MINDFULNESS INTO THE LAW SCHOOL CURRICULUM 22–23 (2012); TAN ET AL., *supra* note 192, at 47.

²⁰² See Sara W. Lazar et al., *Meditation Experience is Associated with Increased Cortical Thickness*, 16 NEUROREPORT 1893, 1895 (2005).

²⁰³ See *id.*

²⁰⁴ See DANIEL J. SIEGEL, THE MINDFUL BRAIN: REFLECTION AND ATTUNEMENT IN THE CULTIVATION OF WELL-BEING 30 (2007).

²⁰⁵ *Id.* at 292.

²⁰⁶ *Id.* at 116.

²⁰⁷ See Britta K. Hölzel et al., *How Does Mindfulness Meditation Work? Proposing Mechanisms of Action from a Conceptual and Neural Perspective*, 6 PERSPECTIVES ON PSYCHOL. SCI. 537, 539 (2011).

(ACC) and is strengthened with repeated practice.²⁰⁸ Mindfulness meditation students who develop a mindfulness practice will eventually strengthen their ACC and their ability to stay focused.²⁰⁹

Mindfulness leads to enhanced EI primarily through growth of self-awareness, which is the cornerstone of EI. When a lawyer is self-aware, he or she is tuned in to what he or she is thinking and feeling, and knows the underlying reasons. He or she is more likely to be able to manage his or her emotions at any moment and choose to respond wisely, instead of falling back on outdated habits. A lawyer who lacks self-awareness and represents a challenging client might be unknowingly swept into conflict with the client or experience clouded judgment about what is best for the client. Mindfulness allows a lawyer to be more self-aware by helping him or her slow down the momentum of his or her thoughts, feelings, and bodily sensations so he or she can tune into his or her internal experience and reduce his or her risk of an outburst or poor decision-making.

The self-awareness that comes with a mindfulness practice can also bring about a positive outlook, enhanced empathy, and increased social awareness, all vital competencies for a sustainable and balanced legal practice. However, it is not solely about feeling better; these competencies separate outstanding lawyers from typical lawyers. Lawyers who participate in mindfulness training can become more mindful of their biases and stereotypes, improve their mindset about their work, and often appreciate the challenges in legal education. Mindful lawyers can then better utilize strengths and manage weaknesses, and thrive in a diverse society.

Mindfulness is also a key stress-management tool for law students. When students develop a regular mindfulness practice they are more tuned in to healthy and unhealthy habits, and are quicker to notice they have succumbed to harmful automatic pilot behavior. Students with a regular practice reclaim how they respond to the stressors inherent in legal education. Mindfulness activates the relaxation response, which is the parasympathetic nervous system activity associated with a calm state. A mindful lawyer can practice additional ER processes to enhance his or her wellbeing and performance.

3. *The Process Model of ER*

One of the most commonly cited ER models is the Process Model of ER (PMER), which identifies five clusters of ER processes that happen across the formation timeline of an emotion: situation selection, situation modification,

²⁰⁸ See Sara W. Lazar et al., *supra* note 202, at 1895.

²⁰⁹ *Id.*

attentional deployment, cognitive change, and response modification.²¹⁰ The PMER builds on the Modal Model of Emotion, discussed earlier.²¹¹ Lawyers can use these five strategies to manage emotion experienced during their work.

Situation selection requires the most preparation to regulate the emotion.²¹² This strategy involves taking action in order to reduce the likelihood of encountering a triggering situation. For example, a lawyer could take steps to avoid working with a difficult colleague or working on a particular type of legal matter. One caution in using situation selection is to ensure that it does not originate in or develop into avoidance and suppression. Research is unequivocal that suppression and avoidance of negative affect can have detrimental results for overall wellbeing. One of the most common forms of avoidance for law students and lawyers is the attempt to minimize anxiety. Awareness and acceptance of anxiety can lead to greater outcomes.

Situation modification is a strategy in which the situation is modified to increase or decrease the emotional influence.²¹³ For example, lawyers who find public speaking difficult may change the room set-up or use a PowerPoint presentation to lower the anxiety they experience from having all the focus directed at them.

Attentional deployment involves directing attention in a way that influences the resulting type or intensity of emotion.²¹⁴ In court proceedings, a lawyer may avoid looking at a particular family member who makes him or her feel timid when he or she intends to be assertive. Attentional deployment is commonly referred to as distraction.

Cognitive change involves modifying how a situation is being appraised to alter its emotional significance.²¹⁵ If a lawyer loses a case and starts to personalize it, he or she may feel sad, discouraged, or even hopeless. When making a cognitive change, however, he or she shifts his or her thinking or reappraises the situation to be more optimistic. Positive psychology interventions such as gratitude journaling, Three Good Things Habit, and developing an Optimistic Explanatory Style can assist lawyers in making a cognitive change.

²¹⁰ See James J. Gross, *The Emerging Field of Emotion Regulation: An Integrative Review*, 2 REV. GEN. PSYCHOL. 271 (1998).

²¹¹ See *id.*

²¹² See *id.* at 282–83.

²¹³ See *id.*

²¹⁴ See *id.* at 282, 284.

²¹⁵ See *id.* at 282–84.

Response modulation happens late in the emotion development process, after the situation has already brought about the emotion.²¹⁶ A lawyer attempts to directly influence the experiential, behavioral, or physiological components of the emotional response, once it has begun. When anxious, a lawyer could practice deep breathing to relax or, when under stress, he or she could hit the gym for some exercise to relieve tension.

V. CONCLUSION

With a knowledge of brain structure, autonomic nervous system function, how emotions arise in the brain, brain optimization, and the importance of emotion regulation, lawyers are empowered to improve how they work with each other and how they serve clients. To enhance the neuro-capacity for emotion regulation, lawyers can embrace regular exercise and plan to get seven to eight hours of sleep each night. To increase focus, lawyers can learn and practice meditation. To minimize the stress response and improve awareness, lawyers can employ a mindfulness practice. Science shows that these recommendations can improve lawyer emotion regulation, wellbeing, and performance.

²¹⁶ *See id.* at 282, 285.