# EMBODIED LEADERSHIP: SKILLS FOR THE FOURTH INDUSTRIAL REVOLUTION

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**Abstract**

According to Schwab (2016), the fourth industrial revolution resulting from digital disruption is evolving at an exponential rather than linear pace as compared to previous ones. As this evolution occurs, it is important to shape this revolution to ensure that it is empowering, life-centered, and not divisive and dehumanizing (Schwab, 2016). This is the work of leadership. The purpose of this paper is to establish the value of Body Studies in the area of leadership and leadership development through review of relevant literature on embodiment and applied discussion of how embodied leadership and mindfulness are incorporated into a graduate-level classroom as well as practiced by this researcher in her own lived experiences of teaching and leading. To deal with the complex challenges of the 21st century, new ways of knowing and leading will become increasingly important, and new pedagogies adopted to meet the needs of developing embodied leaders. In the fourth industrial revolution, leaders will need to be more agile and human-centric in order to adapt to a highly volatile, uncertain, complex, and ambiguous (VUCA) world. Ultimately, the challenges of the fourth industrial revolution may create opportunities for leaders to connect more readily with the wisdom of bodily knowledge to facilitate the change and transformation needed to build a sustainable future.

*Keywords:* embodied cognition, embodied knowledge, embodied leadership, fourth industrial revolution, lived experience, mindfulness, pedagogy, transformative learning, ways of knowing.

**Introduction**

According to Schwab (2016), the fourth industrial revolution resulting from digital disruption is evolving at an exponential rather than linear pace as compared to previous ones. It is not only changing the "what" and the "how" of doing things but also "who" we are. Developing agility will rely as much on employee motivation and communication as on setting business priorities and managing tangible assets, and companies that survive and even thrive will need to hone an innovative edge by adopting a mindset of "always evolving" (Schwab, 2016). As this evolution occurs, it is important to shape this revolution to ensure that it is empowering, life-centered, and not divisive and dehumanizing (Schwab, 2016). This is the work of leadership.

Growing concerns about the fourth industrial revolution are that as we increase our relationship to and reliance on technology such as cell phones, it may negatively affect our interpersonal skills and ability to empathize. Although we are always connected, we may not take time to pause, reflect, or engage in meaningful conversations that develop our skills to listen well, make eye contact, and attend to nonverbal communications. In other words, we become increasingly disconnected and even disembodied from our experiences with others as we remain in a state of perpetual motion and being overwhelmed due to staying "connected" constantly through our digital instruments. To counter this trend, this evolution will also require social and creative skills, particularly decision-making in uncertain conditions and the development of new ideas (Schwab, 2016). In the context of the increasing velocity of disruption and the acceleration of innovation resulting from new technologies, leaders will need to continually learn, adapt and challenge their own conceptual and operating models of success (Schwab, 2016). To do this, leaders will need to step back, take time to pause, reflect, and reconnect with their own bodies to remain grounded in a digital world that constantly demands their attention.

As the evolution towards this fourth industrial revolution continues, a need for new ways of leading will become increasingly important (World Economic Forum, 2019).

Schwab emphasizes the need to make explicit the values and ethical principles that future systems must embody. This holds true for leaders who oversee organizations and systems as well. He proposes that applying and harmonizing multiple intelligences including contextual (the mind), emotional (the heart), inspired (the soul), and physical (the body) will enable leaders to adapt, shape and harness the potential disruption of this fourth industrial revolution. For this reason, an emphasis on embodiment in leadership and developing this capability to embody leadership effectively are essential. Faculty in higher education can assist in fulfilling this need for embodied leaders through assignments and activities that encourage self-reflection and an emphasis on how students embody their leadership roles.

The purpose of this paper is to establish the value of Body Studies in the area of leadership and leadership development; it does so first through review of relevant literature on embodiment in higher education and corporations and then, against this backdrop, a discussion of how embodied leadership is both incorporated into a graduate-level classroom and practiced by this researcher in her own lived experiences of teaching and leading. The paper is organized with a brief review of literature on embodiment theory, application of embodied leadership pedagogy in the classroom, a short autoethnographic account of my experience with embodied leadership, and implications for future research and practice. Ultimately, the aim of this paper is to stimulate thinking about the importance of developing embodied leadership by incorporating different pedagogical approaches in both academic and corporate classrooms.

**Literature Review on Embodiment**

**Ways of Knowing**

Knowledge is embodied and perceived through the body as humans perceive the world through it as lived experience (Merleau-Ponty, 1958). Yet, as Barbour (2004) and Lawrence et al. (2013) lament, Western knowledge is based on a dualistic separation of mind and body or knowledge and experience with an overemphasis on the value of cognitive or rational ways of knowing to the deliberate

exclusion of embodied ways of knowing such as lived experiences. As cited by Barbour (2004), Flax discusses the experience of never encountering another person without a body or knowledge that existed with an embodied knower. In the past, much of the research into Western knowledge systems was based on ways of knowing focused on the embodied experiences of men, and typically those of white men. In response to this, Belenky et al. (cited in Barbour 2004) conducted interviews of women to understand their epistemological perspectives and to provide a more balanced view into ways of knowing. One of the five perspectives identified by these women included constructed knowledge or a view that all knowledge is contextual, and woman (or any person) experiences herself as a creator of knowledge, appreciating both her own and objective strategies for knowing learned from others. Individuals seeking constructed knowledge were self-reflective and self-aware, possessed a high tolerance for ambiguity, were aware of the inevitability of conflict, and desired to share their knowledge in their own way (Barbour, 2004). Building from her exploration of alternative ways of knowing in her context of women's solo contemporary dance-making, Barbour conceptualizes an additional epistemological strategy of *embodied knowledge* or a view that a "person views all knowledge as contextual and embodied, and a person experiences him/herself as creator of and as embodying knowledge, valuing his/her own experiential ways of knowing and reconciling those with other strategies of knowing as s/he lives out her/his life" (p. 234). In this way, an individual using embodied ways of knowing understands knowledge both as constructed and as something that is embodied, experienced, and lived (Barbour, 2004).

In another departure from dualistic views of ways of knowing and cognitivist approaches that neglect the influence of the body in cognitive sciences (Marshall, 2016) advocates of embodied cognition theorize that the brain's information processing capacity cannot be separated from the body's capacity to sense and feel for sensemaking purposes (O'Malley et al., 2009) or how the world comes to have meaning for individuals through embodied actions (Marshall, 2016). According to embodied cognition, "physical states, perceptual structures, and motor systems that accompany knowledge creation are incorporated into knowledge itself" (O'Malley et al., 2009, p. 154). An example is how public speakers or politicians use their non-verbal behaviors to convey their message more effectively and influence the perceptions of their audiences (O'Malley et al., 2009). Further, embodied cognition contends that knowledge is attached to internal (e.g., emotions interacting with others) and external contexts (e.g., aspects of the physical environment) and that individuals integrate both cognitive and affective sources of information when creating interpretations of their environments (O'Malley et al., 2009). This integration can be observed when employees review messages from management about distressing decisions like impending layoffs and employees respond affectively and through bodily reactions such as a racing heart (O'Malley et al., 2009). Both cognitive and affective spheres are integrated in the experience of receiving these messages from management. The implication is that organizational leaders must heed the role of embodied processes to become effective sensegivers by recognizing the impact of their nonverbal communications as their behaviors may alter the meaning of their words and actions as perceived by their followers (O'Malley et al., 2009). In other words, how messages are embodied and delivered are as important to sensemaking by followers as the content of the leader's messages. Interestingly, a leader who feels it is inappropriate to express emotions could limit sensemaking in followers who rely on emotional cues to interpret situations; therefore, it is important to educate leaders that their nonverbal behaviors can influence their follower's sensemaking abilities.

Ultimately, as relates to sensemaking in an increasingly volatile, uncertain, complex, and ambiguous (VUCA) world, the ability to draw from multiple sources of knowing to make effective and efficient decisions becomes essential for future leaders. The key to accessing these multiple sources of knowing lies in the adoption of embodied approaches to learning and leading.

**Embodied Leadership**

Despite the value of embodied approaches in the development of multiple means of knowing and perception, Ropo and Parvianinen (2001) observe that mainstream management and organization theories fail to recognize the importance of body awareness in workplaces. The authors ask whether leaders listen to the voices of their bodies or are aware of stress symptoms within their own bodies as well as those of other organizational members; they further emphasize the need for appreciating the role of the body "as an acquirer and carrier of leadership knowledge" (Ropo and Parvianinen, 2001, p. 3). Through two case studies of Australian leaders who led major changes, Sinclair (2005) purports that leadership is observed as a bodily practice and physical performance at visceral and sensual levels, both dimensions largely overlooked in business writing and treated as degendered and disembodied by typical leadership research, which overemphasizes leadership as vision and charisma. Traditional leadership scholars fail to recognize that the practice of leadership is embodied through words and deeds and how we lead or influence change through our bodies. Stated in simpler terms, our leader presence or how we intentionally show up every day and use ourselves to lead change in organizations matters. Dr. Amy Cuddy, in her popular TedTalk (2012) discusses how our communication impact is based 7% on the content of what we say, and 93% on our presence or "being," which she defines as a combination of attitude, how we hold ourselves, and our intentions.

Originating in the field of Organization Development as relates to change agents, "use of self" or "self as instrument" offers a useful frame of reference for those in positions in which their roles involve leading change. The term "Use of Self" came from Frederick M. Alexander, a somatic educator and therapist who developed The Alexander Technique, a systematic method of somatic awareness, analysis, and control integrating the mind/body systems used for improving self-awareness and self-use, particularly the body (Jamieson et al., 2010; Shusterman, 2012). Jamieson et al. (2010) define use of self as "the conscious use of one's whole being in the intentional execution of one's role for effectiveness in whatever the current situation is presenting" (p. 5). The assumption is that "who we are" (including the body) always follows one into each role or situation faced (Jamieson et al, 2010). When applied to leadership, a heightened self-awareness, an understanding of the situation, and the intentional use of the leader's self to facilitate change requires deliberate grounding in an embodied presence. According to Jamieson et al. (2010), use of self relies on the following core competencies, which are embodied:

1. Seeing. This includes an awareness of the situation and an ability to take in as much data as possible through the six senses. A leader can do this by remaining free of biases, seeing reality as others see it, and maintaining a spirit of curiosity and openness. This competency is deepened through reflection, meditation or other centering practices.
2. Knowing. This includes using one's knowledge and life experience to organize information gathered through effective seeing, making meaning, and drawing hunches, conclusions, and interpretations. At higher levels of multiple ways of knowing, knowing may be executed through internalized knowledge operating as intuition.
3. Doing. This includes having the courage and will to demonstrate behavioral flexibility for a given situation based on what is seen and known.

It is important to recognize that these competencies are always evolving depending upon the level of the leader's development and the situation faced. Throughout their lives, leaders will continue to learn and grow in their ability to use themselves (and their bodies) as instruments for change.

Koya et al. (2015) offer still another view of embodied leadership through competencies they identified as a result of a Delphi study they completed of what makes a good leader. Their approach to embodied leadership focuses on the relationship between body, mind and social environment (Koya et al., 2015) and emphasizes the use of bodily senses to make meaning from lived experience. They propose the following as a set of attributes that could be used as a framework to train embodied leaders:

1. Being non-judgmental: Staying curious with a heart and mind that are open to new experiences and learning.
2. Embracing uncertainty: Adapting, trusting, and staying in the present moment.
3. Employing active listening: Engaging all senses to listen deeply and intentionally.
4. Manifesting congruence: Practicing ethics, honesty, and integrity.
5. Using intuition: Making decisions by sensing patterns through deep experience and knowledge.
6. Embracing reflective practice: Considering inner states of being, connections with others, and learning from past experiences.
7. Having a sense of meaning/purpose: Having goals, right intentions, and motivation to complete tasks.
8. Applying holistic decision-making: Practicing all attributes for a better whole outcome.
9. Abiding with authentic presence: Being physically and mindfully present with non-egoism.
10. Using intention: Aligning actions with intentions whole-heartedly and affirmatively.

In their conclusions, Koya et al. (2015) emphasize that although courage was not identified in their findings, demonstrating courage is essential for leaders to enact these embodied leadership attributes, which can further be developed through mindfulness practices, an aspect discussed later in this paper.

Shifting from a focus on leadership competencies to understand what makes leaders effective, Fisher and Robbins (2015) use leadership-as-practice (L-A-P or leaderful practice) to study the actions of Australian military advisers who trained and led soldiers of the Republic of South Vietnam Armed Forces (RVNAF) during the Vietnam War. In high-risk environments like combat, the role of the body in leadership performance is more visible through heightened awareness of one's physical mortality and the importance of actions and reactions for the leader and followers. In fact, how leaders move through spaces, the noises they hear, temperatures they feel, clothes they wear, and people they observe or their lived and felt combat experiences become important elements of analysis for embodied leadership researchers studying leadership practice in combat environments. Through reflexive, collaborative inquiry, Fisher and Robbins (2015) reanalyzed narratives provided by the Australian military advisers to seek out and highlight the role of the body in their leadership interactions with the RVNAF during the Vietnam War. They found that the advisers intentionally used their bodies and nonverbal communications in an intercultural and multi-lingual context to build trust with the RVNAF. They conclude that a heightened sense of bodily awareness, while important in life-threatening situations like war, is by no means limited to military leaders as medical, fire, crisis response, and law enforcement as well as other leaders may benefit as well.

Formal education can assist in the development of competencies to practice embodied leadership; however, some believe that much of Western education is a disembodied experience with restrictive practices that require students to sit still while passively listening to lecture-based learning that addresses the mind but not the body (Kelan, 2011; Lawrence, 2012; Lawrence et al., 2013). These same authors suggest that Western education needs to change to encourage more embodied forms of learning, thereby "allowing us to reclaim the body as a source of knowledge" (Lawrence, 2012, p. 77).

**Embodied Leadership in the Classroom**

**Transformative Learning**
Perhaps the way we lead is informed by what and how we learn in the classroom with an overemphasis on technical, logical, and rational views of learning (Hamill, 2013; McDonough et al., 2016). In order to change the ways we teach and lead, different pedagogies relying more on embodied practices need to be explored and incorporated into the learning process (Watterson and Murray, 2019) even if our students do not value embodied knowing (McDonough et al., 2016). In fact, Barbour (2004) argues that embodied ways of knowing can be alternative epistemological strategies to make meaning from experiences and should be fostered in educational contexts to inspire transference of learning and knowledge

throughout life. As embodied learning is experiential and involves self-reflection, transformative learning may occur (Lawrence, 2012). Transformative learning may offer one method for reshaping educational experiences for adapting to change (Mezirow, 1997) and enabling transformation in the ways we lead.

Through transformative learning, learners can construct new and revised interpretations of their experiences in the world in order to guide future decisions and actions (Taylor, 2008). These transformations in perspective can arise as a result of changes in frames of reference, or "the structures of assumptions through which we understand experiences" (Mezirow, 1997, p. 5), or through acute personal or social life crises such as debilitating accidents, wars, job losses, retirements or other challenging experiences (Cranton, 2016; Taylor, 2008). Adopting a psycho-developmental view of transformative learning, learning occurs across the lifespan, enabling continuous, incremental, and progressive growth (Taylor, 2008). Epistemological change or change in how we make meaning is central to this view of transformation (Taylor, 2008). As applied to the study of leadership, Bennis and Thomas (2002) suggest that an indicator of true leadership is revealed in an individual leader's ability to make meaning from negative events and to learn from challenging experiences in order to emerge stronger and more committed. Bennis and Thomas (2002) refer to these difficult experiences as "crucibles" that shape and transform leaders through trials that create deep self-reflection, and which force leaders to rethink who they are and what really matters to them. Forged by these "crucibles" or transformative experiences, leaders may realize a new or altered sense of identity (Bennis & Thomas, 2002) that affects how they lead in the future.

## Crucible Experiences

Drawing from both transformative learning theory and research conducted by Bennis and Thomas (2002) on crucible experiences, I assign a reflective paper into the organizational leadership theory and practice course for doctoral students in the OD and Change Program at Cabrini University. My goal in assigning this paper is to encourage students to reflect on challenging experiences throughout their lives and discuss in-depth one experience that had the most impact on shaping their philosophy of leadership as well as how they practice it. In this way, students can look back and reframe transformative experiences and even failures into learning opportunities for personal growth by sharing with others their lessons learned.

**The crucible papers.** Prior to attending the weekend residency for their organizational leadership theory and practice course, students write a six-page reflective paper and participate in an online discussion about crucible experiences. They complete several individual leadership assessments from their textbook, review the *Crucibles of Leadership* article in Harvard Business Review written by Warren Bennis and Robert Thomas, and respond to a number of questions including how they define leadership, how a crucible experience they had affects their leadership philosophy and practice of leadership, what they learned about themselves through the crucible experience, and other questions related to the leadership assessments they complete. As they are comfortable, they share a summary of this reflection in the online discussion forum and comment on several student submissions. Some of the narratives shared online, and in the papers, focus on the loss of family members or friends, and how these losses affect the student and their future approach to leading self and others. Other narratives focus on difficult professional experiences including cross-cultural and ethical decisions made, and working for abusive employers. Of interest is how some students process the crucible experience and their lessons learned in embodied ways through detailed bodily descriptions of injuries, illnesses, or hardships, including phrases such as "open your heart", "I was a shoulder to cry on", "people easily read my face", and "I learned that I could stand firmly", thereby demonstrating that the visceral experience of a crucible affects the learning process. Students' comments on each other's online postings are often supportive, compassionate, and empathetic, expressing a shared understanding of difficulty and suffering. Students often describe this assignment as "cathartic," allowing them to analyze retrospectively a challenge in order to generate new meaning from the experience. In a future delivery of

this course, I will ask students to include insights about how these crucible experiences affect them at a bodily level by monitoring how they feel through interoception, or the ability to feel their own body sensations such as heart beat or respiration as well as emotions (Fogel, 2009; Price & Hooven, 2018), and how their leadership may have been affected through embodied approaches to influencing others. In redesigning this assignment to focus more on the body through interoception and tacit knowing (Ropo & Parvianinen, 2001), I expect to raise students' bodily awareness of how they respond to a crucible experience and how it affects their leadership philosophy moving forward.

**Teacher as model.** According to Taylor (2008), facilitating transformative learning is challenging, as transformative educators must be willing to reflect on their own frames of reference and transform themselves in order to help students transform. In a further challenge to educators, Cranton (2016) emphasizes, "if we are to foster transformative learning among our students, it is important that we experience and model the process ourselves" (p. 139). From my experience, the process of self-reflection and reframing past crucible experiences and even failures into new learning that can benefit my students is an undertaking both uncomfortable and humbling. I maintain a journal and revisit difficult experiences earlier in my career to determine what I learned from them, what I might have done differently, and how I grew from the experience, thereby reframing the experience from failure to learning. This process allows me to transform my own learning into growth by sharing this experience with my students. When I arrive for the first evening of class, I tell my students that I would not ask them to do anything I would not be willing to do myself, as disclosing crucibles can be uncomfortable. I introduce my own crucible experience, the challenges and failures I experienced personally, and what I learned. In allowing myself to be vulnerable, my goal is to create a psychologically safe environment that encourages students to reflect critically on their own experiences with the goal of reframing them into new learning. I complete the discussion about crucibles with the story of the lotus and how a fragrant, strong, and

resilient flower can only grow as a result of the mud it springs from. When we refuse to get stuck in the "mud" of life, we remain hopeful and generate new learning to share with others. In this way, we identify with the phrase "No mud, No lotus" (Hanh, 2014). The process of self-disclosure is not easy, and I feel the discomfort in my own body as I am sharing the difficulty of my own crucible experience and the impacts on me; however, I observe afterwards that through the risk of modeling vulnerability, as uncomfortable as it is, I can create a learning environment that allows for open dialogue, critical reflection and self-reflection and transformative learning. It is important that I also be sensitive to the fact that some students may be resistant to embodied approaches to learning and help them to move out of their comfort zones (Lawrence et al., 2013) through modeling and being honest about my own discomfort with the vulnerability that embodiment can create.

## Mindfulness Practice and Corporate Leadership Development
Given the focus of mindfulness on awareness of the present moment, leaders can also build embodied leadership through incorporating mindfulness practices in their educational classrooms, workplaces, and communities with the help of organizations like the Association for Contemplative Mind in Higher Education (ACMHE). ACMHE is a member-based organization that provides resources including webinars, workshops, conferences and a scholarly journal that encourage the use of contemplative practices such as mindfulness. Jon Kabat-Zinn (2013) views mindfulness as a skill and a "way of being" that includes "the awareness that arises by paying attention on purpose, in the present moment, and non-judgmentally" (p. XXXV). He further emphasizes that mindfulness is also the cultivation of heartfulness and an awareness that is a way of knowing more powerful than thinking, a form of wisdom that gives us "more options for how we choose to be in relationship to whatever arises in our minds and hearts, our bodies, and our lives" (Kabat-Zinn, 2013, p. XXXV). The emphasis on heartfulness aligns well with Cabrini University's "Education of the Heart" mission. Therefore, on the final day of my graduate course on leadership theory and practice, I

offer my doctoral students an icebreaker activity to introduce the section about embodied leadership through a short 5 to 10-minute sitting or walking meditation which I demonstrate on my yoga mat as walking mindfully and deliberately by "kissing the earth with your feet," as Zen Master Thich Nhat Hanh describes the practice. Students are invited to participate, for their participation is purely voluntary as it is important to recognize that mindfulness may be difficult for students who have experienced trauma and have tremendous discomfort with their bodily experience (Treleaven, 2018). Students are encouraged to be open and curious about their experience and to notice what comes up for them as they participate in either practice without judging what arises. I use one of the UCLA Mindful Awareness Research Center (MARC) free guided meditations for the sitting meditation. I offer this icebreaker on the last day of their weekend residency, so students can immediately apply the lessons learned in class to their work experiences the following week.

Various corporations are also investing in mindfulness to develop effective leaders. One such example is Janice Marturano, Founder and Executive Director of the Institute for Mindful Leadership who works with organizations to develop mindful leaders using a curriculum she initially developed at General Mills and fine-tuned at the University of Massachusetts Medical School's Center for Mindfulness (Marturano, 2014). She suggests that "a mindful leader embodies leadership presence by cultivating focus, clarity, creativity, and compassion in the service of others" (p. 11) such that others can see and feel the mindful leader's presence. Brendel and Bennett (2016) recommend integrated pedagogies including mindfulness and somatics—or body-based and movement studies—practices that enable leaders to embody a "way of being" as an alternative to leadership development programs that are solely focused on cognitive processing and critical reflection. Through these intentionally body-anchored practices, leaders learn to embody leadership, and remain open, grounded in being, and engaged to transform their behaviors from "auto pilot" to consciously chosen or intentional. By accessing tacit knowledge somatically, that is, through the body, the body itself is understood to be an essential place of change, learning, intelligence, and transformation (Brendel and Bennett, 2016). Organizations that have incorporated mindfulness and somatics into their leadership programs including GE, Google, Apple, IBM, and Starbucks, have discovered that leaders learn to regulate and act from a clearer state of mind fully aligned with and reinforced by physical presence (Brendel and Bennett, 2016). This emphasis on mindfulness in turn positively impacts decision-making, communication, conflict management, and creativity (Brendel and Bennett, 2016; Marturano, 2014) as well as task management, self-care and self-reflection, relating to others, and adapting to change (Marturano, 2014; Rupprecht et al., 2019). Ultimately, through embodying leadership, we can elicit a "sustainable presence which is sensed, read, and responded to by others as genuine, present, responsive, and connected" (Brendel and Bennett, 2016, p. 419). By way of demonstrating this type of genuine and connected knowing and what this type of leadership can look like in a classroom, I offer below an autoethnographic account, from my personal story of self-reflective change.

**My Own Journey with Embodiment and Leading Differently**

In my own journey as a leader both in the military and corporate sectors and now as a faculty member teaching graduate-level courses in an institution of higher education, I have learned to listen with my eyes, ears, and heart so that my team members and students can feel seen, heard, and understood. Of course, not all students will require this level of deep listening, or listening to learn without judgment (University of Minnesota, 2020); however, in modeling this embodied way of being in the classroom, my hope is that students will adapt this for their own practice when they return to work. As part of this embodied process, I remind my students that we have three brains – one located in our head (cognition), one located in our heart (affective), and one located in our gut (intuition); therefore, our thinking occurs through our body, which is a relevant source of information, knowledge, and wisdom, particularly for making decisions (Soosalu et al., 2019) in highly complex and ambiguous environments.

My own interest in leading differently began when I experienced some health issues and personal setbacks resulting from lack of self-awareness and neglect of my own self-care. I was reacting to rather than responding to situations and felt like I was operating on autopilot, unaware of how my own behaviors and decisions were affecting myself and others. According to Due Quach (2018), this tendency to be reactive and operate on autopilot is due to the emotional activation hard-wired into our brain. Quach (2018) describes these three patterns of emotional activation as Brain 1.0 (The Inner Godzilla), Brain 2.0 (The Inner Teen Wolf), and Brain 3.0 (The Inner Sage). The emotional states of each pattern affect the way we feel, think, and act, so maintaining awareness of the triggers that shift us into each pattern and our autopilot is important. In Brain 1.0, the brain activation pattern in the amygdala signals a threat causing us to move into a freeze-flight-fight state or self-preservation mode. During Brain 2.0, the brain activation pattern in the basil ganglia and deactivation of the prefrontal cortex trigger a need for rewards and instant gratification, creating drive and motivation. At the extreme, staying in Brain 2.0 can lead to patterns of addiction or excess that become harmful to our health in the long-term. In Brain 3.0, the brain activation pattern in the prefrontal cortex, basil ganglia, and amygdala triggers higher functioning, well-being, and mastery that helps us navigate daily life, particularly our social interactions. Quach (2018) states that all patterns are necessary for survival and that the key is to develop more awareness of when the intentional shift to Brain 3.0 needs to occur in order to harness Brain 1.0 and Brain 2.0 effectively (For more information about Brain 1.0, 2.0, and 3.0, see her website Calm Clarity).

As Quach describes in her book *Calm Clarity*, I too decided to learn more about yoga as a means of developing more self-awareness and subsequently better self-management. After practicing yoga and meditation infrequently for several years, I completed an in-depth four-week, 200-hour Yoga Teacher Certification at the Asheville Yoga Center in 2015. Immediately, I became more grounded, connected, and present to what arises in each moment, helping me shift to Brain 3.0 (Quach, 2018). This grounding, or "the ability to be present and

clear and keep one's composure (or footing) in what may be difficult situations" (Winther, 2013, p.231) enhanced my performance at work. I noticed that greater self and body awareness of my heartbeat, rate and depth of my breathing, or tightness in my shoulders and neck enabled me to monitor how I was feeling or my emotional state (Quach, 2018) during stressful situations, work meetings, and major projects. This elevated awareness allowed me to respond rather than react to situations by making more conscious choices to shift to Brain 3.0. For example, if I felt tension in my body, whether a headache beginning, or muscle tightening, or that I was holding my breath, I could shift my focus to deep breathing (Farhi, 1996; Quach, 2018) and recharging my energy by walking around the building (Su, 2017). I became more aware of how I show up in the world and can make better leadership decisions.

In 2018, as I was preparing to make a major move from Asheville, NC to Philadelphia, PA, I signed up for an eight-week Mindfulness-Based Stress Reduction (MBSR) online live training offered through the Center for Mindfulness at the University of Massachusetts. Throughout the eight-week instructor-led, live experience, I learned specific meditation practices new to me, such as the body scan and particular types of walking meditation and gained new insights about the challenges of staying embodied with discomfort, particularly when faced with the stressor of moving to a new area where I had no social support system or permanent employment. I met and interacted online with colleagues from across the globe as we connected weekly to share our experiences and challenges with practicing MBSR outside the classroom. Upon completing the eight-week MBSR training, I applied what I learned in a five-day residential experience: a silent, teacher-led retreat offered at Pendle Hill through Clearlight Meditation Institute. The practice of silence afforded me the opportunity to "be with" my thoughts and feelings without judgment. It was a challenging experience as I become even more aware of how my thoughts and feelings were affecting my body; moreover, I discovered just how dependent I had become on social media since we were encouraged to refrain from use. Since then, I continue to participate in one-day silent retreats and practice mindfulness through a home yoga practice,

meditation, hiking, and forest bathing, swimming, cycling, journaling, and other activities that support my goals for staying present-focused and aware of my need for self-care. A focus on mindfulness allows me to connect with my body daily, to lead and serve differently with more awareness through my body, and to show up in the world with an open heart and mind. I am grateful that I discovered how to incorporate mindfulness practices into my daily life work, as they have profoundly and positively changed my life and my leadership. For me leadership is neither a title nor a position. Leadership is a mindset and a way of being in the world. It is a privilege not a right, and I am grateful for the opportunity to lead every day.

**Implications for Research and Practice and Conclusions**

My story is but one of infinite possible experiences. As we learn more about embodied leadership, we will need to establish new epistemologies (Barbour, 2004) and pedagogies (Watterson and Murray, 2019) more aligned with the future of work and the fourth industrial revolution. Embracing new ways of leading and being will become increasingly important to deal with the complex challenges of the 21st century (Hamill, 2013). To prepare future leaders, new ways of knowing must be embraced even as academic environments struggle to let go of traditional notions of knowing (McDonough et al., 2016). Lawrence et al. (2013) sum up this mindset best when they state: "In order to reach all of our learners we may need to leave the safety of our own comfort zones and tried and true ways of teaching and be willing to not only appreciate but to incorporate the body into our pedagogy" (p. 390). In addition to modeling, we may consider how encouraging students to take note of their bodies and to be present in them more consciously may change their perspectives of themselves (Sinclair, 2005) thereby fostering "a capacity to read, register and feel compassion for what is going on for others, that is revealed and knowable through bodies" (p. 403).

Despite the promise of embodied leadership, questions and critiques remain particularly with respect to mindfulness as a means of developing embodied leadership. Researchers, including Ronald Purser, author of

*McMindfulness: How Mindfulness Became the New Capitalist Spirituality*, observe that mindfulness as applied by corporations has shifted from its Buddhist tradition rooted in wisdom and ethical principles such as compassion to become a highly commercialized quick fix or panacea for achieving corporate free-market capitalism (Hyland, 2017; Pursuer, 2018; Vu and Gill, 2018). As an example, Purser (2018) suggests that corporate mindfulness programs are often marketed as a method of solving employee disengagement while ignoring the underlying systems or structural issues that may be the root cause of this disengagement. For these scholars, mindfulness has become a commodity that is exploited and misused to serve corporate and market interests.

While acknowledging these criticisms of the corporate application of mindfulness, it is evident that there is still more to learn and understand about embodied leadership, which is the focus of this paper. What results from a leader becoming more aware of mind and body? Through more mind-body awareness and intentional use of the body, will leaders make better decisions, become more resilient, and lead more effectively? Can organizations expect that enhanced organizational health, effectiveness, resilience, and performance will result from embodied leadership? Does embodied leadership produce deeper levels of knowing that support strategic changes in VUCA environments? Any of these would serve as valuable research projects to enhance our understanding of how to lead others effectively through awareness of the body, and the references used for this paper would be useful starting points for additional reading.

In the fourth industrial revolution, the future practice of leadership will need to be more agile and human-centric in order to adapt to a highly VUCA world. Ultimately, the challenges of the fourth industrial revolution may create opportunities for us to connect more readily with the wisdom our bodily knowledge offers and help us recognize that "we need our full bodies for deeper understanding of what it means to be human in this world" (Lawrence et al., 2013, p. 392) and to facilitate the change and transformation needed to build a sustainable future.

**About the Author**

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