

# **The Effect of Mediation on Mediators: How Neuroscience Shows Mediation Techniques Can Be Utilized to Improve Emotional Well-Being, Empathy, and Emotional Intelligence**

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## I. INTRODUCTION

Over the last two decades, neuroscience research has been integrated with legal analysis to deepen our understanding of many legal arenas, including mediation—an avenue used by disputing parties to solve problems outside of the courtroom.<sup>1</sup> Researchers have used neuroscience to understand how mediating parties interact with one another, why the parties act in the manner they do, and the neurobiological reactions that lead to dispute resolution outcomes.<sup>2</sup> Despite this burgeoning interest in the use of neuroscience to understand mediation and the disputing parties, the neuroscience community has only scarcely analyzed the neuroscientific impact on a key player in mediation—the mediator.

Therefore, this paper will analyze the neuroscientific effects of mediation on the mediator. I theorize that mediators' techniques used to reduce the effect of emotion and enhance the use of rational thoughts between disputing parties elicit positive neurological reactions in the mediators themselves. In addition, I theorize that mediators utilization of such techniques helps them develop positive emotional well-being, emotional intelligence, and empathy tactics that, in turn, aid in sorting through their own emotional and rational thoughts outside of the mediation context.

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<sup>1</sup> See Owen D. Jones et al., *Law and Neuroscience*, 33 J. NEUROSCIENCE 17624, 17624 (2013). Since the mid-1990s, the cumulative total of Law and Neuroscience publications have reached almost 1200 publications. These publications have offered insight into a variety of areas, including, but not limited to the neural basis of legal decision-making, a neural network model for punishment decisions, ethics in neuro-law, neuroscience-based predictions for future violent or criminal behavior, and neuroscience of current mental states, and more. The majority of these publications have focused on neuroscience's impact in a criminal context; however, in the last few years, there have been developments into civil and dispute resolution areas of law, as well. Law schools have also been catching up to this emergence by starting to offer classes in the interdisciplinary topic. See, e.g., *Law and Neuroscience*, HARV. L. SCH., <https://hls.harvard.edu/academics/curriculum/catalog/index.html?o=67679> (last visited Nov. 26, 2019); *Law and Neuroscience*, VAND. L. SCH., <https://law.vanderbilt.edu/courses/178> (last visited Nov. 26, 2019); *Criminal Law and Neuroscience*, COLUM. L. SCH., <https://www.law.columbia.edu/courses/sections/24158> (last visited Nov. 26, 2019).

<sup>2</sup> See Elizabeth Bader, *The Psychology and Neurobiology of Mediation*, 17 CARDOZO J. CONFLICT RESOL. 363, 364 (2016); Daniel Weitz, *The Brains Behind Mediation: Reflections on Neuroscience, Conflict Resolution, and Decision-Making*, 12 CARDOZO J. CONFLICT RESOL. 471, 472 (2011).

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### II. BACKGROUND

There has been little research conducted on the effects of the *mediator* outside of the mediation context. Only one area of mediation has been studied—peer mediation.<sup>3</sup> In peer mediation, the students are the mediators for their fellow peers during times of disputes.<sup>4</sup> Peer mediation helps students resolve issues in a constructive manner, which in turn supports social and emotional development.<sup>5</sup> Studies have shown a variety of benefits to the students who are involved.<sup>6</sup> Students are shown to benefit from increased academic success, improved interpersonal and inter-group relations, better communication, problem-solving skills, and less conflicts and violence against other students.<sup>7</sup> Considering the research on peer mediation, it is an easy assumption to make that mediations can also elicit similar positive effects on adult mediators.

Outside of peer mediation, the neuroscience behind how and why mediators are impacted has not been studied at length. A recent article written by Deborah Malizia and Jessica Katz Jameson outlines the possible benefits on the mediator through an inter-disciplinary approach—by studying peer mediation, social-emotional learning (mindfulness practices and emotion regulation support), and the overlap between mediator skills and brain functions that are essential to emotional well-being.<sup>8</sup> Specifically, Malizia and Jameson recognized that there is a “striking correspondence between the skills of mediators and the brain activity cultivated by six prefrontal cortex functions...essential to emotional well-being.”<sup>9</sup> By utilizing those prefrontal cortex functions during mediation, mediators increase their own emotional well-being as a consequence.<sup>10</sup>

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<sup>3</sup> “Peer mediation” is defined as a “process by which two or more students involved in a dispute meet in a private, safe and confidential setting to work out problems with the assistance of a trained student mediator.” The trained student mediator is one of their peers, so staff or other adults are not involved in the process. *What is Peer Mediation?*, THE RESOLUTION CENTER, <http://www.theresolutioncenter.com/peermediation/> (last visited Oct. 24, 2019).

<sup>4</sup> *Id.*

<sup>5</sup> Fulya Turk, *Evaluation of the Effects of Conflict Resolution, Peace Education and Peer Mediation: A Meta-Analysis Study*, 11 INT’L EDUC. STUD. 25, 26 (2018).

<sup>6</sup> Tricia S. Jones, *Conflict Resolution Education: The Field, the Findings, and the Future*, 22 CONFLICT RESOL. Q. 233, 239 (2004).

<sup>7</sup> *Id.*; Turk, *supra* note 5, at 26.

<sup>8</sup> See Deborah Malizia & Jessica Katz Jameson, *Hidden in Plain View: The Impact of Mediation on the Mediator and Implications for Conflict Resolution Education*, 35 CONFLICT RESOL. Q. 301, 303 (2018).

<sup>9</sup> *Id.* at 308.

<sup>10</sup> *Id.*

This paper continues the exploration of the idea that the emotional well-being of a mediator is enhanced due to the mediator's role in dispute resolution. Part III of this paper will focus specifically on how neuroscience helps us understand emotional well-being, empathy, and emotional intelligence. Part IV of this paper will discuss how mediators help parties in conflict situations compromise rationally through emotion processing and emotion-related techniques. Part V of this paper will explore the connection between the techniques used by mediators and the neural correlates of emotional well-being, empathy, and emotional intelligence. Finally, Part VI of this paper will examine the future implications of the neuroscientific benefits on mediators as a tool for increasing emotional well-being, empathy, and emotional intelligence outside of the mediation context.

### III. NEUROSCIENCE OF UNDERSTANDING EMOTION PROCESSING

The processing of conflicts is directly influenced by emotion and manipulated by a variety of factors, including individual differences in temperament, the individual's emotional state, and emotional stimuli.<sup>11</sup> Therefore, to develop an understanding of how individuals process and deal with conflict requires an understanding of emotion processing.

Emotion processing requires several cortical areas in the brain, including the prefrontal cortex,<sup>12</sup> the anterior cingulate cortex,<sup>13</sup> and the limbic system.<sup>14</sup> The interaction between these regions is important because it shows a connection through the anterior cingulate cortex between emotion processing (limbic system) and rational thinking and decision-making (prefrontal

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<sup>11</sup> Philipp Kanske, *On the Influence of Emotion on Conflict Processing*, 6 FRONTIERS IN INTEGRATIVE NEUROSCIENCE 1, 1–3 (2012).

<sup>12</sup> The prefrontal cortex takes part in the complex aspects of planning, organizing and executing behavior. The medial, orbitofrontal, and inferior areas of the prefrontal cortex play important roles in processing information about the self and others, emotion regulation, emotional decision-making, happiness, and well-being. Sandra Dolcos et al., *Neuroscience and Well-Being*, in HANDBOOK OF WELL-BEING 304, 305 (E. Diener, S. Oishi & L. Tay eds., 2018).

<sup>13</sup> The anterior cingulate cortex is connected to both the prefrontal cortex and the amygdala, playing an integrative role in emotion and self-monitoring. *Id.*

<sup>14</sup> The limbic system serves several functions, but for purposes of this paper it will be analyzed in terms of its function of emotion processing. Rand Swenson, *Ch. 9 – Limbic System*, REVIEW OF CLINICAL AND FUNCTIONAL NEUROSCIENCE (Dartmouth Medical School), [https://www.dartmouth.edu/~rswenson/NeuroSci/chapter\\_9.html](https://www.dartmouth.edu/~rswenson/NeuroSci/chapter_9.html) (last visited Mar. 22, 2019). Two areas of the limbic system will be focused on in this paper: (1) the amygdala, and (2) the insular cortex (or “insula”). *Id.*

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cortex).<sup>15</sup> The amygdala's function can be described as "emotional hijacking"; when this occurs, the prefrontal cortex acts to manage the emotions by "regulating and weighing reactions before acting on them."<sup>16</sup> The interactions between these brain regions have been studied numerous times in relation to emotional well-being. Studies have particularly focused on the importance of personality characteristics, emotional intelligence, and empathy in brain areas related to emotional well-being.<sup>17</sup>

### *a. Emotional Well-Being and Mindfulness*

Personality characteristics studied in the context of emotional well-being and its neural correlates include: (1) optimism or positive affective bias, (2) negative affective bias, and (3) mindfulness.<sup>18</sup> Optimism was found to increase emotional well-being through increased association<sup>19</sup> with the anterior cingulate cortex and amygdala.<sup>20</sup> Specifically, the anterior cingulate cortex's function of positive self-reflection allowed individuals to assess the salience of emotional information and analyze positive events versus negative events that may happen in the future, and the amygdala showed increased performance when imagining future positive events.<sup>21</sup> In addition, optimistic individuals tend to have positive affective biases,<sup>22</sup> which is also an indicator of improved well-being and the ability to cope well with stressors.<sup>23</sup> On the

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<sup>15</sup> Dolcos, *supra* note 12.

<sup>16</sup> Ahmad Alipour et al., *Emotional Intelligence and Prefrontal Cortex: A Comparative Study Based on Wisconsin Card Sorting Test*, 5 IRAN J. PSYCHIATRY AND BEHAV. SCI. 114, 115 (2011).

<sup>17</sup> See *id.*; Dolcos, *supra* note 12; Simone G. Shamay-Tsoory, *The Neural Bases for Empathy*, 17 THE NEUROSCIENTIST 18, 18 (2011).

<sup>18</sup> Dolcos, *supra* note 12, at 308. There were other traits considered during the study, but these three are the most relevant to mediation. *Id.* at 308–10, 314.

<sup>19</sup> Increased association and firing of brain areas indicate that the area of the brain is being used heavily in relation to the task at hand. If there is a conflict and the frontal and limbic (amygdala) portions are firing at a higher rate, then your brain is processing emotions and rational thinking.

<sup>20</sup> Dolcos, *supra* note 12, at 308.

<sup>21</sup> *Id.* at 308–309.

<sup>22</sup> "Positive affect[ive] [bias] leads to greater cognitive flexibility and facilitates creative problem solving." F. Gregory Ashby, Alice M. Isen & And U. Turken, *A Neuropsychological Theory of Positive Affect and its Influence on Cognition*, 106 PSYCHOL. REV. 529, 529–30 (1999).

<sup>23</sup> Dolcos, *supra* note 12, at 309. (citing Suzanne Stregstorm, *Optimism and Attentional Bias for Negative and Positive Stimuli*, 27 PERSONALITY & SOC. PSYCHOL. BULL. 1334 (2001)).

other hand, negative affective bias<sup>24</sup> was found to be an indicator of reduced well-being, because of its link to trait anxiety<sup>25</sup> and decreased use of the inferior frontal cortex.<sup>26</sup>

The personality characteristics research also found that mindfulness<sup>27</sup> was linked with improved well-being.<sup>28</sup> Mindfulness training programs aim to target skills to reduce distressing symptoms, increase body awareness, and influence brain responses when engaged in tasks that involve emotional stimuli.<sup>29</sup> Training your brain to act in a mindful manner not only improves well-being, but also decreases stress and trait anxiety while also increasing positive states of mind.<sup>30</sup> Research has shown the possibility that mindfulness can considerably change the structure of your brain over time, including expanding and creating new synapses, forming and better preserving neurons, increasing insulation of connections between neurons, and more.<sup>31</sup> In sum, engaging in mindfulness, optimism, and positive affective biases can improve your emotional well-being. In comparison, engaging in negative affective biases can decrease your emotional well-being.

### b. *Empathy*

Empathy has also been shown to activate areas in the brain that are related to emotional well-being.<sup>32</sup> Neurologically speaking, recent evidence shows two separate systems for empathy that work together: (1) emotional empathy, the ability to experience affective reactions to experiences around you, and (2) cognitive empathy, the cognitive capacity to engage in adopting

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<sup>24</sup> “Negative affective bias” may manifest as “enhanced sensitivity to negative or threatening information.” *Id.* at 309.

<sup>25</sup> “Trait anxiety” in individuals is characterized by the perception of certain environmental stimuli as threatening, such that “trait-anxious people often experience and express also state anxiety in situations in which most people do not experience such responses.” Yori Gidron, *Trait Anxiety*, in *ENCYCLOPEDIA OF BEHAVIORAL MEDICINE* 1989, 1989 (Marc D. Gellman & J. Rick Turner ed., 2013), [https://link.springer.com/referenceworkentry/10.1007%2F978-1-4419-1005-9\\_1539](https://link.springer.com/referenceworkentry/10.1007%2F978-1-4419-1005-9_1539).

<sup>26</sup> Dolcos, *supra* note 12, at 309.

<sup>27</sup> “Mindfulness” refers to “the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to the unfolding experience moment by moment.” *Id.* at 314 (internal quotations and citation omitted).

<sup>28</sup> *Id.*

<sup>29</sup> *Id.* at 314–15.

<sup>30</sup> *Id.* at 314.

<sup>31</sup> *Id.* at 315.

<sup>32</sup> Empathy is the “ability to share emotions as well as the ability to understand the other’s thoughts, desires, and feelings.” Simone G. Shamay-Tsoory, *The Neural Bases for Empathy*, 17 *THE NEUROSCIENTIST*, no. 1, 2011, at 18.

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another's psychological point of view.<sup>33</sup> Emotional empathy can be used to understand two sub-functions: "emotional contagion" and "empathy to pain."<sup>34</sup> The first, "emotional contagion," supports an individual's ability to empathize emotionally.<sup>35</sup> The emotional contagion system is a "state-matching" reaction where perceiving another's behavior automatically activates one's own representations for that behavior.<sup>36</sup> This behavior activates the inferior frontal gyrus, an area of the frontal cortex.<sup>37</sup> The second function of emotional empathy is "empathy to pain."<sup>38</sup> Perceiving pain in others creates a reaction of first-hand experience of pain, indicating that empathizing with people in pain is similar to what occurs when people feel pain themselves.<sup>39</sup> The empathic responses to pain can also be strengthened or weakened when considering contextual variables.<sup>40</sup> Neural activation for this perception is seen in the anterior cingulate cortex and insula.<sup>41</sup>

Cognitive empathy, on the other hand, involves higher-level functioning denoted as "theory of mind."<sup>42</sup> One subset of theory of mind is "affective theory of mind," which is an "emotional form of mentalizing" where individuals can make cognitive deductions about other individuals' emotions depending on the context.<sup>43</sup> Studies have shown that affective theory of mind involves self-reflection, likely because of the areas of the brain that are activated during situations where one has to make inferences about others' emotions.<sup>44</sup> Specifically, the ventromedial prefrontal cortex with its connections to the amygdala is a driving force in the emotional mentalizing of affective theory of mind.<sup>45</sup> The medial prefrontal cortex also involves autobiographical memory, or "our ability to recall knowledge of the past," which assists in affective theory of mind because recalling our own memories

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<sup>33</sup> *Id.*

<sup>34</sup> *Id.* at 19–21.

<sup>35</sup> *Id.* at 19.

<sup>36</sup> *Id.*

<sup>37</sup> *Id.*

<sup>38</sup> *Id.* at 20.

<sup>39</sup> *Id.*

<sup>40</sup> *Id.* at 21. Contextual variables for the purposes of this paper are the setting of a mediation when working closely with your disputing party to reach a solution, which can trigger perception and firsthand experiences of pain, leading to more empathic responses.

<sup>41</sup> *Id.* at 20.

<sup>42</sup> *Id.* at 21. "Theory of mind" is the "ability to put oneself into someone else's shoes, imagine their thoughts and feelings." *Id.* It also involves the ability to "extract and understand the goals of others by drawing on the capacity to understand the other's thoughts, intentions, emotions, and beliefs and predict their behavior." *Id.*

<sup>43</sup> *Id.*

<sup>44</sup> *Id.* at 21–22.

<sup>45</sup> *Id.*

stimulated by emotions allows for higher-level cognitive processing when perceiving and reacting to others' emotions and thoughts.<sup>46</sup> Although both the emotional empathy and cognitive empathy models function in different areas of the brain, the combination of activation in the anterior cingulate cortex, insula, and prefrontal cortex show that empathic responses activate neural areas related to emotional well-being.

### c. *Emotional Intelligence*

Emotional intelligence<sup>47</sup> has also been studied in relation to better prefrontal cortex functions.<sup>48</sup> The prefrontal cortex is a crucial component for emotional intelligence because of its connection to the limbic system, specifically the amygdala.<sup>49</sup> One study found that performance in a high-emotional intelligence group for specific tasks was better than performance in a low-emotional intelligence group, indicating better prefrontal cortex function in the high-emotional intelligence group.<sup>50</sup> In addition, the poorer performance by the low-emotional intelligence group showed that prefrontal cortex damage can result in social incompetence, decreased sensitivity to social and situational stimuli, and interpersonal interaction problems.<sup>51</sup> To conclude, higher emotional intelligence, linked to higher prefrontal cortex function, allows individuals to monitor feelings, use those feelings to guide their thinking and action, and know when and how to properly express emotions—in other words, an understanding of self-awareness.<sup>52</sup>

The neural correlates to emotion processing show that increased function of the prefrontal cortex, anterior cingulate cortex, and limbic system manifest in positive personality traits, high emotional intelligence, and empathic behaviors, which in turn lead to emotional well-being and self-awareness. In conflicts, individuals' emotions are on high alert. With positive emotion processing traits, individuals can use their prefrontal cortex functions of rational thinking and decision-making to use emotions to influence, but not

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<sup>46</sup> *Id.* at 22.

<sup>47</sup> "Emotional Intelligence" is a construct created to explain human behavior. Alipour, *supra* note 16, at 114. It is a "set of competencies that enable us to engage in sophisticated information processing of emotions and emotion-relevant stimuli and to use this information as a guide for thinking and behavior." *Id.* There are two key components: (1) Strategic: "competency to understand . . . and manage emotions," and (2) Experiential: "competency to perceive . . . and use . . . emotions." *Id.*

<sup>48</sup> *Id.*

<sup>49</sup> *Id.* at 115.

<sup>50</sup> *Id.* at 117.

<sup>51</sup> *Id.*

<sup>52</sup> *Id.* at 114–15.



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completely hijack, decisions. In addition, perception of others' emotions and thoughts during conflicts leads to empathic behaviors which can rationalize the context and situation. Both your own emotion processing of the situation and your perception of the other viewpoint in a situation are not only related to emotional well-being but are the essential foundations of mediating a conflict.

### IV. HOW MEDIATORS HELP DISPUTING PARTIES COMPROMISE RATIONALLY THROUGH EMOTION PROCESSING AND RELATED TECHNIQUES

*“Freed from the burden of unexpressed emotions, people will become more likely to work on the problem.”<sup>53</sup>*

When two parties are in a dispute, a mediator guides both parties by eliciting rational thinking and decision-making to come to a compromise or solution, rather than allowing the parties' emotions to hijack the situation. One could say that mediators are the role models for rational thinking and emotional regulation during these mediations. In order to serve as role models, the mediators have to use their own rational thoughts and actions to “model” a reasonable and balanced mediation.

#### A. *Mediator Techniques Involving Emotional Well-Being and Mindfulness*

The American Bar Association Section of Dispute Resolution Task Force on Research on Mediator Techniques recently conducted a study on the effect of mediator techniques and actions on the outcome of the mediation.<sup>54</sup> The Task Force found four categories of techniques that had great potential to increase the probability of settlement and improve party relations.<sup>55</sup> The four categories are: (1) eliciting disputants' suggestions or solutions; (2) giving more attention to disputants' emotions, relationships, and sources of conflict;

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<sup>53</sup> Morna Barsky, *Emotional Needs and Dysfunctional Communication as Blocks to Mediation*, 1983 MEDIATION QUARTERLY 55, 57 (citing ROGER FISHER & WILLIAM URY, GETTING TO YES: NEGOTIATING AGREEMENT WITHOUT GIVING IN (1st ed., Houghton Mifflin 1981)).

<sup>54</sup> AM. BAR ASS'N SEC. OF DISPUTE RESOL., REP. OF THE TASK FORCE ON RES. ON MEDIATOR TECHN. 1 (2017).

<sup>55</sup> *Id.* at 1, 4 (The Task Force studied seven total categories of mediator actions, but only four of them were found to indicate increased probability of settlement and improved party relations).

(3) working to build trust and rapport, expressing empathy or praising the disputants, and structuring the agenda; and (4) using pre-mediation caucuses focused on establishing trust.<sup>56</sup> Of these four, the second category is related to this paper's focus on mediators' use of emotions in mediation and will be further analyzed.

When studying the second category of techniques, the Task Force found that when mediators gave more attention to disputants' emotions, relationships, and sources of conflict, settlement could be more likely.<sup>57</sup> This technique required mediators to create a "problem-solving" environment to help understand the relevant sources of conflicts and the party's circumstances.<sup>58</sup> The mediator then helps facilitate a conversation as to a possible solution by creating an open conversation that facilitates conflict resolution, rather than attempting to control or stifle emotions.<sup>59</sup> As opposed to a "settlement-oriented" environment where the mediator is mostly concerned with getting a settlement, a problem-solving environment creates personalized, well-thought-out solutions.<sup>60</sup> Disputing parties who mediate in this style are also likely to have better relationships, take responsibility, and have better conversations about their concerns.<sup>61</sup>

### B. Mediator Techniques Involving Empathy

Mediation techniques also involve awareness of both sides and understanding the intricacies of conflicts. First, mediators must be aware of their own emotions before applying any tactics for managing the emotions of other people.<sup>62</sup> Good mediators that are in touch with their emotions can make their emotions subtle but explicit during the dispute resolution to facilitate conversation. For example, a good mediator may say, "I'm feeling somewhat confused at the moment, could you please help to clarify a few things for me . . ."<sup>63</sup> In addition, if the disputing parties are displaying a lot of emotions, the mediator could talk about themselves rather than the other party — "I don't

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<sup>56</sup> *Id.* at 4.

<sup>57</sup> *Id.* at 33–34. In some studies, it was found that this technique either did not affect settlement or reduced settlement. However, in most studies, settlement was more likely when this mediation technique was introduced.

<sup>58</sup> *Id.* at 34.

<sup>59</sup> *Id.* at 34–35.

<sup>60</sup> *Id.*

<sup>61</sup> *Id.* at 36.

<sup>62</sup> CARL LYONS, *I WIN, YOU WIN: THE ESSENTIAL GUIDE TO PRINCIPLED NEGOTIATION*, Ch. 3 – Communication (2012).

<sup>63</sup> *Id.*

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feel understood” rather than “you don’t understand me.”<sup>64</sup> By being in touch with their own emotions, mediators can facilitate emotion-heavy conflicts to rational solutions.

Second, mediators should also be able to step into the shoes of their clients by keeping an open mind to try to understand why the parties are acting the way they are.<sup>65</sup> By moving out of the position of an independent observer, mediators can have insight into the parties’ thinking, which creates understanding that can help the mediating strategy and overall outcome of the resolution.<sup>66</sup> The mediator’s ability to improve the “emotional environment” of the mediation is a key element in facilitating a settlement.<sup>67</sup>

### C. Mediator Techniques Involving Emotional Intelligence

However, mediators should not let their empathic techniques amount to sympathy by having their own feelings and values triggered by the issues in the mediation.<sup>68</sup> There is a subtle balance of mediators being in touch with their own emotions during the mediation and mediators stepping into the shoes of their clients and empathizing with their situation.<sup>69</sup> If the mediator disrupts this delicate balance, the clients may view the mediator’s role as sympathizing or having a bias toward one party, thus heightening the potential of the parties not coming to a resolution.<sup>70</sup> In order to balance these two interests, mediators can use their “emotional intelligence.”<sup>71</sup> Emotional intelligence is the balance of self-awareness and self-regulation.<sup>72</sup> Emotional self-awareness alerts a mediator to feelings that may create bias in the resolution, and emotional self-regulation stops those feelings from being expressed in a manner that could negatively affect the path to resolution.<sup>73</sup>

Mediators who are aware of and possess emotional intelligence during the course of the mediation process can successfully understand the emotions

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<sup>64</sup> *Id.*

<sup>65</sup> *Id.* at Ch. 1; ROGER FISHER, ET AL., *GETTING TO YES: NEGOTIATING AGREEMENT WITHOUT GIVING IN* 24–27 (3d ed. 2011).

<sup>66</sup> LYONS, *supra* note 62, at Ch. 1 – Focus on Values and Interests, Not Positions.

<sup>67</sup> James Duffy, *Empathy, Neutrality and Emotional Intelligence: A Balancing Act for the Emotional Einstein*, 10 QUEENSL. U. OF TECH. L. & JUST. J. 44, 46 (2010).

<sup>68</sup> *Id.* at 47.

<sup>69</sup> *Id.* at 47, 53.

<sup>70</sup> *Id.*

<sup>71</sup> *Id.* at 57. Duffy defines “emotional intelligence” as: “the intelligent use of emotions—an individual develops awareness of their emotions and uses them to beneficially aid their thinking and behaviour.” *Id.*

<sup>72</sup> *Id.* at 58.

<sup>73</sup> *Id.* at 60.

of mediating parties.<sup>74</sup> First, mediators must be able to accurately notice changes in the expressions or emotions of participants.<sup>75</sup> Next, the mediators must re-direct attention to important issues to reason with emotions.<sup>76</sup> Then, the mediator has to understand how to connect those individual emotional reactions to a successful settlement by interpreting the causes of the emotions.<sup>77</sup> Finally, the mediator has to manage his or her own emotions by listening, showing they understand the parties' perspectives, and showing empathy.<sup>78</sup> In total, these actions represent a mediator with high emotional intelligence; in other words, demonstrating the *je ne sais quoi* of great mediators.<sup>79</sup>

There are many facets that come together to create a successful mediator—all related to emotion processing. Giving attention to emotions, expressing empathy, high emotional intelligence, and being aware of your own emotions are all skills that mediators develop over time to facilitate successful conflict resolutions.

#### V. CONNECTION BETWEEN NEURAL CORRELATES OF EMOTION PROCESSING AND MEDIATORS' USE OF EMOTION-RELATED TECHNIQUES

The emotion processing and related techniques used by mediators to lead successful mediations correlate to functions of the prefrontal cortex,

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<sup>74</sup> Courtney Chicvak, *Concretizing the Mediator's Je Ne Sais Quoi: Emotional Intelligence and The Effective*, 7 AM. J. MEDIATION 1, 2 (2013–14). Chicvak defines “emotional intelligence” as: “the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth.” *Id.* Emotional intelligence has four sub-branches: (1) emotional perception and expression, (2) emotional facilitation of thought, (3) emotional understanding, and (4) emotional management. *Id.* at 2, 5 (citing PETER SALOVEY & JOHN D. MAYER, EMOTIONAL INTELLIGENCE: KEY READINGS ON THE MAYER AND SALOVEY MODEL 35 (Peter Salovey et al. eds., 2004)).

<sup>75</sup> *Id.* at 8–9.

<sup>76</sup> *Id.* at 9.

<sup>77</sup> *Id.* at 10.

<sup>78</sup> *Id.*

<sup>79</sup> *Id.* at 15. *Je ne sais quoi* is defined as “something (such as an appealing quality) that cannot be adequately described or expressed.” *Je ne sais quoi*, MERRIAM-WEBSTER DICTIONARY, <https://www.merriam-webster.com/dictionary/je%20ne%20sais%20quoi> (last visited Oct. 21, 2019). Chicvak uses the term *je ne sais quoi* to underlay her theory that “the missing link, or ‘*je ne sais quoi*,’ that allows mediators to develop . . . viable careers in the area of mediation, is a mediator’s awareness of and possession of emotional intelligence during the course of the mediation process.” *Id.* at 2.

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anterior cingulate cortex, and amygdala.<sup>80</sup> Together, the neural correlates and mediator techniques show a larger picture—one where the repeated techniques used by mediators continually facilitate the use of areas of the brain linked to emotional well-being, empathy, and self-awareness.

### A. *Emotional Well-Being and Mindfulness in Mediation*

First, the neural correlates of emotional well-being and mindfulness align with the mediator techniques from the American Bar Association.<sup>81</sup> The emotion-related mediator techniques that proved effective in encouraging disputing parties to problem solve creatively by working through their emotions is similar to emotional well-being personality characteristics of positive affective bias and optimism.<sup>82</sup> Mindfulness is also similar to the emotion-related mediator techniques. Mediators have to form non-judgmental, rational thoughts while paying attention to the interactions between and within the individuals involved in the mediation.<sup>83</sup> Mindfulness teaches individuals to be aware of their interactions with others and non-judgmentally handle experiences.<sup>84</sup> Therefore, the neural correlates of emotional well-being and mindfulness create responses in individuals that are similar to the techniques that mediators utilize in mediations.

### B. *Empathy in Mediation*

Second, the neural correlates of empathy relate to mediation techniques where mediators can step into the shoes of the parties to get a different perspective of the emotions at play and then use that understanding to facilitate rational conversations to get to a solution.<sup>85</sup> Emotional empathy directly correlates to mediators understanding their emotion processing when being involved in a mediation. Although the mediator is not a party to the mediation, mediators have to be aware of their own thoughts, emotions, and biases during the mediation.<sup>86</sup> This is similar to the emotional contagion

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<sup>80</sup> Section V incorporates the research from Sections III and IV to prove the thesis that neural correlates help explain the positive effects of mediation training.

<sup>81</sup> See AM. BAR ASS'N SECTION OF DISPUTE RESOLUTION, *supra* note 54; Dolcos, *supra* note 12, at 308.

<sup>82</sup> Ashby, *supra* note 22; Dolcos, *supra* note 12, at 308.

<sup>83</sup> AM. BAR ASS'N SECTION OF DISPUTE RESOLUTION, *supra* note 54, at 35.

<sup>84</sup> Dolcos, *supra* note 12, at 315.

<sup>85</sup> See LYONS, *supra* note 62, at Ch. 1 – Focus on Values and Interests, Not Positions. See also FISHER, *supra* note 65.

<sup>86</sup> See LYONS, *supra* note 62, at Ch. 3 – Communication.

system of emotional empathy, where perceiving others in a conflict situation creates a “state-matching” reaction in yourself, so you are aware of how others feel in that situation.<sup>87</sup> In addition, if the mediation is related to a particularly painful situation, mediators can empathize to the pain by feeling the pain themselves. Cognitive empathy and theory of mind, then, directly correlates to mediators’ awareness of how the parties feel themselves by stepping into their shoes.<sup>88</sup> In fact, one definition of theory of mind is “the ability to [step] into someone else’s shoes,” which is a theory used by mediators<sup>89</sup> to be able to move the disputing parties toward a resolution.

### C. *Emotional Intelligence in Mediation*

Third, the neural correlates of emotional intelligence show that mediators with high emotional intelligence can facilitate mediations effectively because of their understanding, management, and regulation of their own emotions.<sup>90</sup> The push and pull of the competing interests of emotional self-awareness and emotional self-regulation<sup>91</sup> exemplify the push and pull of the amygdala, the emotional center of the brain, and the pre-frontal cortex, the rational, decision-making area of the brain.<sup>92</sup> Neuroscience research shows how the pre-frontal cortex minimizes the emotions transmitted by the amygdala, leading to a higher level of self-awareness and emotional regulation.<sup>93</sup> Mediators who keep the balance of self-awareness and self-regulation of emotions are repeatedly utilizing this neuronal connection, which leads the brain to learn better emotional regulation.<sup>94</sup>

The use of emotional intelligence is also especially effective during the mediation in relation to the disputing parties, because it can be the difference between mediators who can lead a party to an effective resolution and mediators who cannot come to a solution with their parties. This is

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<sup>87</sup> Shamay-Tsoory, *supra* note 17, at 19.

<sup>88</sup> *Id.* at 21.

<sup>89</sup> *Id.*; FISHER, *supra* note 65.

<sup>90</sup> Alipour, *supra* note 16, at 114–17; *see also* LYONS, *supra* note 62, at Ch. 3 – Communication.

<sup>91</sup> Duffy, *supra* note 67, at 60.

<sup>92</sup> Alipour, *supra* note 16, at 115.

<sup>93</sup> *Id.*

<sup>94</sup> Brett Wingeier, *What Processes are Taking Place in our Brains When We Learn New Things?*, FORBES (Jan. 26, 2018), <https://www.forbes.com/sites/quora/2018/01/26/what-processes-are-taking-place-in-our-brains-when-we-learn-new-things/#73ba7e3c51f9>. Repeated firing of neurons, as seen through practice and repetition, in certain areas trigger learning mechanisms in the brain, which causes the brain to absorb the information and learn those behaviors.

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especially noticeable with “experiential” emotional intelligence, or the ability to perceive emotions and then use them to your benefit.<sup>95</sup> By perceiving how the disputing parties are acting toward each other throughout the mediation, the mediator can target the conversation toward areas that seem to be amicable areas to resolve between the parties, can re-focus the conversation when parties seem to be veering off track emotionally, and can use the perception of how the parties interact with each other to know how and when to push the parties toward a resolution. These techniques are the *je ne sais quoi* of successful mediators,<sup>96</sup> because it is hard to teach perception and emotional competency in a mediation course.

As mediators are repeatedly conducting techniques that require use of brain areas involved in developing emotional well-being, emotional intelligence, and empathy, mediators are unwittingly developing positive emotion-related behaviors. The repeated actions of performing existing behaviors strengthens the current connections of neurons in the areas of the brain that are in use.<sup>97</sup> The stronger the connections in areas of the prefrontal cortex, anterior cingulate cortex, and amygdala result in the strengthening of the characteristics of emotional well-being, empathy, and self-awareness. Therefore, mediators who use those emotion-related techniques in their mediations are subconsciously adapting their brain to develop better emotion regulation behaviors.

## VI. FUTURE IMPLICATIONS

The positive emotion processing tactics that mediators develop as a result of their continued practice of mediation can be used to assist individuals generally outside of the mediation context. If mediation training can be adapted to courses and activities for any individual, another avenue is opened to help individuals increase their own emotional well-being.

One group of individuals that would benefit from practiced emotional well-being are those with stress, anxiety, and/or depression. Although colloquially spoken about as affecting almost every individual at some point during their lives, anxiety and/or depression disorders plague the ability of certain individuals to the point of non-functioning on a daily basis. These disorders can partially be attributed to negative feelings about the self, negative emotions, and inability to experience positive matters. The symptoms manifest due to disturbances in the structure and function of brain areas involved in emotional well-being that reduce your ability to experience

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<sup>95</sup> Alipour, *supra* note 16, at 114.

<sup>96</sup> See Chicvak, *supra* note 74, at 2; *Je ne sais quoi*, *supra* note 79.

<sup>97</sup> See Wingeier, *supra* note 94.

positive emotions and pleasure.<sup>98</sup> Studies have shown that these structure and function disturbances are related to a decreased use of frontal lobe regions, including the orbitofrontal cortex and anterior cingulate cortex, and altered connections in brain regions related to emotion processing.<sup>99</sup>

One group of individuals that have higher than average rates of depression and/or anxiety are law students. As this paper researches the intersection of neuroscience and a legal field, it seems fitting to evaluate how law students can be positively affected by the research. Attending law school is always more stressful than new students can imagine. What many law students do not prepare for are the soaring rates of depression and anxiety that are either exacerbated from previous conditions or developed while in law school.

One study conducted in 2014 surveyed 3,000 law students from 15 law schools and found that 18% had been diagnosed with depression.<sup>100</sup> Even more stunning, one in six of those students diagnosed with depression were diagnosed after starting law school.<sup>101</sup> Comparatively, the Center for Disease Control and Prevention recently published data from 2013–2016 that 8.1% of American adults aged 20 or older had depression in a given two-week period.<sup>102</sup> So, law students are diagnosed with depression at over two times the national rate. Unfortunately, the high rate of depression among law students only gets exacerbated throughout their career as lawyers. A 2016 study of 12,825 licensed lawyers concluded that a whopping 28% of the profession was experiencing symptoms of depression.<sup>103</sup> That number is three and a half times the national rate.<sup>104</sup>

Law students also, unsurprisingly, have high rates of anxiety. A study surveying 3,000 law students found that 37% of them screened positive for anxiety and 14% of them met the definition for severe anxiety.<sup>105</sup> Statistics from the Anxiety and Depression Association of America state that the

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<sup>98</sup> Dolcos, *supra* note 12, at 307.

<sup>99</sup> *Id.* at 5.

<sup>100</sup> Karen Sloan, *Law Schools Tackle Mental Health*, NAT'L L. J. (May 9, 2016), <https://www.law.com/nationallawjournal/almID/1202757012950/Law-Schools-Tackle-Mental-Health/>.

<sup>101</sup> *Id.*

<sup>102</sup> Debra J. Brody et al., *Prevalence of Depression Among Adults Aged 20 and Over: United States, 2013–2016*, CTRS. FOR DISEASE CONTROL & PREVENTION (Feb. 2018), <https://www.cdc.gov/nchs/data/databriefs/db303.pdf>.

<sup>103</sup> Patrick Krill et al., *The Prevalence of Substance Use and Other Mental Health Concerns Among American Attorneys*, 10 J. ADDICTION MED. 46, 51 (2016).

<sup>104</sup> Brody, *supra* note 102.

<sup>105</sup> Sloan, *supra* note 100.



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national average is approximately 18% for anxiety.<sup>106</sup> Thus, the law student rate of anxiety is two times higher than the national rate. Law students continue to suffer from anxiety as lawyers at a rate of approximately 19%.<sup>107</sup> When looking at lawyers who have experienced anxiety sometime during their career, the rate jumps to a staggering 61%.<sup>108</sup>

Because of the stark uprising in depression and anxiety rates, coupled with the knowledge that law students and lawyers experience these disorders at rates many times the national average, the American Bar Association recently adopted a resolution urging law firms, law schools, and other agencies to take action to address these mental health issues.<sup>109</sup> This article's thesis regarding the positive benefits of mediation training could suggest that law schools already have the answer in their curriculum. Many law schools offer mediation training and many lawyers have to take part in mediation training and/or mediations throughout their career. However, they are not given the tools to apply those tactics to facilitate positive changes in their own lives.

Based on the research and intersectionality between neuroscience, mediation training, and emotional well-being, there is an open avenue for mental health professionals to encourage mediation training as a coping mechanism for individuals affected by low emotional well-being. Community programs and schools can create courses that target mediation tactics and techniques to teach individuals how to view their problems from a third-party rational perspective. These courses can start with a model based on peer mediation and work towards teaching students to act like their own mediators when it comes to their own mental health needs.

An example of a mediation-type activity that can be introduced for individuals with depression is as follows—have the individual imagine themselves in the third person as a mediator. Next, ask the individual to visualize their “recurring negative thoughts” and “thoughts they should focus on to engage in daily activities” as two conflicting “parties.” The individual, as a mediator, must aid and balance those two conflicting “parties” to come to a good resolution. Thus, when taking this third-person perspective, an individual acting as a mediator may be able to make the decision between their recurring negative thoughts and their rational thoughts needed to focus on engaging in daily activities, creating a positive step toward emotional well-

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<sup>106</sup> *Facts and Statistics*, ANXIETY & DEPRESSION ASS'N OF AM., <https://adaa.org/about-adaa/press-room/facts-statistics> (last visited Oct. 6, 2019).

<sup>107</sup> Krill, *supra* note 103.

<sup>108</sup> *Id.*

<sup>109</sup> *Resolution 105*, A.B.A. (Feb. 5, 2018), <https://www.americanbar.org/content/dam/aba/images/abanews/2018-AM-Resolutions/105.pdf>.

being. Performing this type of exercise clearly elaborates how the techniques used by mediators lead to better emotional well-being, even outside the mediation context.

Another draw of mediation training as an intervention technique for stressed, anxious, or depressed individuals is its accessibility. There is a growing body of evidence that successful prevention approaches to these disorders primarily involve versions of cognitive-behavioral therapy (CBT).<sup>110</sup> However, CBT therapies are not readily available for individuals that may benefit from them.<sup>111</sup> As many as four out of five young children and adolescents who could profit from the assistance of CBT therapies are unable to access it, because of several barriers including demand, stigma, costs and insurance coverage, and geographic difficulties.<sup>112</sup> One study explored alternative formats for CBT therapies, but still recognized the clear need for future studies to explore how the alternative therapies are effective at both helping patients and increasing accessibility.<sup>113</sup> With these accessibility issues still unsolved, medical professionals could turn to the more readily accessible mediation training as an intervention tactic for their patients who are unable to access CBT therapies. In addition, mediation training courses that are currently available could be reformed to include techniques to improve emotion processing and conflict resolution skills. Therefore, mediation training serves to not only provide an effective way of intervening with conflicting stressful, anxious, or depressive thoughts, but also can be a means for young patients to work toward better emotional well-being without bearing

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<sup>110</sup> Michael Silverstein et al., *Problem-Solving Education to Prevent Depression Among Low-Income Mothers*, JAMA NETWORK OPEN (June 29, 2018), <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2686036>. One version of CBT therapy that is similar to mediation training is “problem-solving therapy” (PST). Pim Cuijpers et al., *Problem-Solving Therapy for Adult Depression: An Updated Meta-Analysis*, 48 EUR. PSYCHIATRY 27, 27 (2018). PST “focuses on training in adaptive problem-solving attitudes and skills and is aimed at reducing and preventing psychopathology, and at enhancing positive well-being by helping individuals cope more effectively with stressful problems in daily life.” *Id.* at 27–28. However, despite the similarities between the end goals of PST and mediation training, PST has the same accessibility and low effectiveness issues that many CBT therapies pose. *Id.*

<sup>111</sup> Marthinus J. Bekker et al., *Improving Accessibility of Cognitive Behavioural Therapy for Children and Adolescents: Review of Evidence and Future Directions*, 21 CLINICAL PSYCHOLOGIST 157, 157–158 (2017); James Cartreine, *An Approach to Therapy that May Make Depression Treatment More Accessible*, HARV. HEALTH PUB. (Aug. 29, 2016), <https://www.health.harvard.edu/blog/an-approach-to-therapy-that-may-make-depression-treatment-more-accessible-2016082910174>.

<sup>112</sup> Bekker, *supra* note 111, at 158.

<sup>113</sup> *Id.* at 157.

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as much cost or dealing with the stigma associated with mental health treatments.

### VII. CONCLUSION

There is a wide array of benefits in analyzing the effects of mediation on the mediator through a neuroscience perspective. The neuroscience of emotional intelligence, empathy, and emotional well-being provides a wealth of untapped information in relation to positive mediator techniques during mediations. Finally, the intersectionality benefits can translate into future therapeutic interventions using mediation training as a tool for individuals who suffer from stress, anxiety, and/or depression.

