

UNLOCKING EMBODIED COGNITION IN TRANSFORMATIVE LEARNING:
NAVIGATING EDGE-EMOTIONS CAPTURED BY A DISORIENTING DILEMMA

by

PATRICIA L. CARTER

(Under the Direction of Aiki Nicolaidis)

ABSTRACT

Using narrative inquiry, this study investigated the lived experience of embodied cognition—the integrated emotional and intellectual functions *of* cognition—in transformative learning in the context of a disorienting dilemma. These two fundamental *conscious* experiences of embodied cognition are preceded by three *preconscious* sensory experiences of the felt sense—fear, anger, and flocking. These *preconscious* and *conscious* experiences, however, can also be responsible for a lockdown of embodied cognition, disabling the transformative learning process. The lived experiences of disorientation with six participants were investigated using unstructured interviews, narratives, and the lenses of embodied cognition, a grief process, and Stoic philosophy. While all six participants began their interviews in a sustained lockdown of embodied cognition—3 months to 50 years after their experience—as a result these interviews, four were able to experience their grief more fully, unlock embodied cognition, and create new meaning perspectives, completing their transformative learning process. Findings suggest when sensory, emotional, or intellectual experiences are perceived as unbearable or unacceptable, resistance to them can lock down embodied cognition, creating a barrier to transformative learning. Findings also suggest when the disorienting dilemma is a negative experience in the

eyes of the participant, the lock down can represent an attempt to refuse to accept or deny the reality of the experience. This suggestion lays the groundwork for the implication of a grief process as a function of the emotional dimension in Phase 1 of the transformative learning process. Therefore, Kübler-Ross's grief process, a widely accepted and established theory, is presented as a prospective process for more difficult disorienting dilemmas and to support the importance of sitting in—not avoiding— sensory, emotional, and intellectual experiences for unlocking embodied cognition. These findings suggest pedagogy regarding transformative learning include detailed coverage of the microprocesses of embodied cognition and their correlation to the stages of Kübler-Ross's grief process as vital functions to transformative learning. This research also extends Mezirow's theory of transformative learning and enhances Mälkki's theorizing of the nature of reflection in transformative learning and Kübler-Ross's theory of grief.

INDEX WORDS: Transformative learning, embodied cognition, emotion, the felt sense, grief process, Stoicism

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Synchronicity, according to Carl Jung, is a manifestation of the “collective unconscious,” a deeper level of knowing shared by all humans. This phenomenon supposedly occurs when seemingly unrelated events emerge, creating meaningful connections.

I had no plans to get a PhD until one day, a stranger in my vicinity said to someone else, “You know, you can go to college for free in Georgia at the age of 62.” I have lived in Georgia for 40 years; I have taught college in Georgia for 10 years. I had never heard this before, and I was hearing it 2 weeks before turning 62.

I decided to peruse the UGA website, check out the process, see what classes were available in anthropology or philosophy, you know, the classes we never could take, just for fun, in our bachelor’s or master’s degree programs? So, I took an education class. Ask me how I got into it. I do not know. I did not look for a class in education, I do not remember signing up for a class in education, but somehow I ended up in a class in education.

It might seem appropriate here to be reminded of my age, but I will remind you that I managed to get through 5 years of a doctoral program from 62 to 67 and graduate 2 days short of 68. I will also tell you that somehow the path seemed to be paved before me and that my goal was already established.

I say this because after doing all I could to learn all I could about an invaluable theory that turned out to support my passion, while avoiding publishing a paper for a conference or a journal or whatever for 3 years, I was forced to pull something together within 2 weeks for the

International Transformative Learning Conference of 2022. I won the Jack Mezirow Living Theory of Transformative Learning Award that year. It still feels surreal.

My advisor, major (chairman of my dissertation committee), Oh, Captain, my Captain, Alike, shared an appraisal about my not liking to bring attention to myself and yet, at the same time, professed (catch the pun there) I wanted to save the world.

I think she knew me more than I knew me. She most definitely knew instinctively what direction to lead me in. She had me read a book for an independent study that began my thinking. I was then gifted, one day, with empirical studies as a homework assignment, by an “Angel,” leading me immediately to a gap in the research and my eventual research topic.

Seriously, I was led to all the information I accumulated to write that paper and now this dissertation. Even finding *Meditations* by Marcus Aurelius was a synchronous happening. I came home one night and just decided to watch a movie (I never watch movies; I cannot make a decision about which one to watch because I do not keep up with them, know who is in them, or what they are about without having to research them).

So, I decided to pick a movie completely out of my wheelhouse, *Acts of Vengeance*. ;-) Antonio Banderas used the *Meditations* book in that movie to soak up blood from a gunshot wound he procured from a street fight. I wondered if the book was real, looked it up the next day in the library app I have, and voila, there it was. And it gave me the answer to a question I have had for years about the stoic value of enduring pain without the expression of emotion. There have been so many other synchronous happenings, but I will spare you the details.

Because, you see, I do not want to save the world, I just want everyone to become unindoctrinated by that stoic value, learn how to feel their feelings, and stop being depressed or finding an addictive behavior to distract from them.

Maybe this dissertation will accomplish that goal. I tried to keep it simple (KISS) because I want everyone to read it (even though we have been told only 12 people will read our dissertations). It is also repetitive because I know that no one reads a whole dissertation. So, I made sure the core information was in each chapter, so that whatever chapter one looks at first, usually the last one, it would have all the nuggets.

In closing, I would like to express my deepest appreciation to my family for their love, unwavering support, and understanding of my absence throughout this journey. Being given a party to send me off to college just to take a class was very encouraging evidently. I love you all!

Next, I would like to extend my deepest appreciation to the members of my dissertation committee, Dr. Aliko Nicolaidis, Dr. Karen Watkins, Dr. Melissa Freeman, and Dr. Jennifer Elkins for their guidance, support, and feedback throughout this journey. Their expertise has been instrumental in developing my research.

I am profoundly grateful to my cohorts who gave me invaluable support, tips, insights, constructive criticism, affirmations, lunches, and doctoral robe. ;-) I hope I have supported you as much as you have me. And I am forever indebted to Holly for keeping us all on track, always knowing what to do, and doing it all with a smile and a benevolent heart. Brad, there are no words (you have to edit ;)) that can express my **PROFOUND GRATITUDE** for your patience, support, and care in creating this document!

Lastly, I would like to extend my heartfelt appreciation to the University System of Georgia, and the University of Georgia for the opportunity to return to learn. I have been inspired.

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CHAPTER 1

INTRODUCTION TO THE RESEARCH

Education, for most people, means trying to lead the child to resemble the typical adult of his society... But for me, education means making creators... You have to make inventors, innovators, not conformists.

—Jean Piaget

For centuries, our understanding of *cognition* centered primarily on intellectual processes such as thinking, language, learning, attention, memory, and perception. In the early 2000s, however, the acknowledgement of *emotion* as an equal and integrated *extra-rational* function of cognition led to the development of the concept of *embodied cognition* (Johnson, 2015; Wellsby & Pexman, 2014). Today, understanding the microprocesses of embodied cognition and their importance in the first phase of the transformative learning process, highlights the most significant reason for nature to have integrated emotion with intellect in the process of cognition: Through the developmental trajectory of a lifetime, emotion supports intellect in navigating, coping with, and adapting to life's constant changes, so that learning can occur successfully (Kegan et al., 1982).

Thus, emotion as a function of embodied cognition, is a gift of nature, serving to help process, not prevent, learning. This research sought to extend Mezirow's (1978) theory and Mälkki's theorizing the nature of reflection by identifying the constituents of embodied cognition and their roles in supporting successful experiences of sensemaking, meaning making, and personal transformation. During this exploration, an idea emerged regarding the prospect of a

grief process as a construct of the emotional dimension of transformative learning. This idea led to considering an enhancement to Kübler-Ross' (1970) theory of grief, by considering the processing of all levels of loss, thwarting, and disappointment coming from the experience of a disorienting dilemma, not just those of death and dying. Finally, the research sought to provide answers to inquiries raised by researchers over the years, regarding the transition through the first phase of the transformative learning theory—the disorienting dilemma, transitions to other phases, and interruptions or barriers to the transformative learning process.

Of particular interest, was a gap found in the literature review, pointing to a specific phenomenon identified by a number of researchers, characterized as an interruption to transformative learning, and labeled with as many uniquely evocative terms, including “the neutral zone” (Bridges & Bridges, 2019, p. 344), “unconscious habit memory” (Post & Kegan, 2017, p. 327), “mental emergency” (Mälkki, 2011, p. 31), “trapped interminably” (King, 2003, p. 16), “liminal space” or “lightning strike” (McWhinney & Markos, 2003, as cited in Sands & Tennant, 2010, p. 110). Other terms included “enduring suspense-feltness” (Rodgers, 2002, p. 852), “initial reaction” (Courtenay et al., 1996, as cited in Taylor, 1997, p. 38), a “feeling of being in limbo” or a “moment of suspension” (Brookfield, 1994, p. 59). Still others have included “stalling” (Lytle, 1989, as cited in Taylor, 1997, p. 40), “ego equilibria” or “hanging in the balance” (Kegan, 1979, p. 11), and “catastrophic disorganization” (Perry, 1968, as cited in Berger, 2004, p. 339).

Having identified the *preconscious* and *conscious* microprocesses, and discerning their roles in embodied cognition, this research revealed the source for this phenomenon of interruption: the microprocesses of embodied cognition themselves. This interruption is primarily characterized as an experience of being “stuck” in the transformative learning process

and correlates with what the trauma literature refers to as a freeze response or what van der Kolk (2015) refers to as a “hijacking” (p. 59) of the prefrontal cortex. While there already exists a plethora of labels listed above for this phenomenon, for this research, this phenomenon is identified as *a lock down of embodied cognition*. This experience of a lockdown of embodied cognition seems to be primarily caused by the perception of the overwhelming discomfort of sensory or emotional experiences associated to the disorientation dilemma.

Finally, this phenomenon revealed another possible cause for the interruption of transformative learning regarding an outdated little ‘s’ stoic value, denoting a generalized conjecture regarding the suppression of emotion, rather than the actual intention of the big ‘S’ philosophy supporting emotion.

Although Mezirow (2000a) acknowledged the importance of an emotional dimension in transformative learning, Taylor (2007) noted, still, “little is known about how to effectively engage emotions in practice ... and the role of particular feelings” (p. 188) in the practice of transforming a meaning perspective or frame of reference. This research sheds light on “the role of the particular” sensory and emotional experiences essential to transition through the phases, and an understanding of how to “engage” these experiences for the successful development of new perspectives and avoid the lock down of embodied cognition and the interruption of the transformative learning process.

Chapter Summary

Embodied cognition, a relatively new concept, calls attention to the integrated role of emotion and intellect in the process of cognition, as body and world intertwine to affect the way one thinks, understands, and interacts with self, others, and the context. The linguistic terrain of this research can be quite challenging; with differing states of consciousness, five

microprocesses of embodied cognition, the differentiation of sensory, emotional and intellectual experiences, and the language from six theoretical and philosophical frameworks contributing to the understanding of embodied cognition in transformative learning. Therefore, several measures are taken in this chapter to disentangle these concepts.

Initially, a presentation of the microprocesses of embodied cognition assembled for this research is followed by an historical review of the development of the concept of embodied cognition and an explanation of how the process works in the first phase of transformative learning process. Next, an exploration of the physiology of embodied cognition through the literature of trauma underpins the correlation of embodied cognition to Kübler-Ross' (1970) theory of grief, to introduce this process later as a construct of an emotional dimension during phase one of the transformative learning theory.

Then, a brief disclaimer of indeterminacy is followed by a clarification of the states of consciousness, drawing attention to the *preconscious* and *conscious* (identified in italics throughout the document) functions or microprocesses of embodied cognition. An examination of the simultaneous use and misuse of the term “feeling” when referring to these different *sensory, emotional, and intellectual* microprocesses or experiences of embodied cognition, helps clarify and differentiate them, as well as bring awareness to their involvement in the grief process, stimulating insights regarding strategies for unlocking embodied cognition.

Finally, with the clarification of language introduced, the study's problem statement, purpose statement, research question, and statement of significance are presented, to clarify the focus of this research. Closing out the chapter is a supplementary observation about big ‘S’ Stoic philosophy, to bring attention to a misapprehended little ‘s’ stoic value perpetuating the notion of “negative emotions,” engendering the resistance or suppression of sensory and emotional

experiences, and contributing to the lockdown of embodied cognition in transformative learning. When sensory and emotional experiences are resisted or remain unexpressed, especially due to an outdated and misunderstood value (Johannes, 2022) they impede the natural process for managing life events (Dirkx, 2008; Gendlin, 1991; Herman, 2015; Kübler-Ross, 1970; Moussawi, 2021; van der Kolk, 2015) and interrupt transformative learning.

Embodied Cognition

Embodied cognition a necessary physiological resource of nature attests to the human body's precision and superior capacity for survival and learning. Through this research, I identified five microprocesses (Table 1) involved in the processing of embodied cognition—fear, anger, flocking, emotion, and intellect—the first three are *preconscious* experiences and the latter two are *conscious* experiences. These microprocesses were identified as occurring in phase one of Mezirow’s (1978) transformative learning theory—the disorienting dilemma.

Table 1. *The Microprocesses of Embodied Cognition*

Embodied Cognition (Johnson, 2015; Wellsby & Pexman 2015) Carter, 2023				
Sensory & Emotional Functions			Intellectual Functions	
Preconscious			Conscious	
Fear	Fear & Anger	Seeking Safety	Emotional	Intellectual Functions
Felt Sense (Gendlin, 1991)	Edge-Emotions (Mälkki, 2011)	Flocking (Perry, 2018)	Comfort Zone (Mälkki, 2011)	 (Van der Kolk, 2015)

The first two *preconscious* microprocesses of fear and anger were identified as constituents of the felt sense using Gendlin’s (1991) theory of embodied understanding, and the third *preconscious* microprocess, flocking, was identified from Perry’s (2018) Neuro-sequential

Model. The fourth and fifth *conscious* microprocesses of emotion and intellect were identified by neuroscience (Johnson, 2015; Wellsby & Pexman, 2014). The concepts of edge-emotions and comfort zone were identified from Mälkki's (2011) theorizing nature of reflection. Barrett's (2017a) theory of constructed emotion (Table 2) correlated with and explained the process and movement through embodied cognition. Kübler-Ross' (1970) theory of grief also correlated with all previously identified microprocesses of embodied cognition and integrated well as a potential construct of the emotional dimension of transformative learning as a healing process for unlocking embodied cognition in disorienting dilemmas. Finally, the Stoic disciplines are presented to challenge a misunderstood value regarding emotions and reveal a correlation to the microprocesses of embodied cognition as well.

According to Ambrose et al. (2010), *learning* is “a process that leads to change, which occurs as a result of an experience and increases the potential for improved performance and future learning” (p. 3). *Transformative learning* (Mezirow, 1997) is a more complex learning process that involves,

effecting change in a frame of reference. Adults have acquired a coherent body of experience—associations, concepts, values, feelings,¹ conditioned responses—frames of reference that define their life world. Frames of reference are the structures of assumptions through which we understand our experiences. They selectively shape and delimit expectations, perceptions, cognition, and feelings. They set our “line of action.” Once set, we automatically move from one specific activity (mental or behavioral) to another. (p. 5)

¹ Here is an example of the term feeling substituted for what might be a sensory, emotional, or intellectual experience or possibly all three.

Understanding the microprocesses helps explain embodied cognition and provide a deeper understanding of the first phase of transformative learning theory. Moreover, this understanding will explain a lockdown of embodied cognition and how these microprocesses can impede the transformative learning process.

Table 2. Alignment of Theories With the Concept of Embodied Cognition

Alignment of Theories with the Concept of Embodied Cognition					
Sensory & Emotional Functions			Intellectual Functions		
Preconscious			Conscious		
Embodied Cognition (Johnson, 2015; Wellsby & Pexman 2015) Carter, 2023					
Felt Sense (Gendlin, 1991) Fear	Edge-Emotions (Mätkki,2011) Anger	Flocking (Perry, 2018) Seeking	Emotional Comfort Zone (Mätkki, 2011)	Resumption of Full Intellectual Functions (Van der Kolk, 2015)	
Phenomenology Merleau-Ponty (2013)					
Sense Datum	Protention/ Retention	Bodily Intentionality	Emotion	Embodied Consciousness Intersubjective Experience Being-in-the-World Orientation	
Transformative Learning (Mezirow, 1978)					
Phase 1 Disorienting Dilemma			Phase 2 Self-Examination Sensemaking	Phase 3 Critical Reflection Meaning Making	
Theorizing the Nature of Reflection Transformative Learning Theory (Mätkki, 2011)					
Edge-Emotions Fear & Anger (Mätkki,2011) Front Door			Comfort Zone (Mätkki, 2011) Back Door	Phase 2 Self-Examination Sensemaking	Phase 3 Critical Reflection Meaning Making
The Theory of Embodied Understanding Gendlin (1991)					
Bodily sentence	Bodily Implying	Sentient Totaling	Emotion	Embodied Consciousness Intersubjective Experience Being-in-the-World Orientation	
Construction of Emotion (Barrett 2017)					
Prediction Failure	Interoceptive Activity	Commotion	Affect	Emotion	
Grief Process (Kubler-Ross 1970; Carter, 2022)					
Denial	Anger	Bargaining	Sadness	Acceptance	Resumption of full Intellectual Functions
The Three Disciplines of the Doctrine of Stoic Philosophy Aurelius (2002)					
Phantasia/ Perception	Action			Will (Hegemonikon)	

Historical Review of the Concept of Embodied Cognition

Historically, Cartesian and scientific assumptions characterized cognition (intellectual functioning) as a “disembodied process that occurs separately from emotion and affect” (Maiese, 2017, p. 197). This view of separation encouraged a pejorative assessment of emotion (Lange, 1885), prompting Meyer (1933) to suggest that the word *emotion* itself would be eradicated from the English language by 1950. Other scholars noted that emotions have been ignored (Jersild, 1946), are “neglected biological roots” (Tomkins, 1962, p. 28), are “disregarded in research” (Hoare, 2006), and are “a kind of baggage that impedes effective teaching and learning” (Dirkx, 2008, p. 8). Simply put, society did not understand emotion as a fundamental partner to intellect in cognition.

Furthermore, the pre-modern-era stoic value of enduring pain without the expression of emotion continued to perpetuate a disparaging perception of emotion, favoring “rational” strategies for managing life’s difficulties, and elevating those who practice such strategies as virtuous and of good character. In the words of Merleau-Ponty (as cited in Fuchs, 2016), this perception, sustained through “adaptation and sedimentation” (p. 204), prolonged ignorance about the purpose of emotion as a *naturally* occurring component and resource in cognition.

Previous identifications of embodied cognition as a process proved to be difficult since several theories posited over the previous decade, influenced the understanding of this concept (Johnson, 2015; Wellsby & Pexman, 2014). While cognitive theorists adhered to the philosophy that emotion and intellect function together as meaning-making constructs, others supported a contextual view of learning. Still others continued to debate whether knowledge and language are developed because of sensory processes or whether sensorimotor processing creates access to knowledge and language (Wellsby & Pexman, 2014).

Kegan (1994) viewed transformative learning as the "way [one] knows" (p. 17) within one's body, mind, and soul, and when supported fully, it offers individuals an opportunity for embodied learning, growth, and development. In line with this conceptualization, Dirkx (2008) expressed that learning theories need to incorporate a holistic view of individual experiential learning and other ways of knowing that do not necessarily involve cognitive functions.

In the early 2000s, researchers in the field of neuroscience renewed their interest in emotion and found evidence supporting the importance of both the intellectual (rational) and the emotional (extra-rational) as integrated functions of cognition (Johnson, 2015; van der Kolk, 2015; Wellsby & Pexman, 2014). The findings incorporated previously held considerations regarding cognition including a contextual view of integrating sensory experiences from the external world with personal sensory historicity (other ways of knowing) to support the function of emotion, together with intellect.

Although the term *cognition* seems to slant the concept of embodied cognition toward the rational or intellectual functions of cognition, the term *embodied*, nonetheless, is meant to emphasize emotion as an integrated and equally important function of cognition. By adopting the term embodied cognition, neuroscience took a philosophical turn, bringing a deeper understanding to the role of emotion in cognition and triggering a groundbreaking appreciation of emotional intelligence.

In time, the term *embodied learning* conveyed that "emotion represents both the experience of particular body states and our interpretation or construction of these states as mediated by sociocultural processes" (Dirkx, 2008, p. 13). Later, the term *enactment* would further support the concept of embodied cognition, holding that bodily systems and functions engage with and relate to the external world (Barrett, 2017; Maiese, 2017). Thus, an integrated

body, mind, and spirit—an embodied life—necessitates embodied learning through connection to the world.

The Process of Embodied Cognition

Disorienting dilemmas begin at a moment's notice with a sensory experience or sense of alarm that seems to come from nowhere. Gendlin (1991) identified two initial *preconscious* sensory experiences, or inceptual microprocesses, collectively as the felt sense. These necessary and often uncomfortable experiences serve two life-enhancing purposes.

Initially, a *preconscious*, naturally occurring physiological alarm, fear, warns the individual of a threat or danger, causing a sense of disorientation. The threat might involve a minor experience such as a sudden awareness of an inaccurate thought, assumption, or belief needing reassessment, or the experience may involve a more serious event, such as a breakup of a relationship, loss of a job, or death of a loved one. Next, anger serves to motivate the body for a response or to take action, in an attempt to resolve the disorienting event. Flocking (Perry et al., 2018), occurring simultaneously to fear and anger, is a *preconscious* behavior of seeking safety or a form of support from the environment. All three concepts make up the felt sense, the *preconscious* initiator for resolving disorienting dilemmas. Thus, as the felt sense *preconsciously* serves to protect and enhance life (Damasio, 1999; van der Kolk, 2015), it is a benevolent act of nature (Aurelius, 2002).

The discomfort of the felt-sense experiences of fear and anger—identified by Mälkki (2011) as edge-emotions—associated with a disorienting dilemma, are commonly perceived as negative and uncomfortable experiences. In truth, these felt-sense experiences must be uncomfortable enough to bring attention to a threat and motivate a body to action. Sensory

experiences like fear and anger can be immediately quieted by taking some type of action, whether by changing a thought or removing oneself from a dangerous situation.

If action is not taken, an oscillation between the sensory experiences of fear and anger can create an experience or sense of anxiety. Additionally, when sensory experiences are avoided or resisted, they devolve over time, into what Barrett called an affect; a deeper level of energy—identified as an emotion. When action is taken, moving through the discomfort of sensory and emotional experiences *is* the natural role of healing in learning (Herman, 2015; Kübler-Ross, 1970; Mälkki, 2011; Mezirow, 1991; Perry et al., 2018; van der Kolk, 2015).

The *conscious* functions or microprocesses of embodied cognition are emotion and intellect. If interoceptive activity— incoming sensory data interacting with historical sensory information—identifies the source of the disorientation, a perception is formed (Aurelius, 2002; Barrett, 2017; Merleau-Ponty, 2013). This perception helps to identify appropriate actions to resolve the disorienting dilemma and when taken, the emotional function serves to stabilize the physiological system. If the incoming sensory experience (threat) cannot be identified, a lockdown of embodied cognition and movement to a comfort zone (Mälkki, 2011) allows an avoidance of the sensory experiences and a sense of stabilization.

A lockdown of embodied cognition inhibits the ability to process and express the sensory experiences of fear and anger, and the emotional experience of sadness that might accompany the loss, thwarting, or disappointment of a disorienting dilemma. In turn, the inability to process the sensory and emotional experiences can effect the intellectual functions of embodied cognition. It is with this in mind, I propose a grief process serves as a construct of the emotional dimension in transformative learning, supporting the processing and expression of energy

necessary for regulating the physiological systems that might be effecting the sensemaking and meaning making processes of transformative learning.

Exploring the Physiology of a Disorienting Dilemma Through the Literature of Trauma

Although the experience of transformative learning is not typically considered to be traumatic, the experience of a disorienting dilemma can evoke similar physiological processes. A significant point to mention here, is the participants chose disorienting dilemmas that might be identified as traumatic experiences. Thus, the incorporation of trauma literature and research on the physiology of trauma and doing research with individuals who have experienced trauma, aids in supporting the trustworthiness of this research. This information brings valuable insight in understanding the potential physiological effects and the potential impact on the participants of a disorienting dilemma.

Bessel van der Kolk (2015), renowned for his research in trauma, worked with many adults who described themselves as being numb, disconnected, or “checked out” despite the appearance of having successful lives. He wanted to understand how trauma causes people to become hopelessly stuck in the past. Specifically, van der Kolk wanted to know what happened in people's minds and brains that keeps them frozen, trapped in a place they desperately wish to escape.

Searching for answers, Van der Kolk eventually found that brain imaging could show the damage done by trauma and the physical “imprints left on the brain, mind, and body” (p. 21). In 2015, after 40 years of extensive research using brain-imaging tools, van der Kolk verified the physiological impact (i.e., the trace, mark, scar) trauma leaves on the brain, mind, and body, and released his comprehensive examination of trauma in his seminal book *The Body Keeps the Score*.

According to van der Kolk (2015) Pierre Janet, a psychologist and physician, authored the first recording about trauma in 1889, concluding that trauma represented an “attach[ment] to an insurmountable obstacle”² and an inability “to integrate . . . traumatic memories” (p. 181). In other words, individuals unable to complete the embodied experience of trauma, do not physiologically assimilate their experience into memory.

To explain further, the lock down of embodied cognition prior to assimilating an experience into memory, captures and holds—perpetually in present time—one or more of the uncomfortable *preconscious* sensory experiences of the felt sense (fear, anger, flocking) or the *conscious* experience of an emotion in the body. Once this energy is abreacted (processed and released), the experience can be assimilated into memory and moved into the past.

This is important to transformative learning as every disorienting dilemma brings some level of discomfort. If this experience is too overwhelming, a lockdown of embodied cognition occurs, and successful movement to subsequent phases of transformative learning is inhibited. Thus, understanding the physiological processes involved in unlocking embodied cognition becomes critical to supporting successful transformative learning.

Researching the neurodevelopmental and psychobiological roots of PTSD since the early 1990s, Bruce Perry, a child psychiatrist and neuroscientist, utilized his model of the brain and the concept of central regulatory networks (CRNs) to demonstrate how information is processed from the lower levels of the brain—the brainstem, diencephalon, and limbic system—to the upper cortex and intellectual and creative functions of the brain. Along with the

² In 1889, Janet also coined the term “constriction of consciousness,” (van der Kolk, 2015) and in 1992, Herman (2015) in a synthesized complete history and understanding of trauma, referred to this experience as “the numbing response of surrender” (p. 35). These evocative terms reflect the same condition of interruption (lockdown of embodied cognition) referred to as those identified by transformative learning researchers referred to earlier.

development of the concept of flocking (seeking safety), his theory explained how regulation or dysregulation in the more primitive systems can affect thinking and learning (Perry et al., 2018).

In 1994, Stephen Porges (2018) introduced polyvagal theory, explaining how the vagus nerve—running from the back of the brain, behind the ears, down the spinal column, and wrapping around and connecting to the lungs, heart, and stomach—functions as a sensory system in neuroception, the *preconscious* detection of threat. This nerve supports the autonomic nervous system (ANS) housing two separate systems—the sympathetic and parasympathetic—contributing to the overall health and well-being of the autonomic nervous system.

The sympathetic system primarily controls the fight or flight response by preparing the body for quick action. This preparation includes elevating heart rate, enhancing respiratory capacity, redirecting blood flow to vital organs, inhibiting digestive functions, and releasing cortisol, along with other changes in preparation for physical exertion.

As an aside, in the late 1960s and early 1970s, Martin Seligman’s studies of learned helplessness with dogs cleared the way for understanding physiological processes in trauma. Specifically, findings showed, the production of cortisol (the stress hormone activating the fight, flight, or freeze response) does not always stop even after a threat has receded. When a trauma is not resolved, and the body continues to carry the sensory experience in the present, as if it were still happening, the body believes it is still under threat, maintaining both cortisol production and a lock down of embodied cognition.

This finding helped explain the adaptation to increased cortisol levels and supports the idea of taking residence in a comfort zone of avoidance for those with long-term trauma histories. Additionally, this idea led Maier and Seligman (2016) to reason that regulating and retuning the physiological systems would be helpful in stabilizing cortisol levels, further

supporting the importance of learning to embrace and sit in (regulate and retune) the sensory or emotional experiences of a disorienting dilemma to help unlock embodied cognition.

The second autonomic nervous system, the parasympathetic system, houses the dorsal and ventral vagal systems. During extreme stress, when interoception, responsible for the development of a preconscious perception of a threat, is unable to determine what the threat is and how to respond to it (prediction failure, identified by Barrett, 2017), this system is responsible for locking down embodied cognition (van der Kolk, 2015).

Thus, the dorsal system regulated by the reptilian brain plays a role in slowing down physiological functions, reducing heart rate, conserving energy, regulating visceral functions, and promotes a lizard-like behavior of withdrawal and isolation. Deb Dana (2018), founding member of the Polyvagal Institute, refers to this behavior as movement to a home away from home (corresponding to Mälkki's comfort zone), to avoid uncomfortable sensory or emotional experiences.

The long-term effects of a lock down of embodied cognition ooze into all areas of existence, affecting relationships as well, due to an inability to empathize, imagine, or play. Two basic premises of the polyvagal theory propose trauma disrupts connection to self, spirit, others, and the world (Porges & Dana, 2018), and a sense of safety can reestablish these connections. Porges identified the ventral system, the second system of the parasympathetic system, as the “biology of safety” (van der Kolk, 2015, p. 80) and integral to reestablishing regulation in trauma.

As an anchor to the self (when not in a lockdown of embodied cognition), the ventral system supports curiosity, interest, and questioning, and what might be observed in Phase 2 of the transformative learning process—self-examination. For transformative learning to occur,

connections to others (providing a sense of safety) helps resist being hijacked (van der Kolk, 2015, p. 59) by uncomfortable edge-emotions (Mälkki, 2011) to embrace the sensory and emotional experiences of a disorienting dilemma.

In summary, when a belief is challenged, the event “invokes a threatening emotional experience” described by Mezirow (1990) as a “leap into the unknown³” (p. 24). Perceived as a threat, this challenge initiates the felt sense microprocesses of fear, anger, and flocking, invoking the potential for a lock down of embodied cognition. Polyvagal theory shows us how this disorienting dilemma can physiologically affect the innermost sensory, emotional, and intellectual systems of the body and recommends focusing on how the vagal system has been impacted or “retuned” (Porges, 2018, p. 67) rather than attending to what happened. Enhancing the understanding of polyvagal theory, and learning how to successfully move through the sensory experience of trauma or a disorienting dilemma, will lead to removing the barrier of a lock down of embodied cognition, and support movement toward successful transformative learning.

Kübler-Ross (1970) Grief Process—A Corollary to Embodied Cognition

The following is a brief representation of the correlation of embodied cognition with Kübler-Ross’ (1970) grief process (stages identified in parentheses) in an experience of disorientation. Upon the experience of a disorienting dilemma, the microprocess of fear brings a sense of alarm about an awareness and disbelief about the reality of the situation experienced (stage 1 – denial). The body is motivated to action by the *preconscious* microprocess of anger (stage 2) and when flocking (stage 3 - bargaining) successfully finds safety in the context or identifies an action to be taken and action is taken, anger subsides. At this point, the conscious emotional microprocesses—working to stabilize the body’s physiology—acknowledges the loss,

³ Another term to add to the list of evocative terms describing a lock down of embodied cognition.

thwarting, or disappointment with a level of emotion (stage 4 – likely sadness or depression depending on the level of disorientation). The emotional and intellectual microprocesses continue to oscillate in an attempt to make sense and meaning of the experience. Meaning making eventually brings an understanding of the reality of the experience (stage 5 - acceptance) and eventual stabilization occurs.

Although individuals may vary in their abilities to respond to a disorienting dilemma, for the purposes of this research, I posit, the basic responses to a disorienting event elicits a level of fear, anger, and flocking. Adaptation, then, requires the *conscious* emotional microprocesses to complete the physiological processing of the disorienting dilemma with some sub- or supra-level of grief (sadness) and the intellectual function of embodied cognition.

Just as the body and mind have *natural* physiological resources available to heal themselves physically, they also have *natural* physiological resources for dealing with and healing from external life events. The emphasis on *natural* here is necessary to point out that microprocesses of embodied cognition, including emotion, are not harmful byproducts of the body's evolution; rather, they are necessary resources selected for healing and human survival.

The following vignette, based on the cartoon movie *Finding Nemo* (Stanton et al., 2003), illustrates the importance of embracing the natural physiological resource of embodied cognition.

Dory, a Blue Tang fish, suffers from acute forgetfulness yet maintains a mindful awareness and trust of the inner natural and spiritual resources that support her connection to the life world and guide her to new possibilities, knowledge, and wisdom. She also serves as a spiritual guide for Marlin, her fear-based, closed-minded, and reactive clownfish companion, who is searching for his abducted son Nemo. Throughout their adventure, Marlin, believing he always knows what is best, consistently resists

Dory's proposals about what they should do. Nevertheless, during their arduous search, Dory's attention to her sensory experiences keeps them on the right path and helps them confront and overcome dangerous encounters with deadly sharks and poisonous jellyfish. The two are consistently victorious because Dory knows how to embrace the uncomfortable sensory experiences of the body that might warn of danger or might be an invitation to new learning. Dory's lesson for us as a spiritual guide is to listen into and respect the natural sensory, emotional, and intellectual resources of embodied cognition, as it supports life and a connection to self and all living and non-living systems.

Marlin's philosophical perspective represents a rational epistemological outlook rooted in reason and logic. On the other hand, Dory's ontological perspective centers on being emotionally, intellectually, and relationally connected to self and the life world. Thus, Dory's view conveys a more intuitive or experiential understanding of existence constructed through relationship, in connection to all parts of a living system (Lange, 2018), and embodied cognition is "a kind of language for helping us learn about these relationships" (Dirkx, 1997, p. 82).

A Clarification of Terms

In this research, several terms and theoretical concepts align with corresponding terms and concepts found in other theories. As stated in the chapter summary, I will use italics to highlight *preconscious* and *conscious* microprocess of embodied cognition, primarily to remind the reader of the natural physiological processes occurring outside of consciousness in support of embodied cognition. When applicable, I may also use parentheses to identify sensory or emotional terms, or correlating terms from different frameworks.

Indeterminacy—A Disclaimer

The concept of indeterminacy asks us to consider the countless number of historical, intergenerational, psychological, emotional, biological, physical, racial, ethnic, gender, sexual orientation, educational, religious, familial, parental, social, cultural, socioeconomic, geographic, variables, as well as other random variables, such as access to housing, transportation, or medical care, hair color (whether genetic or chosen), a recent meal, the time of day, or owning a pet—as they intertwine to design completely distinct and unique individuals who perceive and understand disorienting experiences differently from one another.

Hence, it cannot be determined what level of processing of embodied cognition any one person might need to resolve a disorienting dilemma. This research expects to understand the physiological aspects associated to transformative learning, bring the concept of embodied cognition to light, and acknowledge the emotional function of a grief process as a service to this process.

Preconscious and Conscious Microprocesses of Embodied Cognition

The following offers a clarification of states of consciousness to better understand their use in this research.

Preconscious	Conscious	Conscious or Unconscious
a) The felt sense (Gendlin, 1991) or Edge-emotion (Mälkki, 2011) - fear		
b) The felt sense (Gendlin, 1991) or Edge-Emotion (Mälkki, 2011) - anger		
c) Flocking (Perry, 2018)		
	d) Emotion/Grief Process (Kübler-Ross, 1970)	e) Intellect/Comfort Zone (Mälkki, 2011)

Figure 1. *Microprocesses of Embodied Cognition—Positioned in Their Relative State of Consciousness*

Preconscious, Conscious, Sub- or Unconscious States

Levels of consciousness (Figure 1) are distinguished as

- a. *preconscious*: sensory information below the level of conscious awareness; however, can easily be recalled later (fear, anger, flocking);
- b. *conscious*: the raising of awareness to sensations, emotion, and thoughts in the environment (emotion, intellectual);
- c. *subconscious*: mental processes that occur below the level of conscious awareness, a term Freud originally used but later changed to the
- d. *unconscious*: mental processes that are not accessible to conscious awareness.

Specifically, in the case of trauma, this might include repressed memories, unresolved conflicts, and deep-seated beliefs and fears that influence behavior and emotions.

1. The three *preconscious* microprocesses and purposes of the felt sense (Gendlin, 1991):

- a. *fear (edge-emotions; Mälkki, 2011)* - informs the body of a threat (Gendlin, 1991);

- b. *anger (edge-emotions;* Mälkki, 2011) - motivates a body to action (Gendlin, 1991);
and,
- c. *flocking* (Perry et al., 2018), a behavioral attempt to find safety in the environment;
- d. *all three* provide stabilization and the ability to move to subsequent processing of emotion and intellect in embodied cognition, or the avoidance of any further emotional or intellectual processing in a lockdown of embodied cognition.

2. The two *conscious* microprocesses and purposes of embodied cognition:

- a. *emotion*, generates healing from disorientation when necessary; and continued support of the intellect, and
- b. *intellect*, executes sensemaking and meaning making.

The Use and Misuse of the Term “Feeling” to Represent Sensory, Emotional, and Intellectual Experiences

The following discussion of sensory, emotional and intellectual experiences and the use and misuse of the term “feeling” to represent these three experiences, is meant solely to create perspective and maintain clarity for this research. In the same way, I use the Junto wheel (Figure 2), based on Paul Eckman’s (2003) work on facial expressions and emotion, as a visual reference, not empirical evidence about sensory, emotional or intellectual experiences.

I submit there are diverse and sometime conflicting perspectives in psychology, neuroscience, and the cognitive sciences regarding these concepts. Thus, it is important to stay abreast of current research to keep up to date regarding these perspectives.

For this research, the conceptualizations of sensory, emotional, and intellectual experiences are described using Barrett’s (2017a) theory of constructed emotion. According to this theory, sensory experiences are considered *preconscious* experiences of cognition, and

emotional and intellectual experiences are considered *conscious* experiences of cognition. Whether it be a *preconscious* sensory, a *conscious* emotional, or a *conscious* intellectual experience; maintaining a distinction between them using Barrett’s (2017a) theory will simplify understanding what might be causing a lockdown of embodied cognition. Further, these distinctions will help identify what can be done to unlock embodied cognition to allow subsequent movement through transformative learning.

The Term “Feeling”

The Oxford English Dictionary (OED; 2023) defines a “feeling” as “an emotional state, a reaction, and a belief, especially a vague or irrational⁴ one.” In other words, as implied by this definition, a feeling can be a sensory experience (reaction), an emotional experience (state), or an intellectual pursuit (thought/belief). While sensory, emotional, and intellectual experiences may all be characterized by using the word “feeling” to represent something “felt,” technically intellectual experiences are cognitive processes, not sensory or emotional experiences. There may be a sensory or emotional energy underlying the thought, however, if this energy is not identified, the intellectual experience becomes unclear.

For example, if an individual states, “I feel that you are being rude,” this might simply be an expression of a thought, belief, or judgment about something, information being passed on. However, if the term *feel* is used instead of, a sensory or emotional term (perhaps angry or sad) when referencing the thought, this may indicate the sender of this message perceived something to be a personal attack and is making an attempt to avoid the “feeling,” or distract from the actual sensory or emotional experience (Torre & Lieberman, 2018). If the intention is the latter, “I feel

⁴ The term *irrational* was often used to refer to intellectualizations or thoughts effected by emotion. Now that emotion is considered an extra-rational function in cognition, the term irrational here is associated to the development of an intellectual concept, such as a belief, signifying how the organization of thoughts are deemed rational or irrational.

annoyed (sub-level of anger) when you are rude,” is clearer. Then the other might be able to respond with an apology, rather than just think they are being told they are rude.

A good rule of thumb to discern the difference between a sensory or emotional experience from an intellectual experience, is to replace the word “feel” with the word “think” in a sentence. If the sentence still makes sense, it is primarily an intellectual experience. For example, in the statement “I feel you are not being fair,” replacing feel with the word think produces the sentence, “I think you are not being fair.” The word think makes sense in this statement; therefore, the experience is primarily an intellectual pursuit stating a belief, judgement, or simply the sharing of information. If the goal for the communication was to express how one feels when “you are not being fair,” the sentence “I feel irritated when you are not being fair,” is clearer.

On the other hand, using the statement “I feel angry” and replacing the word feel with the word think produces the statement, “I think angry.” Obviously, the word feel makes more sense here, identifying the statement as primarily a sensory or emotional pursuit. Another rule of thumb regarding the clarity of an experience, involves the use of the words “like” or “that” following the word feel. For instance, in the statements “I feel *like* you are being rude,” or “I feel *that* you are being rude,” it is not clear if what is being communicated is a sensory or emotional experience, or simply a judgment or criticism.

When individuals do not understand that thoughts create feelings, they tend to believe “feelings” originate autonomously, leading to a perception they also have no control or power over their “feelings,” specifically, uncomfortable ones. This often results in a lockdown of embodied cognition as there is a tendency to resist, avoid, or distract from uncomfortable feelings such as fear, anger, and sadness.

Conversely, when an individual understands that emotional experiences originate from thoughts, they recognize their power to take action (i.e., hold their experience object) by changing the thought and they are able to detach from the sensory or emotional experience. Specifically, for this research, detachment is defined as maintaining a personal sense of empowerment by disentangling oneself from unhealthy thoughts, and utilizing the unconstrained energy to focus on one's personal growth, self-care, and emotional well-being.

In disorientation, it helps to know the initial *preconscious* feelings of fear are nature's warning of a threat and anger is nature's way to motivate action. These experiences are typically spontaneous, uncomfortable, and occur preconsciously. *Conscious* experiences of emotion tend to be long term experiences, and can be uncomfortable as well. Both, however, preconscious and conscious experiences can be willfully shut down causing a lock down of embodied cognition.

When allowed to do their job, sensory experiences support awareness and motivation to take action, alleviating the sometimes-uncomfortable feelings meant to support life. Once the *preconscious* experiences are regulated, the *conscious* emotional and intellectual functions of cognition can come on-board to process healing when necessary and support processing of new learning.

This discussion serves to ask the reader, while reading the transcripts of the participants to keep in mind,

1. *preconscious* sensory experiences are spontaneous and often seem to come from nowhere;

2. sometimes *preconscious* sensory experiences (fear and anger) are referred to as emotions, however, as *preconscious* sensory experiences, they are not quite yet emotions (Barrett, 2017);
3. when action is not taken to resolve a threat and the *preconscious* energy of fear and anger build into a *conscious* emotional experience, these are provoked by thoughts and do not arbitrarily arise from nowhere to initiate thoughts. However, once emotional experiences are initiated by thoughts, a sensory or emotional experience may sustain an *intellectual* experience (as in an experience of anxiety) or cause a lock down of embodied cognition (van der Kolk, 2015);
4. there are subtle differences between sensory, emotional and intellectual experiences in disorienting dilemmas and they need to be clarified to understand what may be effecting embodied cognition;
5. both *affect labeling* (naming the actual feeling, i.e., angry or sad) or converting an emotional state to an intellectual concept (i.e. using a generalized or abstract word like *difficult* or *hard* instead of the actual feeling name), can help support a decrease in intensity of the “feeling,” or allow distraction from (avoid) the sensory or emotional regulation of energy (Torre & Lieberman, 2018);
6. resolving *preconscious* sensory experiences, due to a threat, primarily takes a form of behavioral action (fight or flight); however, to resolve a *conscious* emotional experiences, more often the action necessary *is* to express the stored energy from the body and change the thought provoking the experience;
7. knowing the stage of embodied cognition a participant is in, can help identify the stage of the grief process they are in, and vice versa, knowing the stage of grief, can

identify the stage of embodied cognition. This helps to clarify the cause of a lock down of embodied cognition.

Sense

According to Gendlin (1991), the inceptual *preconscious* felt sense refers to the physiological sensory function of embodied cognition, the experience occurring prior to a *conscious* emotional experience. The felt sense invokes a "vague, implicitly complex, physical feeling that can come in your body in regard to any situation or any aspect of life[,] . . . [is] slightly less intense than an emotion[,] and [is] necessary to give rise to emotions" (p. 255). Gendlin's concept of the felt sense refers to the first two *preconscious* microprocesses of embodied cognition—the sensory experiences of fear and anger—also referred to as edge-emotions (Mälkki, 2011).

According to Barrett (2017a), a *preconscious* sensory experience on the body, activated by stimuli in the context, integrates with personal historicity in the body or "the location of meaning" (Freeman, 2017, xiii), to determine (predict) what is happening outside the body (Barrett, 2017a). If information from a previous similar experience is stored in the personal sensory historicity, interoceptive activity brings to *consciousness*, by way of a perception, a conceptualization of what the experience is, so action can be taken.

If a *preconscious* sensory experience is not recognized (prediction failure), the body's alarm system (the amygdala) informs the body of a possible threat (Barrett, 2017a). This alarm is typically felt as an instantaneous burst of energy and often identified as fear (van der Kolk, 2015). This sensory experience can continue for short periods or sporadically over time until some form of action motivated by anger is taken to alleviate what may be considered a threat.

Taking action might include stopping what is happening, processing the sensory

experience by sitting in it and moving through it, or changing a habituated thought or belief. If action is not taken toward the threat, an atmosphere of charged energy (affect) elicited by the continuous *preconscious* sensory warning, over time, begins to construct what becomes a more intense *conscious* sensory experience, an emotion (Barrett, 2017a).

Sensations (and emotions) have sub- and supra-levels of intensity. For instance, a sub- or supra-level term on the fear spectrum (Figure 2) might include fright, horror, scared, nervous, or worry, all indicating levels of fear and presumed to be a *preconscious* experience. However, the word worry implies having a persistent thought about something concerning, hence, as an intellectual pursuit, it is considered a *conscious* intellectual experience, ultimately eliciting a sub- or supra level of fear, fright, horror, underlying the thought.

How about the term anxiety (a level of fear). This experience can last for a very long period of time, sometimes years, and might be considered an emotion, however, this continued sensory experience of fear indicates the alarm is still being triggered by the perceived threat and indicates action has not been taken to resolve the threat. Thus, anxiety, as a perpetual re-activated experience would more accurately be considered a *preconscious* sensory experience.

Anger, like fear, has sub- and supra levels of intensity such as upset, irritated, furious, and hate. Again, if action is not taken to eliminate the threat, this sensory energy can develop over time into an outward expression of emotion (as hate) and harm self or others, or compromise the physiological processes of the body (such as the immune system) and develop disease. These edge-emotion of fear or anger can be short-lived or long-term depending on how long it takes an individual to act upon the threat or for safety to be secured from the environment.

1991), will be considered primarily short-term preconscious sensory experiences in a disorienting dilemma.

Emotion

Regarding emotions, Gendlin (1991) stated,

Emotions are a short list. I mentioned anger, fear, guilt, shame, and of course joy, triumph, sorrow, jealousy, and awe. There is no agreement on which further ones should be included, and one can see why. There is a very wide range of "feelings" that are not all called emotions. Some of these do have names (e.g., hope, disappointment, helplessness, longing, depression, being overwhelmed, missing someone, embarrassment, looking forward to something, feeling as if someone is always about to criticize you)—these too are feelings. So, it was always absurd to think of human feelings as only emotions. These others do at least have names, but there is a vast gamut of other feelings, that we all know, yet have no names (p. 262).

Gendlin (1991) acknowledged the difficulty of differentiating emotions from other sensory or intellectual experiences, and as such no clear empirical evidence across disciplines differentiates sensory experiences from emotional or intellectual experiences (Izard, 2009; Lange, 1885). Disorienting dilemmas may involve mild forms of loss, thwarting, or disappointment, like losing one's keys, being late for an appointment, or missing out on a great deal; the initial sensory experiences associated to these minor experiences are generally easy to resolve, and go by largely unnoticed.

However, in the case of a more serious loss, thwarting, or disappointment, the *preconscious* energies of fear and anger (edge-emotions), when ignored or resisted, lock down the thinking brain (pre-frontal cortex). The emotional function of cognition begins to generate a

significant amount of energy or an atmosphere of preconscious energy—“affect”—eventually settling into a long-term experience or emotion, such as anxiety (unresolved fear), rage (unresolved anger), or depression (unresolved sadness).

Identifying an intellectual term as a “feeling,” rather than stating the actual feeling, makes it easier to ignore or bypass the discomfort of the sensory or emotional experience (Torre & Lieberman, 2018). Ultimately, when individuals do not know how to identify and speak clearly to what they are feeling to release the associated energy, unexpressed energy intensifies over time becoming unmanageable and as Freud (1915, 2016) stated “comes out in uglier ways,” generating the justification for considering them inappropriate expressions or experiences.

More alarming, when deterred from expressing sensory or emotional experiences effectively, individuals may turn to self-destructive ineffective “coping” skills, such as drugs, alcohol, gambling, eating, cutting, shopping, gaming, social media, and many other compulsive behaviors, to distract from these sensory and emotional experiences. These ineffective “coping” skills are not coping skills. They are attempts to distract from and avoid the perceived discomfort of a particular sensory or emotional experience, and often lead to addiction and serious physical health issues.

Working to maintain clarity around the concepts explored in this research and using Barrett’s theory, I will speculate on Gendlin’s (1991) list of emotional experiences or conceptualizations, and suggest fear, anger, triumph, joy, and awe are primarily short-term *preconscious* sensory experiences with fear and anger having the potential to become an emotion; sorrow is an intellectual conceptualization of having lost something, with a underlying *conscious* emotional experience of fear, anger, or sadness about what has been lost; and guilt, shame, and jealousy are *conscious* intellectual experiences with underlying emotional

experiences. For example, guilt involves thinking “I have done something wrong,” shame involves thinking “I am or bad,” and jealousy involves thinking “I want what you have.”

Typically, people say they *feel* guilt, shame, and jealousy; however, these are thoughts, not feelings. There may be an underlying sensory or emotional experience, such as fear, disappointment, or sadness, causing the thought to be referred to as a “feeling.” An accurate statement regarding one of these experiences might be, “I feel fear when I am jealous [thinking about you being with another]” or “I feel sadness when I realize [think about what I have done] I am guilty.”

Regarding hope, disappointment, helplessness, longing, depression, being overwhelmed, missing someone, embarrassment, looking forward to something, feeling as if someone is always about to criticize you, I suggest the following. Hope is a thought about wanting something to happen, with an underlying sense of excitement or fear about it happening or not happening; disappointment is a sub-level of sadness with a hint of anger; helplessness is a thought (“I am unable to do anything”) with an underlying sense of fear or sadness; longing is a thought (“I want something”) with an underlying sense of sadness about not having it or being able to have it; and depression is a supra-level experience of an unresolved sadness (with no action taken).

Being overwhelmed is caused by a thought (“there is too much to do, to experience,” etc.) with an underlying sense of fear about being able to manage it all; missing someone involves a thought of someone who is not present, with an underlying sense of sadness; embarrassment is a thought of having done something foolish or without thinking, and an underlying sense of sadness for not having thought through the situation or a sense of fear about being judged; looking forward to something involves a thought (“I want to experience this”) with an underlying sense of excitement or hope that it will happen; feeling as if someone is always about to criticize

you involves thinking defensively (of what have I done), with an underlying sense of fear of rejection, judgment, loss of respect, or the loss of love.

With respect to the six designated emotions identified in the Junto wheel in the preceding figure—love, joy, anger, sadness, fear, and surprise and related emotions—I suggest love is a decision (choice), hence an intellectual activity, with underlying sporadic sensory or emotional experiences of joy, anger, or sadness. Joy, fear, anger, and surprise are initially immediate *preconscious* sensory experiences (not yet emotions); and sadness is a *conscious* emotion.

Intellect

The intellectual function of cognition involves gathering, organizing, and understanding new intellectual information. For this research, the intellectual experience is not considered a sensory or emotional experience, however, as this research is focused on disorienting dilemmas, intellectual experiences such as these are often accompanied by uncomfortable sensory or emotional experiences. When these experiences are locked down, the intellectual functions of embodied cognition are also affected.

To unlock embodied cognition, movement through the sensory and emotional experience is necessary. According to Mälkki (2019) this involves “lingering on” in the discomfort and allowing it to pass naturally; Nicolaidis (2008) describes it as an “acceptance of the pervasive nature of ambiguity” (p. 236); and Brach (2004) suggests radical acceptance.

To conclude this section, it is crucial to point out, participants were asked to member check the researcher’s comments regarding participants’ use of terms, indications of avoidance or para-linguistic cues, or positioning in the grief process, to confirm or disconfirm statements made by the researcher.

Problem Statement

What you resist not only persists but will grow in size.

—Carl Jung

Life is full of obstacles that force us to come to understandings we cannot fathom. For this research, these experiences are identified as disorienting dilemmas (Mezirow, 1978). In these moments, the *preconscious* sensory microprocesses of embodied cognition—fear, anger and flocking—generate a response to a perceived threat and are sometimes too difficult to bear. Consequently, these *preconscious* experiences are resisted or avoided, engaging a lockdown of the *conscious* functions of embodied cognition—emotion and intellect. The problem, without access to the *conscious* microprocesses, the path to a whole-body process of transformative learning is inhibited.

Moreover, a lockdown, or freeze response, can sometimes last for years, inhibiting one's capacity for healing, understanding, growth, development, and transformation over time. Depending on the severity of the disorienting dilemma, as in trauma, the sensory experience remains in the body, holding the event in the present (van der Kolk, 2015). Memories cannot be formed without movement to and through the conscious function of emotion (Levine, 2015) and eventual resolution through the intellect, moving it to the past. Overtime, without action, a residual “affect” (Barrett, 2017b, p. 6), or accumulation of stored, unprocessed energy (fear, anger, sadness), can become overwhelming, ultimately developing into debilitating anxiety (fear), violence (anger), and depression (sadness). Transformative learning cannot flourish in these states.

Confounding a lockdown or freeze response, is a misunderstood stoic (little “s”) value or belief, misconstruing the values of Stoic (big “S”) philosophy (Aurelius, 2002). This stoic value

implies when difficult life events occur, “enduring pain without expression of emotion” is a sign of strength and good character. According to Aurelius (2002), Stoic philosophy promoted instead, exercising “the art of acquiescence” (p. 172); when dealing with difficult life events, it is best to demonstrate “a reluctant acceptance without protest.” I contend, over time, the latter notion has become misconstrued and now supports the suppression of emotions necessary to well-being and human survival (Carter & Nicolaides, 2023; Damasio, 1999; van der Kolk, 2015).

Purpose Statement

Unexpressed emotions never die; they are buried alive and come out later in uglier ways.

—Freud

For forty years, conversations about the lack of an emotional dimension to Mezirow’s (1978) theory of Transformative learning have persisted. Drawing from neuroscientific research, utilizing Gendlin’s (1991) concept of the felt sense, and employing Barrett’s (2017a) theory of constructed emotion, I explored the prospect of an emotional dimension consisting of *preconscious* and *conscious* microprocesses of embodied cognition and a grief process for recovering from the uncomfortable disorienting dilemmas identified as Phase 1 of the transformative learning process. Therefore, the primary purpose of this research was to explore the lived experience of embodied cognition in a disorienting dilemma, with a specific focus on the role of the *preconscious* felt sense and *conscious* emotional experiences as they initialize or inhibit the transformative learning process.

Navigating obstacles in life can be particularly challenging, especially when one encounters new knowledge that disrupts existing understandings. As Lahey et al. (2011) stated, “what we [do] not know we [do] not know” (p. 24) or realize, is our developmental journey

involves a continuous experience of different levels of loss, thwartings, and disappointments (Kegan et al., 1982). Transformative learning requires processing the loss, thwarting or disappointment and disentangling oneself from old knowledge to make sense of new knowledge. Not only does the process require a sorting of intellectual information, but also attending to the residual sensory (fear and anger) and emotional (sadness) energy associated with these experiences. Accordingly, I propose a grief process as a construct of the emotional dimension will alleviate these experiences, avoid the lockdown of embodied cognition, and support a successful transformative learning experience.

Hence, the purpose of this research expects to:

1. to enhance Mezirow's (1978) theory of transformative learning by identifying the microprocesses of embodied cognition and develop a conceptualization for an emotional dimension to his theory;
2. to enhance Mälkki's (2011) theorizing of the nature of reflection in Mezirow's (1978) transformative learning theory;
3. to enhance Kübler-Ross's (1970) theory of grief by proposing it as a component of the emotional dimension of transformative learning theory and underscore its importance in developmental processes as a natural physiological resource for healing from minor and major disorienting dilemmas;
4. to better understand the *preconscious* and *conscious* microprocesses of embodied cognition, specifically the role of sensory and emotional experiences as equally important function to cognition as the intellectual functions;

5. to generate new ideas and strategies for unlocking embodied cognition after a disorienting dilemma, supporting transition through the transformative learning process;
6. to bring these ideas and strategies to adult pedagogy to provide an understanding of how the roles of the *preconscious* and *conscious* microprocesses of embodied cognition are natural (i.e., of nature) and integrated functions in cognition and vital to transformative and whole-body learning;
7. to respond to calls from transformative-learning researchers for more information regarding:
 - a. the emotional dimension of transformative learning theory (Taylor, 1997, as cited in Mezirow, 2000a, 2007),
 - b. the microprocesses (Mälkki & Green, 2014) of the emotional dimension, involving
 - i. phasic transitions (Kessler et al., 2009) and
 - ii. what happens between these phases (Baumgartner, 2012),
 - c. barriers to self-examination and critical reflection (Mälkki, 2011) that obstruct successful transformative learning,
 - d. and “why some disorienting dilemmas lead to perspective transformation and others do not” (Taylor, 1997, p. 45);
8. to “unsettle traditions” (Thiel & Hofsess, 2020) by raising awareness about a pejorative view of emotion, encouraging the avoidance and expression of sensory experiences, provoking the lockdown of embodied cognition, stalling emotional experiences necessary to healing, and impeding transformative learning;

9. to further advance healing and successful transformative learning (Sands & Tennant, 2010) by supporting the importance of contextual safety and social connection; and,
10. to develop an ecological understanding of “living creatures as embodied with their environment” (Dahlberg et al., 2016).

Research Question

The following research question guided this narrative study:

- RQ1: What is the lived experience of sense making and meaning making through embodied cognition in a disorienting dilemma?

Significance

If your everyday practice is to be open to your emotions, to all the people you met, to all the situations you encounter, without closing down, trusting that you can do that—then that will take you as far as you can go. And then you’ll understand all the teachings that anyone has ever taught.

—Pema Chödrön, Buddhist Teacher

First, by identifying the natural physiological microprocesses of embodied cognition in the transformative learning process, this research extends Mezirow’s (1978) theoretical framework and enhances Mälkki’s (2011) theorizing the nature of reflection. The significance of this information addresses the necessity for stabilizing the sensory and emotional physiological systems essential to navigating the loss of old assumptions and knowledge, assimilating new information, and developing new frames of reference in transformative learning.

Second, the significance of integrating a grief process mitigates the potential for a lockdown of embodied cognition by supporting the idea of a grief process as a construct of the emotional dimension of transformative learning. The grief process serves to support emotional

healing, assist in accessing the intellectual functions of cognition in the subsequent phases of self-examination and critical reflection, and increase the likelihood of a successful transformative learning experience. Consequently, this merger enhances Kübler-Ross's (1970) theory by relaxing the persistent connection to death and dying, and foregrounding its broader use in the process of learning.

Third, this research is significant for responding to calls from transformative learning researchers for more empirical studies focused on Mezirow's (1978) theory, to generate knowledge about the transition through the initial phase of transformative learning, to identify an emotional dimension, to identify barriers to Phase 3, critical reflection, and understand what factors lead to transformation, such as safety and connection.

Fourth, when presented to adult educators and adult learners in classroom settings and “nonformal education[al] sites” (Sands & Tennant, 2010, p. 118), the information gleaned from this research will advance understanding the physiological processes of a disorienting dilemma, the barriers that effect transition to other phases of the transformative learning process and help foster an increased sense of safety for processing embodied cognition in the classroom.

Finally, the knowledge gleaned from this research will be significant in ameliorating the old stoic value of suppressing emotion, by increasing societal awareness and understanding of the need to experience—not avoid—sensations and emotion during a disorientation, in turn advancing adult development, well-being, and a healthier society at large.

Exploring Stoic Philosophy and the Concept of Embodied Cognition

In reality, Stoicism is not about suppressing or hiding emotion—rather, it is about acknowledging our emotions, reflecting on what causes them, and redirecting them for

our own good. It is also about keeping in mind what is and what is not under our control.

—Pigliucci, 2017

In my work over the past 40 years and specifically as a psychotherapist for the last 29, I have encountered many who have felt the need to, or believed they needed to, and sometimes were not even aware they were, resisting the expression or processing of sensory and emotional experiences necessary to emotional health. I chose to add a layer of depth to this research, to briefly introduce the perspectives of the Stoic school of philosophy (Aurelius, 2002) and reflect on a longstanding perspective about a firmly rooted belief, which may be a barrier to the successful completion of a transformative learning experiences.

This belief has to do with what is referred to as the (little ‘s’) stoic value of enduring pain without the expression of emotion. I submit this belief represents a pervasive sociocultural misinterpretation of what was meant by the big ‘S’ Stoic philosophy. According to Stoic philosophy (Aurelius 2002), one is expected to *accept or acquiesce, reluctantly*, to the difficulties life presents, *without protest*. This value emphasized having faith in logos (nature) and trusting that whatever is, is right.

Although there appears to be a diminishing stigma regarding mental health and therapy, a stigma about expressing sensory or emotional experiences continues to persists. I continue to encounter clients who apologize, sometimes profusely, for their inability to restrain their emotions and openly declare they were determined *not* to cry (or express fear, anger, or sadness) while in session. When asked why, they inform me of their need to be strong or to not show signs of weakness.

Almost 30 years ago, I created an anecdote to chronicle the viewpoints, over time, about emotions to help my clients understand how a cultural value erroneously created the

indoctrination of “enduring pain without the expression of emotions.” This anecdote makes use of the television series *The Waltons*, *Little House on the Prairie*, and *Leave it to Beaver*, as well as the American Gothic painting to create my “spiel.”

I explain, during the agrarian era (and earlier periods) acceptance of the little ‘s’ stoic idea of enduring pain without the expression of emotion may have been necessary because such times were difficult for families who were solely responsible for providing for themselves. In these times, people needed to be “human doings,” working from dawn to dusk, to survive. In an era focused on working and surviving—with few opportunities to connect intimately or spiritually with self or one another—effective communication about feelings was rare. Values imbedded in phrases like “deal with it,” “get over it,” or “get back to work” were often used to redirect emotional expression.

However, during the industrial revolution of the 1950s and the ushering in of a modern era, the gravity of these values began to diminish, and the need to be in a constant mode of survival or constantly “doing” had all but faded away. There were now more opportunities to be “human beings,” to find one’s true nature, and to “be all you can be” (as the commercial for the U.S. Army advocated). The problem: there was no understanding or awareness of what it meant “to be.”

Television shows like *Leave It to Beaver*, with portrayals of the ideal life demonstrated by the iconic June and Ward Cleaver (Beaver’s parents), helped individuals learn more about what “to do” than how “to be” in this new world. As a result, people began to focus on doing what others were doing and “keeping up with the Joneses”—by teaching them how to “do” like others. Development involves growing all natural spiritual, physical, intellectual, creative, psychological, and emotional resources, not just the ability to do the work of survival.

Specific to emotional and psychological development, learning to express sensory or emotional energy as it arises, makes it easier to move through, as it does not accumulate and become more unbearable. Who knew, releasing naturally generated sensory and emotional energy needed in times of disorientation would support any learning as well as transformative learning.

Recently, I read Marcus Aurelius's *Meditations* (2002) and his reflections on the school of Stoic philosophy, originating circa 300 BCE. This brought to my attention what I surmise was the original conceptualization of the Stoic value and an understanding of how it might have been misconstrued over time.

The Stoic Philosophy

The foundation of Stoic philosophy, established by the philosopher Zeno in 300 BCE (Aurelius, 2002), considered "logos" (p. xx) a force of energy utilizing the power of pneuma to bring life to all objects of nature (material, physical, human, and events), embodying them one to another. Additionally, logos or nature was thought to be benevolent and consistently progressing toward advancement and betterment, even when unfortunate events happen (Aurelius, 2002).

The earlier Greek concept (Middle Stoicism) espoused a speculative and theoretical view of thought as a holistic system of knowledge. For example, because the Greeks believed logos evolved in an orderly fashion, they concluded that all aspects of logos, such as language or formal logic, must be orderly as well. Later, however, the Romans simplified these core concepts of the philosophy into practical "mortal questions" (Aurelius, 2002, p. xix) that could be used to design a practical life. This became known as Roman Stoicism.

When Romans identified an individual as stoic, it meant something different than what was meant earlier by the Greeks (Aurelius, 2002). According to Aurelius, a Roman emperor who

ruled from 161 to 180 AD, humans are participants in the universal logos, and as a philosopher of stoicism, he encouraged living as logos (nature) requires. Thus, one must cooperate with the world (objects and living things) actively for the collective good. “Actively” meant participating in society, as it is necessary to the evolutionary process of the logos. Hence, one must participate to gain new knowledge from every experience and then pass this new knowledge on for the continued survival of the species. This perspective of Stoicism was later adopted as a quasi-religion by Roman elites and design for living.

As an emperor, Aurelius was entrenched in royalty and wealth, however, he was considered a benevolent statesperson and preferred to serve in the administrative work of the Senate rather than involve himself in matters of power. He especially enjoyed dealing with legislative decisions involving freeing slaves or determining regulations regarding the guardianship of orphans. Aurelius’s ideal concept of participation involved treating others justly or equally.

In the latter years of his life (170s CE), Aurelius began participating in philosophical discussions of the day, although he did not see himself as a philosopher but simply as a student of life. He did not believe in differentiating people for any reason since every individual is part of the natural logos (which is always benevolent, good, and right), hence everyone deserves to be valued as such (Aurelius, 2002). Aurelius died at the age of 58 (180 CE), and his *Meditations* foregrounds his perception of a practical approach to examining and living a life of peace.

The Doctrine of the Stoic School of Thought: Three Disciplines

The doctrine established by the Roman Stoics involved three disciplines—phantasia/perception, action, and will—all of which were considered necessary to the development of knowledge and understanding. Knowledge, according to the doctrine, is

produced and controlled by the universal force, the logos, and, consequently, the rational and moral aspects of a person. Stoics believed, however, that this process of knowledge production could be influenced by "hegemonikon" (Aurelius, 2002, p. xxvii), a controlling element of the mind/soul that guides the individual through the intellectual functions of cognition.

In a systematic reconstruction of the Stoic theory of emotion, Graver (1999) concluded that assent (acceptance) assigned to the felt sense (involuntary pre-emotional experience) can effect an individual's perception of an experience as good or evil. In turn, the accompanied behavior or action taken is determined as rational or irrational. Thus, a conscious experience of fear arising as the result of applying a negative or evil connotation to an impression or perception delivered by the felt sense, would be determined an irrational action by Stoic philosophy.

When conscious awareness is advised by the felt sense through the use of a natural alarm, this results in a prediction (Barrett, 2017a). This means the need for the alarm was determined preconsciously through interoceptive activity, using the knowledge of personal sensory historicity of the mind/body, a life-sustaining natural resource provided by nature. Thus, as the felt sense is considered the location of meaning, what the body/mind perceives, due to a previous encounter and the meaning derived by that encounter, is considered rational. Hence, the mind/body preconsciously knows and this knowing is knowledge, nonetheless. How one responds to this knowledge, or the derivation of the impression received, is another matter.

The Three Disciplines of the Stoic Doctrine Correlated With Embodied Cognition

The inceptual felt sense (Gendlin, 1991) consists of the first three *preconscious* microprocesses identified in embodied cognition and are considered by (Mälkki, 2011) as edge-emotions. These three *preconscious* microprocess include fear, anger, and flocking. The felt sense initiates the gathering of sensory information (external with internal) to create an

"interoceptive summary" (Barrett, 2017a, p. 9) or perception of the unfolding experience. According to Gendlin (1991), this sensory interaction and use of the body's historical knowledge creates "a knowing" (p. 256) that eventually generates a conscious awareness via the perception. Merleau-Ponty (2013) identified this as "sense-datum" (p. 143), or the way the body knows or understands. This interoceptive activity eventually identifies a "prediction" (Barrett, 2017a, p. 7), or understanding of the perception, and informs the body to prepare for action. When the interoceptive activity fails to recognize the sensory input and is unable to form a prediction, this is considered a "prediction failure" (p. 11). The following explores how these three microprocess relate to the three disciplines of the doctrine of Stoic philosophy.

The First Discipline, "Phantasia," as It Relates to the "Felt Sense" in Embodied Cognition

Accordingly, the first of the three Stoic disciplines, "phantasia" (Aurelius, 2002, p. xxvii), correlates with the experience of the first microprocess of embodied cognition, fear. This experience is characterized as a bombardment of sensory information on an individual, coming from the context or world and resulting in what Merleau-Ponty (2013) and Aurelius (2002) refer to as an impression. Barrett (2017a) identifies this as neuroception—the *preconscious* detection of threat. This process simply involves the reception of and intermingling of sensory information with that of the body/mind and seeks to identify the source.

According to the Stoics, an impression instigates the making of a perception, as historical information continues to intermingle, and eventually identifies the source of the sensory experience. Informed by Stoic concepts, phantasia (or the inceptual microprocess of embodied cognition, the felt sense) facilitates the movement of the preconscious body awareness to a conscious mind awareness, by generating an instantaneous image presented to consciousness, giving rise to a perception.

A perception generates an immediate awareness or understanding of the threat and may be followed by an action motivated by the next *preconscious* microprocess of the felt sense, anger. Here, however, "hegemonikon" (Aurelius, 2002, p. xxvii), or the intellectual function of cognition, is believed to guide an individual's particular value judgments, affecting or generating different experiences of the perceptions and the possibility for different actions. All perceptions, according to the Stoics, are still "of nature" and therefore for the good. However, in a disorienting dilemma, with a lockdown of embodied cognition, there is no perception; fear, anger, and flocking render the individual disoriented, and understanding is obstructed (van der Kolk, 2015).

The Second Discipline, "Action," as It Relates to "Edge-Emotion" in Embodied Cognition

The second discipline of Stoic philosophy, action, relates to the second microprocess of embodied cognition, the sensory experience of anger. As a preconscious state (occurring before conscious awareness) anger may be demonstrated as frustration, annoyance, aggravation, or irritation until the perception is received and the knowledge about what to do becomes available. Anger or any sub-level of anger motivates an individual to action. This action might come from a number of possibilities, depending on level of threat. It might be asking a question, making a decision, moving something, or it might even involve a fight or flight response.

In a disorienting dilemma, an experience of an impression without a perception, stalls the anger response and can create a sense of fear, nervousness, anxiousness, accompanied by flocking. Flocking is a preconscious monitoring of other or the environment prior to the appearance of anger and movement toward action, looking to make sense of the situation or find some source of safety (Perry et al., 2018). If nothing is ascertained, a freeze response occurs (van der Kolk, 2015, p. 54).

This freeze response, supported by edge-emotions, involves the locking down of the fourth and fifth microprocesses of embodied cognition, the emotional and intellectual functions (van der Kolk, 2015). The lockdown of these functions blocks the ability to utilize them effectively, with the individual remaining in a perpetual physiological sensory state of edge-emotions until something changes, the threat recedes, or a sense of safety emerges from the context.

The Third Discipline, “Will,” as It Relates to the “Emotional and Intellectual Functions” of Embodied Cognition

Action works with the third discipline of Stoic philosophy, will, to use aspects of nature that are in one’s control, presumably emotion and intellect, to move toward a resolution of the threat. “Hegemonikon” (Aurelius, 2002, p. xxvii)—the command center of the soul—does have the capacity to govern one’s attitude about events and guidance toward a resolution. During disorienting dilemma, whether the threat involves a disappointment due to a misunderstanding, an inaccurate assumption, the loss of an item or person, or confusion about a belief, logos requires the individual to process the emotions that are entangled in the experience of loss. Processing emotion serves to resume intellectual functions, increasing the potential for an ultimate resolution.

However, a disorienting dilemma inciting a lockdown of embodied cognition can result in a loss of will. In a lockdown of embodied cognition, if action is not taken, whether voluntary or involuntary, specifically to allow for emotions to be regulated, no movement, no evolution, and no opportunity for growth can occur. In this case, although the individual survives, they may not thrive.

My Argument

The core premise of Stoic philosophy centers on the concept of “logos” (Aurelius, 2002, p. xx), the belief that nature or the cosmos is an organized universal force that follows a systematic (logical) process of adaptation and advancement. Although the terms *logical* and *rational* are often used interchangeably, the term logical in Stoic philosophy refers to *the process* of nature, rather than how nature thinks (Aurelius, 2002). According to Stoic thought, nature does not think; it already knows.

To wit, sensory and emotional experiences are processes of nature, and these processes are utilized for the adaptation and advancement of nature, specifically human beings. Therefore, I argue that references to sensory or emotional experiences as “negative,” inappropriate, or irrational (lacking reason, logic, or sound judgement) are, in fact, themselves irrational. I would also argue that the term rational is a misappropriation of the term logical when referencing processes of nature.

The functions of cognition, emotion, and intellect are embodied and work together in the processing of thought (Johnson, 2015; Wellsby & Pexman, 2014). If someone is having a sensory or emotional experience while thinking, it is reasonable to believe the sensory or emotional experience may influence their thinking. Prior to the early 2000s, understanding sensory and emotional experiences as an integral part of the cognitive process was not recognized, and knowing how to manage them was often unclear. Thus, as emotions were perceived a nuisance to rationale, they were identified as irrational, censured, and prohibited.

This need to process fear, anger, or sadness, or any of their sub- or supra-levels, is not an indication that sensory or emotional experiences are faulty, deficient, or inferior aspects of human nature. Sensory and emotional experiences are acts of nature, relay information and are

necessary to survival. I argue, sensory and emotional experiences expressed at heightened levels, made it uncomfortable for others to contend with, hence, I submit the term rational was inaccurately substituted with the term logical to refer to these experiences and were then identified as irrational.

The word rational describes human thinking and cannot describe nature's knowing. However, because humans think and use the term rational to describe their thinking, they may have personified (attributed a human-like characteristic to non-human tangible and non-tangible artifacts) nature and mistakenly began to apply rational to the "knowing" of nature. Nature does not think like humans do; nature knows. Therefore, nature cannot be rational or irrational, and if sensory and emotional experiences are natural acts of nature; they can only be considered logical.

During significant experiences, such as a disorienting dilemma, the felt sense/edge-emotions (fear, anger, flocking)/phantasia, can lock down the subsequent microprocesses of embodied cognition—emotion and intellect—prolonging the commotion of sensory activity (Barrett, 2017a). If action is taken (motivated by anger), processing and resolving the event can follow. If action is not taken, the settling of the "affect" (p. 6), or atmosphere of sensory energy, forms into an emotion. The third discipline of will may provide further support toward action to resolve the issue or event. However, will might choose to ignore (distracting from) the preconscious sensory experience rather than moving through them. This might allow some processing of emotion (such as sadness), in turn allowing the intellectual functions of embodied cognition to resume (van der Kolk, 2015). Thus, as Stoic philosophy holds, the logos (nature) requires the use of all the microprocesses of embodied cognition to effectively evolve knowledge and ensure human survival.

The Stoic school of thought did not disregard emotion as a function in the development of knowledge. However, utilizing the term *logos*, with its inference of the term logical, may have kept the focus on the intellectual function of cognition, holding the emotional function in the shadows. This view eventually came to support a societal view (Carter & Nicolaides, 2023), encouraging the repression of emotion.

Sensory and emotional experiences are essential to processing embodied cognition, especially during difficult experiences of loss, thwarting, disappointment, as well as in new learning. In these experiences, the use of all functions of cognition support the adaptation to change, the processing of old assumptions, the development of new frames of reference, a natural healing process, and, ultimately, transformative learning and the healthy development of whole-bodied human beings.

Closing Summary

This chapter began with a discussion about embodied cognition and its role in the first phase of the transformative learning process. The *preconscious* microprocesses of the felt sense (fear, anger, and flocking) and *conscious* microprocesses (emotion and intellect) were identified as constituents of embodied cognition and established as factors in locking down the transformative learning process. Next, a review of the trauma literature served as a lens for understanding the physiological processes within embodied cognition.

Thereafter, a clarification of the levels of consciousness; and a differentiation of the terms sense, emotion, and intellect, relating them to the use and misuse of the word “feeling” to represent experiences, were presented to maintain linguistic clarity. Then the problem, purpose, significance statements, and the research question, were presented to establish the focus of this study.

Lastly, a snapshot of the literature of Stoic philosophy (big 'S') was presented to consider a misunderstanding about a cultural belief restricting the expression of sensory and emotional experiences, and bring light to a strategy to reduce the lock down of embodied cognition inhibiting transformative learning and healthy growth in adult development.

CHAPTER 2

LITERATURE REVIEW

Jack Mezirow's (1978) theory of transformative learning, recognized and respected internationally across educational, psychological, and counseling disciplines for over four decades, contributes valuable insights into the understanding of adult cognition. The theory focuses on the importance of critical reflection in the process of perspective transformation as individuals make sense of their experiences. At times, however, this process is interrupted, stalling adult development and obstructing opportunities for a profound shift in understanding the world.

With the recent acknowledgement from the field of neuroscience, about emotion being an equally integrated function *with* the intellectual function in cognition, and the identification of the term of embodied cognition (Wellsby & Pexman, 2014), **finding a gap in the literature regarding the role of emotion in cognition is of special interest**. Information revealed regarding the purpose of emotion in cognition can bring insight into the emotional dimension of transformative learning and how emotions function to facilitate or impede cognition.

Defining embodied cognition in transformative learning as a concept has been difficult, as there are several theories that have come forward during the past decade and have influenced the understanding of this concept (Johnson, 2015; Wellsby & Pexman, 2014). Primarily, theories of embodied cognition "tend to assume that our actions and bodily experiences are crucial to our cognitive processing" (p. 1). Other theories span the spectrum from disembodied to embodied

cognition, yet argue about whether knowledge and language are developed because of sensory processes, or believe sensorimotor experiences are used to access knowledge and language.

Additionally, the term embodied is confusing, as it can be understood as an abstract representation of intermingling qualities with no indication of what those qualities are. In the term embodied cognition, emotion is the undisclosed embodied quality, while cognition leaves an impression of intermingling intellectual functions (not the intermingling of emotion with intellect). For the purpose of this review, I will use the term embodied cognition to represent the equally integrated emotional and intellectual functions of cognition. This conceptualization is at the heart of this inquiry, to find solutions to eliminate barriers to embodied cognition and to promote movement to critical reflection and successful transformative learning experiences.

By examining existing research, a final aim for this review is to seek empirical and theoretical support for the inclusion of a grief process as a construct of the emotional dimension of transformative learning theory. This endeavor seeks to illuminate the relationship and connection between Mezirow's (1978) transformative learning theory and Kübler-Ross' theory of grief to identify an emotional dimension in the first phase of Mezirow's (1978) theory for processing the losses, thwartings, and disappointments that come from the experience of a disorienting dilemma.

Chapter Summary

This chapter begins with the research design and criteria for selection of articles including search words, databases, span of dates for the articles, and number of articles selected for review. This information is followed by a review of Mezirow's (1978) transformative learning theory and Mälkki's (2011) enhancement of Mezirow's theory, theorizing the nature of reflection. These theories are followed by a visual conceptualization of the process of the

transformation of a frame of reference, highlighting a proposed emotional dimension of the theory. The conceptualization is followed by Kübler-Ross's (1970) model of grief to support the idea of a grief process as the central function of the emotional dimension in the first phase of the transformative learning process.

Next, an introduction to the initial empirical studies selected for this literature review is offered, along with Taylor's 1997, 2000, and 2007 reviews, as they contain critical information from almost 30 years of research. The introduction is followed by a synthesis of these articles with themes identified, and an analysis of the information gathered concludes with the gap identified for further research.

Last, Table 4 represents a synthesis of the information gathered during the literature review, while Tables 5 through 13 represent the empirical information gathered from the individual articles including Taylor's reviews.

Methodology

Design of the Literature Review

To identify potential gaps regarding the transformative learning process, this literature review examined empirical studies (Tables 4-13), seeking additional research and understandings regarding transitions through phases of transformative learning. Specific information gleaned from the research involved the **transition from phase one through phase three** of the transformative learning process; **the process of embodied cognition** in a disorienting dilemma; **the role of emotions—specifically those involving grief**; and **the need for connection with others** to support transition through the transformative learning process. As phase three, critical reflection, is considered integral to the transformative learning process (Baumgartner, 2002;

King, 2003; Mezirow, 1990, 1991, 2000; Taylor, 2007), articles were reviewed to find additional support regarding the effects of embodied cognition on critical reflection.

Search words included “empirical studies,” “transformative learning,” “embodied cognition,” “critical reflection,” “reflection,” “emotion,” “grief,” “connection,” “social support,” “trauma,” and “vulnerable populations.” For the literature search, a number of databases were used, including Google Scholar, AgeLine, Alt HealthWatch, APA PsycArticles, APA PsycInfo, Child Development & Adolescent Studies, Criminal Justice Abstracts, and Education Research Complete. Additionally, ERIC, Family Studies Abstracts, Philosopher's Index, Psychology and Behavioral Sciences Collection, Religion and Philosophy Collection, Social Work Abstracts, SocINDEX with Full Text, Violence & Abuse Abstracts, and Web News were all included in the search, specifically for articles dated from 2009 to 2020. Some articles dated prior to 2009 located prior to this review were included.

The search identified 89 articles that were selected based on the previously discussed search process. Among the total 89 articles identified using a second keyword search, 40 articles were excluded that were not empirical studies or peer reviewed. For synthesizing and analyzing the collected studies, the remaining 49 studies were evaluated with Torraco’s (2005) integrative literature method, including Taylor’s (1997, 2000, & 2007) literature reviews specific to Mezirow’s (1978) theory of transformative learning theory.

Theoretical Frameworks

Theoretical frameworks provide a conceptual structure for situating and grounding new research in existing theories and knowledge. They offer a structure for the collection, interpretation, and analysis of data, ensuring a sound methodology and alignment with the

broader body of knowledge. Additionally, these frameworks provide a lens and structure for making sense of, and drawing conclusions about the information gathered during the research.

This chapter **outlines the selection of foundational theories** undergirding this research to help organize and structure existing knowledge and guide the research process. These theories provide a conceptual map of the background and context of the research and influence the identification of key concepts, relationships and gaps in the literature. Moreover, for this literature review, these theories will help to develop a deeper understanding of the transitions through the phases of transformative learning, to identify barriers to the transformative learning process and the potential for an emotional dimension.

Table 3. *Theoretical Frameworks of the Literature Review*

Alignment of Theoretical Frameworks with the Concept of Embodied Cognition					
Sensory & Emotional Functions			Intellectual Functions		
Preconscious			Conscious		
Embodied Cognition (Johnson, 2015; Wellsby & Pexman 2015) Carter, 2023					
Felt Sense (Gendlin, 1991) Fear	Edge-Emotions (Mälkki, 2011) Anger	Flocking (Perry, 2018) Seeking	Emotional Comfort Zone (Mälkki, 2011)	Resumption of Full Intellectual Functions (Van der Kolk, 2015)	
Transformative Learning (Mezirow, 1978)					
Phase 1 Disorienting Dilemma			Phase 2 Self-Examination Sensemaking	Phase 3 Critical Reflection Meaning Making	
Theorizing the Nature of Reflection Transformative Learning Theory (Mälkki, 2011)					
Edge-Emotions Fear & Anger (Mälkki, 2011) Front Door			Comfort Zone (Mälkki, 2011) Back Door	Phase 2 Self-Examination Sensemaking	Phase 3 Critical Reflection Meaning Making
Grief Process (Kubler-Ross 1970; Carter, 2022)					
Denial	Anger	Bargaining	Sadness	Acceptance	Resumption of full Intellectual Functions

Central to this literature review are Mezirow's (1978) theory of transformative learning, Mälkki's (2011) theorization of the nature of reflection, and Kübler-Ross' (1970) theory of grief. Additional theoretical frameworks supporting this research include Merleau-Ponty's (2013) *Philosophy of Phenomenology*, Gendlin's (1991) *Theory of Understanding*, and Barrett's (2017) theory of the construction of emotion. These latter theories will be presented in chapter three as they primarily pertain to the research for the dissertation rather than the literature review.

Transformative Learning—Jack Mezirow (1978), Foundational Theory

Mezirow's (1978) theory of transformative learning is the foundational theory of adult cognitive development used for this research. The following discussion includes a brief coverage of the original theory's conceptual influences, followed by a summary of the ongoing development and criticisms of the theory. Following this is coverage of Mälkki's (2011) enhancement of the emotional dimension of transformative learning theory with the identification of two concepts—edge-emotion and comfort zone—defining the front and back doors of Phase 1 of the transformative learning process, the disorienting dilemma. Supporting these theoretical frameworks a conceptual diagram of the transformative learning process at work in the transformation of a frame of reference is offered.

Jack Mezirow (1923–2014), professor emeritus at Teacher's College, became interested in factors facilitating or impeding college re-entry. Focusing on 12 re-entry programs across the United States and drawing on Dewey's (1929) progressive education theory, Freire's (1970) critical pedagogical philosophy, and Habermas' (1989) communicative action theory (Kitchenham, 2008), Mezirow began a study that ultimately sparked the introduction and development of his transformative learning theory.

Mezirow's (1978) foundational theory of transformative learning, holds the view that the way learners "interpret and reinterpret their sense experience is, central to making meaning and, hence, learning" (Mezirow, 1991). This theory identifies 10 phases to explain the process of adult learning and the construction of new frames of reference. These phases include, a disorienting dilemma, self-examination with emotions, critical reflection, relating discontent to others, exploring options for new behavior, planning a course of action, gaining knowledge to implement plans, experimenting with new roles, building competence and self-confidence in new roles and relationships, and finally reintegration (Mezirow, 2000b).

Mezirow's work theorized how adults learn developmentally and he sought to identify a "philosophy of adult education" (Taylor, 1997, p. 50) that would serve as a multidisciplinary framework and effective pedagogy in adult learning. At the core of his theory, Mezirow (1978) believed a "fundamental revision" (Mezirow, 1991, p. 107) of adult education required an understanding of the transformative process of a frame of reference or meaning perspective. Furthermore, he sought to "identify its phases and the factors precipitating, facilitating, inhibiting, and reinforcing movement" (p. 108) through this transformative process and supporting continued success in the "lifeworld" (Mezirow, 1991, p. 161).

Disorienting dilemmas are cognitive experiences that do not fit into an individual's current understanding or beliefs about the world, and begin with an "emotionally felt difficulty" (Elkajer, 2009. p. 79). The word difficulty implies something is different, something is not right, "I do not know this experience." According to the theory, when faced with a disorienting dilemma, individuals need to process the latest information and reconsider their beliefs, eventually fitting the new experience into the rest of their worldview.

Ideally, the processing of information happens through critical reflection and is best developed by dialoguing with other people and trying on other's perspectives. There is not much discussion regarding the emotional process, and although Mezirow eventually included more about the concept of emotion and made some improvements to the second phase of the theory, there still seems to be some confusion about what actually happens in the second phase (Baumgartner, 2012).

The focus of this review is to identify a gap in the literature regarding the first three phases of the transformative learning process. Not all phases of the theory are necessarily experienced, nor are they expected to occur in a linear fashion (Kitchenham, 2008); however, for the purposes of this research, the assumptions regarding the first three phases—disorienting dilemma, self-examination, and critical reflection—are (a) they are all experienced, (b) they occur in order and (c) they must be successfully negotiated to eliminate barriers to the transformative learning process. Additionally, understanding how emotions effect the transformative learning process would create an openness to self-examination and critical reflection and an understanding of how to best assist individuals through the transformative learning process successfully.

Major Contributors to the Development of Mezirow's Transformative Learning Theory

Before developing his theory, Mezirow, concerned with social justice, became involved in critiquing the government's use of quantitatively derived ideological assumptions to determine educational and social policy (Fleming et al., 2019). Supporting Marxist views, Mezirow agreed with American philosopher, psychologist, educator, and social reformer John Dewey, who held that education was integral to the development of individuals who would eventually and effectively contribute to a "democratic society" (Rodgers, 2002, p. 845). These views became

intertwined with those of Paulo Freire (1970), a Brazilian philosopher and educator, who felt strongly that education should be a “democratic” relationship between student and teacher, with the initial goal of “empowering their politics” (Kitchenham, 2008, p. 107) through critical pedagogy and the eventual goal of dismantling oppression.

Rather than maintaining the traditional view of education, that of passively accumulating spoon-fed facts, Dewey’s fundamental and constructivist view of education supported students learning experientially, or rather, interacting “hands on” with the environment and building upon previous iterations of knowledge with new understanding. Similarly, Freire’s perspective called for an understanding of critical pedagogy, requiring a teacher to engage students in a dialogue of perspectives rather than simply dole out information to students to memorize (Kitchenham, 2008).

Dewey’s concept of thinking differed significantly from reflection and involved “a stream of *consciousness*, invent[ion], or the development of a belief” (Rodgers, 2002, p. 849), requiring an application of value. Reflection comprised “four distinct criteria” (Rodgers, 2002, p. 844), defining the process of learning as constructively and critically acquiring knowledge while interacting with the environment, and resulting in the advancement of self, others, and a democratic society. By maintaining a critical awareness of and taking action against the contradictions of societal dogma, Freire’s (1970) concept of “conscientization” moralized the process of thinking. Mezirow would eventually employ Dewey’s concept of reflection and Freire’s conscientization, or critical thinking, to develop the notion of critical reflection. This concept became the core tenet and third essential phase of his transformative learning process (Boyd & Myers, 1988; Dirkx, 2000; Kegan, 1994; Kegan & Lahey, 2009; Mezirow, 1999; Rodgers, 2002; Taylor, 1997, 2007).

Conscientization involves three levels of capacity to “actualize *conscious* growth” (Kitchenham, 2008, p. 108), beginning with the lowest level—intransitive thought—the inability to critically perceive social issues, followed by the middle level—semitransitive thought—the ability to see the social issues though still unable to determine causality, and then the top level—critical transitivity—the ability to realize and understand causality of issues and eventually taking action to denounce it.

Habermas, a German philosopher and sociologist, left the Frankfurt Institute of Social Research after deciding to reject the ideas of Marxism (Kitchenham, 2008). He returned later with a new critical theory of intersubjectivity, requiring individuals to participate in a higher level of interaction to foster a more democratic society. This theory identified three domains of, or approaches to, learning: (a) technical—rote learning specific to a task; (b) practical—social learning within one’s culture; and (c) emancipatory—introspective and self-reflective learning capable of producing transformation (Kitchenham, 2008).

The latter of these three domains, in the transformative learning experience, involves not only a rational or cognitive transformation of old perceptions and assumptions, but also affective changes (Maiese, 2017) that impact the relationship and connection to the “cultural, social, and personality dimensions” of what Habermas called the lifeworld (Fleming et al, 2019). He felt strongly that an “ideal” (Mezirow, 1991, p. 7) environment for adult learning would involve “free, full participation in reflective discourse” (p. 7). Mezirow identified this social collaboration (Kitchenham, 2008), or communicative action, as a requirement for adhering a frame of reference to an individual’s “living reality” and derived the term *critical discourse* to represent the fourth phase in the development of transformative learning (Kitchenham, 2008).

Though several developmental psychologists have contributed to Mezirow's conception of perspective transformation, Gisela Labouvie-Vief's idea (proposed in 1984) about adult development involving more complex capabilities for constructing successful adaptations through action has been identified as taking the "central role of perspective transformation in adult development" (Mezirow, 1991, p. 155).

Criticisms of Transformative Learning Theory

Contributing to the understanding of transformative learning theory over the past 40 years, E. W. Taylor (1997, as cited in Mezirow, 2000a; 2007) heads the list of researchers who amassed a significant amount of information regarding the development, refinement, and critiques of the theory. Taylor fervently reviewed the literature related to Mezirow's theory, beginning in 1997, when he examined more than 40 mostly qualitative and phenomenological studies investigating Mezirow's theory conducted over the previous 17 years (followed by updates in 2000 and 2007), cataloging criticisms, limitations, and the need for further research.

Taylor's (1997) review revealed a primary concern in the literature about the focus on the rational functions of learning, without regard to emotional functions. Other criticisms included theoretical considerations about context, teaching in diverse cultural backgrounds, and the use of fostering learning outside as well as in the classroom. Additional concerns regarded understanding, the need for support in the process of transformative learning, how to manage "threatening, emotionally charged, and extremely difficult" reactions (Taylor, 1997, p. 48), the nature of critical reflection, individual change versus social action, the need for greater clarity around adult development, and the realization of a universal model of adult learning (Kitchenham, 2008).

Other concerns related to the research in Taylor's (1997) review included understanding "microscopic orientation on particular components, known to be essential to transformative learning" (Taylor, as cited in Mezirow, 2000a, p. 318), the development of an in-depth component analysis of "specific feelings," such as anger, happiness, shame, in "the management of emotions during transformative learning" (p. 318). Last of all he discussed concerns about the identification of barriers to critical reflection (Mälkki, 2011), enhancing knowledge about specific microprocesses (Mälkki & Green, 2014) or phasic transitions of Mezirow's theory (Kessler et al., 2009), and addressing "why some disorienting dilemmas lead to perspective transformation and others do not" (Taylor, 1997).

Although Taylor (1997) made note of the salient results of the growth of transformative learning theory, he acknowledged that "only the surface ha[d] been scratched" (p. 51). Regarding other ways of knowing, including, "affective learning, unconscious learning, relationships, and collective unconscious" (p. 52), there was still not enough attention paid to these areas. He also called for more research on transformative learning using methods outside the phenomenological arena and urged the publication of dissertations on the topic. Taylor's updated review in 2000 organized concerns around "four general foci" (p. 316): (a) theoretical comparisons, (b) in-depth component analysis, (c) strategies for fostering transformative learning, and (d) the use of alternative methodological designs.

When faced with a disorienting dilemma, individuals process new information to reconsider their beliefs, and eventually fit their new understanding into the rest of their worldview, creating a new meaning perspective or frame of reference (Mezirow, 1978). Fitting this new experience into the rest of their worldview happens primarily through self-reflection and critical reflection, the next two phases of the learning process. Successful negotiation of the

sensory and emotional experiences of Phase 1, however, is a necessary primer for movement to Phase 2.

Transformative Learning—Theorizing the Nature of Reflection—Mälkki (2011)

Mälkki's (2011) research focused on developing a theoretical model of the cognitive, emotional, and social aspects of transformative learning. Specifically, she was interested in enhancing the emotional dimension of Mezirow's (1978) theory and identifying challenges and obstacles to Phase 3 of the learning process, critical reflection. Mälkki undergirded her work with Damasio's (1999) explanation of emotion and *consciousness* to understand the *nature* of critical reflection as a biological function for maintaining life and expanding meaning perspectives.

Mälkki (2011) began her explanation of the nature of reflection with the first phase of the transformative learning process, the disorienting dilemma. A disorienting dilemma occurs when an encounter with new information brings into question one's personal values, beliefs, or assumptions. This experience is similar to becoming aware of a perceived threat in the case of trauma. When an individual perceives a threat, Damasio (1999) stated, they are first made aware of the threat by an uncomfortable *preconscious* sensory experience in the body, or felt sense, recognized as *fear*. This sensation of threat can occur due to a minor event (such as misplacing keys or approaching a red light on the way to work when already late), a major event (such as a car accident or loss of a loved one), or in transformative learning (with the realization of an inaccurate assumption).

Mälkki (2011) developed two concepts, edge-emotion and comfort zone, to define the beginning and end microprocesses of the "emotional dimension" (p. 29) of Phase 1, in the development of a meaning perspective or frame of reference. Edge-emotion is a *preconscious* co-

occurring uncomfortable physiological sense (resembling fear) initiated by “an intensely threatening experience” (Mezirow, 2000b, p. 6). The internal (bodily) sensory experience intersects with external (worldly) stimuli to examine historical autobiographical data (Barrett, 2017a), employing images and/or imagination in *consciousness* (Merleau-Ponty 2014; Aurelius, 2002), first to warn and then to help identify an action in response to the threat (van der Kolk, 2015). During disorientation, this *preconscious* sensory experience is preceded by a physiological lockdown of embodied cognition (disabling *conscious* emotional and intellectual functions of cognition) while maintaining a continuous physiological state of arousal. During the lockdown of cognitive functions, there is a lack of verbal ability, no conceptualization of time, no memory function, or ability to project imaginarily into the future to consider possibilities for resolution of the threat. Without any of these functions, meaning making cannot occur. Additionally, if edge-emotion continues to warn of threat, the comfort zone becomes a haven for avoidance of ensuing emotional energy, as the primitive reptilian brain of the limbic system hijacks all functions for survival by moving to a freeze response (van der Kolk, 2015).

Damasio’s (1999) biology of emotion requires a processing of emotion for the resumption of meaning making and critical reflection. This emotional processing occurs once edge-emotion is negotiated, and subsequent emotion is processed before moving to the comfort zone. To process edge-emotion, one must move through the felt-sense experience by what Mälkki (2019) describes as embracing or “lingering on” (p. 69). This lingering on is also necessary for the emotional process that follows, prior to the phases of self-examination or critical reflection. Understanding this nature, aids in managing barriers, unlocking embodied cognition, and inevitably increasing the potential for personal development, empowerment, and emancipation.

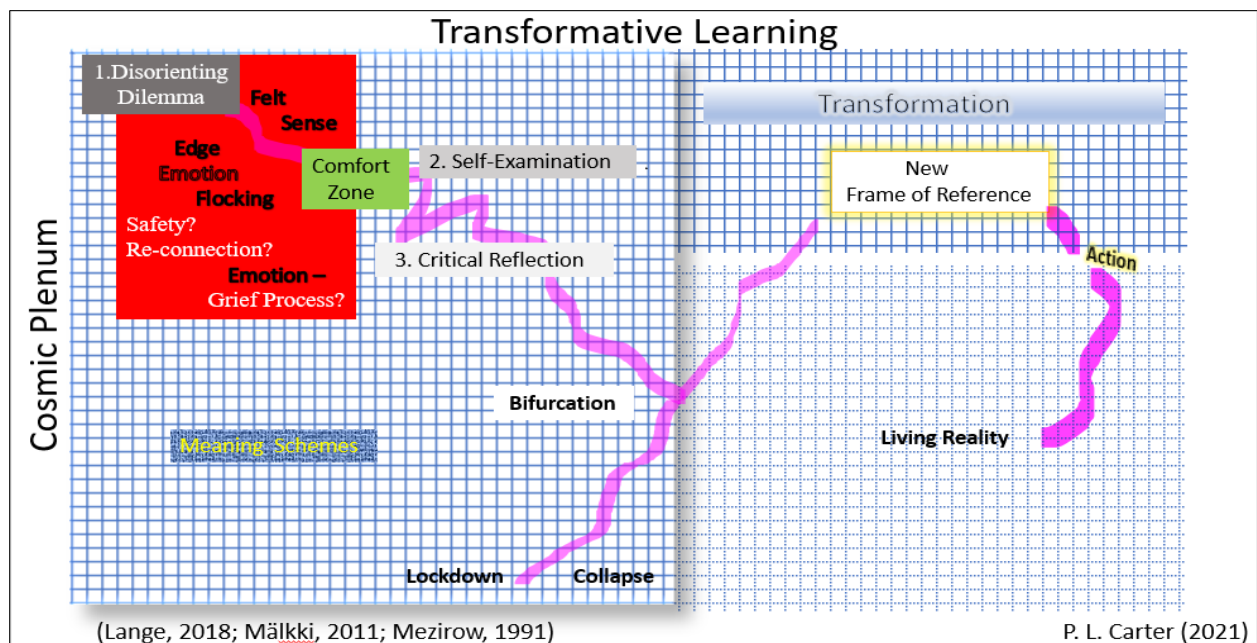


Figure 3. *Conceptual Model of a Frame of Reference*

Conceptual Framework of Mezirow's (1978) and Mälkki's (2011) Frame of Reference

Figure 3 depicts a conceptualization of the transformation of a meaning perspective or frame of reference—integrated with concepts from Mezirow's (1978) transformative learning theory, Mälkki's (2011) enhancement of the emotional dimension of transformative learning, and Lange's (2018) thoughts on quantum physics and transforming transformative learning—to bring an updated and more concise understanding of the microprocesses (identified in and near the red square in the figure) involved in the first phase of the transformative learning process.

This figure represents an individual's frames of reference, with an implied connection to the cosmic plenum, the source of all knowledge (Lange, 2018). Lange's conceptualization of this cosmic plenum reflects a revisionist view of transformative learning, integrating concepts from quantum physics, living systems theory (relational ontology), and Indigenous philosophies. Dirkx (2008) explained this base of all knowledge as a somatic awareness of oneself and one's

relationship to the world. Dewey (1929) referred to this as the Being (a way of knowing) antecedent to knowledge. Merriam (2017) described it as the source of "embodied or somatic knowing [involving] our senses" (p. 30), relating to times when we unexpectedly encounter a perceived threat.

In Figure 3, the dense grid on the left half, set upon the cosmic plenum, represents previously constructed frames of reference. Notice they are smaller and more constricted than the right half. The red square represents the focus of this study, phase one, the disorienting dilemma and what might be considered the emotional dimension of the learning process. At the upper left corner, the beginning of the pink jagged line represents an encounter with a disorienting dilemma or "macroshift" (Lange, 2018, p. 286) triggering a "force" (Mälkki, 2019) that will motivate a line of action for survival or learning. The jagged line represent the vacillation as it occurs throughout the transformative learning process. The depth of the disorienting dilemma determines the amount of force necessary to promote the line of action that will activate "perception, interpretation, learning, problems solving, remembering, and reflection" (Mezirow, 1991, p. 36) for the development of a new frame of reference or to a incite a lockdown of embodied cognition.

Phase 1: The Disorienting Dilemma—Felt Sense. Encountering a disorienting dilemma initiates a visceral physiological experience of a felt sense (Gendlin, 1991). This sensation occurs due to a conflict between the medial prefrontal cortex (MPFC) and the amygdala in the limbic system (primitive brain), causing a "visceral experience in [the] gut, heart, and lungs" (van der Kolk, 2015, p. 65) by way of the vagus nerve, bringing awareness to a potential threat. As a *natural* resource, this process is constantly at the ready to signal the individual of danger or to inform of new learning opportunities.

According to Gendlin (1991), the felt sense experience occurs just prior to the emotional experience and is further defined as a preconscious sensorily felt physical response to sensory information coming from the internal or external environment, creating an awareness of a threat and sounding an alarm to motivate action (Gendlin, 1991). This reaction is often identified as shock, surprise, or denial and ignites a force (Lange, 2018), a sensory experience requiring explanation, as it suggests something unknown or unfamiliar. If strong enough, this simultaneous experience of a felt sense and the inquiry "What is this?" can trigger a lockdown of embodied cognition (van der Kolk, 2015). This sensory, emotional, and intellectual lockdown makes it difficult to orient to or make sense of the disorienting dilemma.

Phase 2: Self-Examination—Sensemaking/Flocking. The disruption of embodied cognition by the disorienting dilemma or felt sense, impacts sensemaking (Kotter, 1995; Louis, 1980; Mälkki, 2011; van der Kolk, 2015). Sensemaking is the embodied integration and “adaptation to new information” (Filstad, 2014, p. 6) followed by the eventual process of meaning making in phase three (Mezirow, 1978, 1991). Sensemaking requires processing and moving through the internal sensory and emotional experiences with stimuli received from the external world (Maiese, 2017). This processing signifies the embodied affectivity involved in the construction of understanding.

"Flocking" (Perry et al., 2018, p. 85) represents a need to orient and is defined as the precognitive, "tuned-in" response following the felt sense, with continual neurobiological monitoring of others and the context. This reaction bears resemblance to a state of heightened vigilance. The attempt to orient involves looking for cues from the environment or others to make sense of the experience or acquire a sense of safety. Embracing this response allows for

movement through edge-emotion, unlocking disembodied cognition and allowing advancement through sensemaking in self-examination and meaning making in critical reflection.

Phase 3: Critical Reflection—Meaning Making. Meaning making, thinking, pondering, and wondering represent the struggle for coherence and understanding of new information on a personal level (Mezirow, 1978). Advancement through sensemaking in self-examination supports successful meaning making essential in phase three—critical reflection. Baumgartner (2002) asserts, “critical reflection is the lynchpin of transformative learning,” a notion supporting researchers’ assertions about the importance of critical reflection to the transformative learning process (Boyd & Myers, 1988; Dirkx, 2000; Mezirow, 1999; Rodgers, 2002; Taylor, 1997, 2000, 2007).

If open to the experience, an awareness of inaccurate meaning schemes drives the search for and connection to the cosmic plenum, aiding in a resulting expansion of awareness, generating new meaning schemes. New meaning schemes increase the development of new frames of reference. Depending on the strength of the connection to the cosmic plenum and the increasing depth of new understanding, an eventual "tipping point" and "bifurcation" (Lange, 2018, p. 286) will project the individual into a new and advanced integrated frame of reference (represented by the sparse grid on the right in Figure 3) or to a complete "collapse" (p. 286) as embodied cognition remains in lockdown.

The vertical shadow between the grid sections of Figure 3 represents the development from the prior position of knowledge on the left with the new position of knowledge on the right, closer to the cosmic plenum. The expanded frames (with fringe on the perimeter of the grid) on the right indicate an enhancement of access to the cosmic plenum, supporting further intellectual

and personal development. Thus, the development of a new frame of reference incorporating more of the cosmic plenum strengthens the connection to self and the source of all knowledge.

Finally, for transformation to occur, a new frame of reference must be acted upon (Mezirow, 1991) to sustain its folding into the larger living reality (indicated by the space between "transformation" and "living reality" in Figure 3). This action strengthens the connection of the transformed frame of reference and adheres it to the living reality of self. The development of new personal paradigms and a more coherent living reality through this exquisite innate natural resource of a transformed frame of reference cultivates one's being as an "individual-in-relations" (Lange, 2018, p. 293) or one's sense of spiritual connection to all living things.

Make the most of your regrets; never smother your sorrow, but tend and cherish it till it comes to have a separate and integral interest. To regret deeply is to live afresh.

—Henry David Thoreau

Theory of Grief—Kübler-Ross (1970)

Even though many consider learning an expansion of knowledge, the processing of new information often involves a sense of loss, thwarting, or disappointment, as dependence on an old perspective or frame of reference becomes unsustainable (Boyd & Myers, 1988; Mezirow, 1978). This loss requires a full processing of grief to promote healing and to unlock the functions of embodied cognition necessary for self-examination in Phases 2 and 3. Kübler-Ross's (1970) theory of grief is included in the list of theoretical frameworks, as having an established theory regarding this topic helps provide a framework for understanding the process of transformative learning in the context of loss.

Kübler-Ross's Stages of Grief

Kübler-Ross's (1970) model of the grief process identifies five stages—denial (intellectual), anger (sensory), bargaining (intellectual), depression (emotional), and acceptance (intellectual) as one moves through the “disruption of order” (Boyd & Myers, 1988, p. 277):

- Stage 1: Denial—*an instinctive sensory experience*, generating an inability to recognize, with thought, what is happening, because the alarm (felt sense) has inhibited or locked down embodied cognition (both emotional and intellectual functions) and left the individual in a state of unknowing. The *preconscious* sensory experience of edge-emotions (fear, anxiety, surprise, or shock) *are* the initiating felt sense experience in a disorienting dilemma.
- Stage 2: Anger—*a sensory experience* instigated by the felt sense and fear; acts as the energy source or fuel for (Mälkki, 2019) the motivation to act.
- Stage 3: Bargaining—*an intellectual pursuit*, an oscillating dismissal and negotiation of thoughts or beliefs that might affirm the reality of the experience.
- Stage 4: Depression (sadness)—*an emotional experience as conscious* acknowledgement of reality (no longer in denial) regarding the disorientation is confirmed. With acknowledgement of a threat or loss, sensory experiences subside, and emotion is easily processed; however, when the sensory and emotional experiences of several minor losses or a major disorientation are not acknowledged, embraced, and expressed effectively, the energy of sadness can develop into depression, and last for years.
- Stage 5: Acceptance—this last stage, an intellectual pursuit, represents the completely processed *sensory, emotional, and intellectual* experiences of embodied cognition

necessary to recognize the reality of an experience of loss, disappointment, or thwarting.

This model supports the cautious processing of the vacillating sensory/emotional experiences of anger and depression, as movement from denial to the final stage of acceptance progresses.

While some of the stages of this grief process, in less disorienting situations, may occur unconsciously or go unnoticed, I submit that the process requires movement through all five stages, specifically in more serious disorientations. These sensory, emotional, and intellectual experiences may be uncomfortable and disruptive, however, experiencing, expressing, and moving through them, rather than avoiding them, supports the natural resource for healing and eventual transformative learning (Herman, 2015; Kübler-Ross, 1970; Mezirow, 1991; Perry et al., 2018; van der Kolk, 2015).

Empirical Studies Selected for the Literature Review

This review includes four qualitative, one mixed method, and one grounded theory study as well as Taylor's 1997, 2000, and 2007 literature reviews (Tables 5 – 13). The foci of selected studies, based in Mezirow's foundational theory of transformative learning, explored the process of critical reflection (Brookfield, 1994); learning over time with HIV/AIDS (Baumgartner, 2002); learners' needs after 9-11 in times of emotional trauma (King, 2003); what educators ask of students regarding action, when teaching transformation (Berger, 2004); if transformative learning occurs after a heart attack (Kessler et al., 2009); and the dynamics of the grieving process and transformation of the bereaved after a suicide (Sands & Tennant, 2010). Taylor's reviews covered empirical studies conducted in previous years, bringing additional attention to Mezirow's (1978) transformative learning theory.

Brookfield (1994) utilized a phenomenographic approach with 337 educators selected from diverse ethnic and work backgrounds, investigating their different views on critical reflection via journals, personal conversations, classroom discussion, and structured autobiographical analysis. Baumgartner (2002) interviewed 11 of the 18 original participants from a previous study conducted in 1995, analyzing data sets using psychological, biographical, and linguistic narrative analytical approaches. King (2003) surveyed 19 adult education graduate students in New York City, in small group discussions, using the Learning Activities Survey developed by King, revised to include transformative learning and grief stages, with a follow-up survey.

Berger (2004) reread 20 interviews, from previous qualitative studies, taken from individuals, ages 25-69, using the Subject-Objective interview, coding their experiences at the edge of knowing to understand their meaning making system and alignment with Kegan's (1982) constructive developmental theory. Kessler et al. (2009) conducted audio taped semi-structured interviews with 12 local participants who experienced a stroke, 2 women and 10 men, ages 44 to 74, to inquire about their transformative learning process. Sands & Tennant (2010) invited 16 individuals, 19 years of age and older, who suffered the loss of a significant person to suicide, to do a workshop participating in dyads, dialogues, group work, journaling, grief rituals and artwork focused on meaning making.

Taylor's 1997, 2000, and 2007 reviews included solely empirical studies of Mezirow's (1978) transformative learning theory. The purpose of these reviews was, consecutively, to critically review studies done over the preceding 17 years, to discuss current research and explore unanswered questions, and to critically analyze the complete collection of empirical literature accumulated to date.

Synthesis of Findings from Empirical Studies and Taylor's Reviews

Five significant themes emerged from Brookfield's (1994) study of educator's experiences with reflection over an 11-year period. Impostorship—a sense of not having the right or talent to critically reflect and a belief that only scholarly students deserve to do so; Cultural suicide—a sense that if participation in critical reflection occurs, it might invoke the censure and loss of community; Lost innocence—a sadness at the realization of loss of possible universal certainty; Roadrunning—a halting, inability to progress to critical reflection due to barriers; and Community—realizing the need for peer support groups to engage in the critical reflection process safely and make meaning effectively.

Four major findings from Baumgartner's (2002) study of participants with HIV/AIDS emerged, including understanding the nature of learning, the stability of meaning scheme changes, the strengthening of empathy, and the importance of social support. By integrating transformative learning and grief theories, participants were able to effectively move through their experiences of grief after 9-11 (King, 2003; Taylor, 2000; 2007). Small group discussions enabled support, validation, and the ability to understand and relate to another's experience. Participants allowed to sit in the edge of their understanding, increased awareness of the transformative learning that occurs within the experience of grief. (Berger, 2004; Taylor, 1997).

Meaning perspective transformation was observed to occur with four factors contributing to transformation in Kessler et al.'s, 2009 study. These four factors involve becoming aware of—a sense of vulnerability (triggers); various forms of support helped move to transformative learning; receiving information regarding stroke recovery for self and from others was beneficial to processing knowledge; and becoming involved in seeking knowledge and action aided recovery.

Sands & Tennant's, 2010 utilized a grief process in concert with Mezirow's transformative learning theory to advance the understanding of and research on transformative learning. This study identified limitations of Mezirow's theory including—the need for more support promoting movement through an emotional dimension via non-verbal methods; the need for more coverage on supportive relationships for creating change, and the need for more coverage regarding differing self-conceptions and their effect on meaning making and developmental growth.

Themes

Expression of Emotion Is Necessary for Transition

The need to express emotion is supported throughout the articles and considered integral to the transformative learning process and is reported sporadically. King (2003) stated that sixty-seven percent of the participants who used the transformative learning process and grief theories together to process their 9-11 experience, stated the two theories were beneficial and allowed them to move beyond their anger (p. 21). One participant stated, “the framework helps me understand my feelings” (p. 21).

In this study, 72 percent reported anger at two and a half months after 9-11 and 67 percent reported still having anger 10 months later. This information is noteworthy as it shows that even seven and a half months later, at 10 months after 9-11, only 5 percent were feeling less anger than at two and a half months. More important, 67 percent were still experiencing anger 10 months after 9-11.

As anger is stage two of the grief process, this indicates a majority of these participants were still working on initial stages of grief (Kübler-Ross, 1970) at least 10 months after their experience with disorientation. Understandably, the grief process takes a considerable time to

process and certainly ten months is not enough time to process an event like 9-11, however, it does imply the prospect of an unfinished/avoided grief process perhaps “stalling” the transformative learning process.

In reference to post-stroke studies, Kessler et al. (2009) stated,

Included in the results of most of these studies is movement from shock [denial], fear and hope [bargaining] in the acute stage, to sadness [depression] at losses in functional abilities, to acceptance [acceptance] of the remaining disability and reengagement in life with changed abilities. (p. 1057)

Kessler, et al (2009) added, "emotional engagement then lies at the heart of transformative learning" (p.116), supporting the importance of expressing emotion as essential to the learning process. Identifying and acknowledging all sensory and emotional experiences in grief is important to processing a disorienting dilemma. Anger is not mentioned in the above quote. Anger is a natural sensory resource supporting action to resolve a threat. Without action, stagnation occurs.

This is the reason for using an established framework for understanding a process of grief in a disorienting dilemma or in transformative learning as a whole. Kubler-Ross' theory of grief (stages bracketed in the quote) does parallel his description of the “movement” through shock (stage 1 – denial), sadness (stage 4 – depression), and acceptance (stage 5 – acceptance). Experiencing a life change due to a stroke justifies a feeling or sub- or supra-level of anger, for a period of time, as one is adapting to this change.

Perhaps no one identified the experience using the term anger. What if the terms irritation, frustration, annoyance, disappointment were used as they are sub-levels of anger? These levels of anger still needs to be expressed. Moreover, supra-levels of anger, the more

intense levels of anger, such as pissed off, livid, and furious, all need to be expressed as well, as they might engender inappropriate or dangerous behavior. Perhaps the participants in Kessler's study were unconsciously repressing their anger due to a cultural indoctrination regarding the expression of certain types of emotion, or because they did not want to look weak due to a belief in the stoic value of enduring pain without the expression of emotion.

Whatever the reason, having and understanding a framework about grief as a part of the emotional dimension supports transformative learning by identifying barriers contributing to the experience of feeling "stuck" in the disorientating dilemma. Neuman's (1996) finding, 'acquiring the ability to recognize, acknowledge and process feelings and emotions [are] integral aspects of learning from experience' (p. 460) and supports the idea of a grief framework fully.

In Taylor's (2000) review, he found "affective learning plays a primary role in the fostering of critical reflection" (p. 305) and reports the findings from Morgan (1987), Coffman (1989), and Sveinunggaard (1993) stating emotions need to be processed before critical reflection becomes effective. Taylor also discussed Gehrels (1984) finding that feelings are a 'trigger for reflection' (p. 303) and Neuman's (1996) findings stating the expression of feelings was 'enabling,' 'therapeutic' (p.305) and enhanced critical reflection.

In his 2007 review, Taylor found that more research was needed regarding "the role of particular feelings (e.g., anger, shame, happiness) in relationship to transformative learning" (p. 188), regarding how to engage emotions in practice, and regarding critical reflection. These and previous findings clearly imply that more research is needed on the processing of emotions and the role of emotions in successful transition through phases of transformative learning.

Critical Reflection Integral to Transformative Learning

In a discussion about Mezirow's theory, Baumgartner (2002) stated "critical reflection is the lynchpin in the transformative learning process" (p. 45). Critical reflection is said to be essential to transformative learning (Mezirow, 1990) by challenging our assumptions and allowing for development of different meaning perspectives or points of view.

Taylor's 1997 review has the most significant number of studies that explored the importance of critical reflection to transformative learning. He includes Clevinger (1993), Harper (1994), and Whalley (1995), who all found that critical reflection was essential to transformative learning. Taylor reported Laswell's (1994) study, finding critical reflection as significant to the revision of meaning perspectives, and Cochran's (1981) study that found disclosure enhanced meaning perspectives. In an interesting twist, he includes William's (1985) study, who found that an increase in reflection with abusers showed a decrease in abuse.

In Taylor's 2000 review, he stated that while critical reflection is important to transformative learning, there is not enough attention to "the significance of affective learning - the role of emotions and feelings in the process of transformation" (p. 303). The 2007 review continued to show significant importance of critical reflection to transformative learning (p. 185). While these findings affirm critical reflection is important to transformative learning, understanding the expression of emotion keeps the path open to critical reflection might just be a bit more important.

Connection to Self and Others Essential to the Transition Process

The need for support from others is essential to transformative learning (Berger, 2004; King, 2003), especially in phase two and three of the process. In Kessler, et al (2009), the study found that individuals who felt stuck in this process, "lacked support of health care providers,

family and friends” (p. 1062). Loss of a loved one due to suicide is not a common experience that others can relate to well, and oftentimes shy away from. Without support from others, disoriented or traumatized individuals are likely to stay isolated and unable to transition to later phases of transformative learning. In Taylor’s (1997) review, Sands & Tennant (2010) reported statements made by loved ones about the inability to find connection (p. 109). This inability may speak primarily to the disconnection with the loved one in this study, however, this can relate to making connections with others as well.

Making connections requires trust and in Taylor’s 2000 review, he stated specifically that "through trusting relationships learners develop the necessary openness and confidence to deal with learning on an affective level" (p. 308). Developing trust after a disorienting or traumatic event is difficult and can be time consuming. Unlocking and integrating ordinary sensory processes with cognitive functioning must be restored before a return to the natural flow of feeling can be secured within the body and shared with others. Feeling secure within self and with others will also be necessary before having the ability to share personal narratives (Saavedra, 1995, as noted in Taylor 1997), which can facilitate and enhance meaning making in critical reflection (Cochran, 1981, as cited in Taylor 1997).

These findings support the idea of connections, however, there is no specific discussion of how connections might be made, especially after a disorienting dilemma. For this inquiry, learning how to connect with isolated individuals may facilitate the transformative learning process.

Table 4. *Abbreviated Table of Literature Review Themes*

Author (or cited in Taylor 1997, 2000, 2007)	Key Findings/Themes	Identifies Gaps re:
Mälkki (2011), Berger (2004), Kessler, et al (2009), Brookfield (1994).	Identified inability to move from phase one, disorienting dilemma to phase two in TL.	lockdown embodied cognition.
Mezirow (1990), Mälkki (2011), Brookfield (1994), King (2003), Kegan (1979), McWhinney & Markos (2003), Post & Kegan (2017), Perry (1968), Rodgers (2002), Sands & Tennant (2010), Berger (2004), Bridges (1980), Lytle (1989), Clark (1991), Courtenay et al. (1996), Neuman (1996), Taylor (2007).	Identified terms regarding unwillingness to experience feelings, creating a barrier to further transition to TL.	research that demonstrates lockdown of embodied emotion.
Taylor (1997, 2000), King (2003), Kessler at al. (2009), Berger (2004), Pope (1996), Egan (1985), Morgan (1987), Coffman (1989), Saavedra, 1995), Gehrels (1984), Neuman (1996).	Indicated the need for expression of emotion before transition can occur.	research showing the expression of emotion necessary to TL.
Mezirow (1978, 1990), Boyd & Myers (1988), Baumgartner (2002), King (2003), Taylor (1997), (Clevinger, 1993), (Harper, 1994), Whalley (1995), Laswell (1994), Cochran (1981), Williams (1985), Taylor (2000, 2007).	Indicated critical reflection essential to and/or enhanced transformative learning, hence, need for transition from phase one to phase two and three.	Movement to phase three as a result of experiencing edge-emotions and not staying stuck in phase one.
King (2003), Berger (2004), Kessler, et al (2009), Sands & Tennant (2010), Taylor (1997, 2000), (Saavedra, 1995), (Cochran, 1981).	Indicated that connection (support) was either critical to or enhanced transformative learning.	Ideas for making connections to transition through emotions to phase two.

Table 5. *Empirical Summary of Baumgartner (2002)*

Author, Date	Title	Purpose	Sample	Methodology	Key Findings	Best Quotes	Significance to Study/ Implications
Baumgartner, 2002	Living and Learning with HIV/AIDS: Transformational Tales Continued	To examine the nature of learning over time	11 of 18 participants from studies in 1995, 1998, and 1999 7men 4 women Avg. age 31-49 + one 61 yr. old 7 Cau. - 4 AA Data sets from previous studies were included analyzed using psychological, biographical, and linguistic approaches to narrative analysis.	Qualitative - Case Study Narrative analysis - (Bruner, 1986, p. 153) & (Etter-Lewis, 1993; Josselson, 1996). (p. 48) Alexander's (1988) approach (psychological) primacy and frequency (p. 269). Denzin's (1989) biographical approach Epiphanies/societies Gee's (1990) Socio-linguistic approach. (p. 49) Semi-structured interviews 1.5 to 3 hours Interviews tape, recorded, and transcribed Spradley's (1980) four-part method of transcription. Consent + Rights Clarification & Member checks	Four major findings emerged: nature of learning transformational, perspective transformation remained stable; 1988 meaning scheme changes acted on; new meaning schemes (a) an increased appreciation for the human condition and (b) an expanded view of intimacy; social interaction integral to the learning process.	"Critical reflection is the lynchpin in the transformational learning process." p.45	"Designs of research need to be more innovative . . . They should include ongoing longitudinal" (p.46) " . . .transformational learning experiences in the classroom have empirical evidence that this learning experience holds" (p.58) " . . . offers assurances that fundamental beliefs and assumptions of learners are continuously changing" (p. 58) "group activities to foster transformational learning should not be underestimated" Need for examination of ethics (p. 58)

Table 6. *Empirical Summary of Berger (2004)*

Author, Date	Title	Purpose	Sample	Methodology	Key Findings	Best Quotes	Significance to Study/ Implications
Berger, J. G. 2004	Dancing on the threshold of meaning: Recognizing and understanding the growing edge.	to look at data and theory - help us better understand what we ask of students when teach for Transformation - with changes in action being the ultimate goal.	Ages 25-69 variety of different professions Diverse Educational privilege	Qualitative 20 interviews from several qualitative studies Using Robert Kegan's (1982, 1994) Subject-Object Interview - find and chart <u>the growing edges</u> of meaning making. Re-read interviews and coding	"a transformative teacher helps students reach the edge of their understanding and then stays for the difficult work of helping students become comfortable living on the edge, so that the edge becomes incorporated into the shape of their world, making that world larger than it was before and making new actions possible from a larger field than previously available" p.347.	"Naming the growing edge is in itself a powerful intervention" (p. 346). Kegan re: Transformation "not just the way he behaves, not just the way he feels, but the way he knows—not just what he knows but the way he knows" (Kegan, 1994, p.17). (p. 340). "I am extending Cranton's (2000) argument" (p. 345) "The work of a transformative teacher in this case is not to solve (or to praise, which is another natural reflex)" (p. 346.)	Perry (1968) pointed out, this change of perspective comes with a <u>loss</u> —a loss of satisfaction with earlier perspectives. (p.340) " <u>many elements</u> shape a person's reaction to being at the edge of his or her knowing" (p. 344). "Other factors—personality type, community of support, past experience with risk and recovery—are likely to play a major Role" (p. 344). Bridges (1980) reference to "the neutral zone" (p. 344).

Table 7. Empirical Summary of Brookfield (1994)

Name, Date	Title	Purpose	Sample	Methodology	Key Findings	Best Quotes	Significance to Study/ Implications
Brookfield , (1994)	Tales from the dark side: A phenomenography of adult critical reflection.	To gain a critical perspective on the process of critical reflection.	337 educators (223 doctoral students majoring in adult education 114 graduate students who have written autobiographical analyses of critical reflection) Diverse in ethnic and work areas	Qualitative Phenomenography (1) journals (2) personal conversations (3) classroom discussion (4) structured autobiographical analysis	Five significant themes emerge from passionate, emotional and diverse experiences. Impostorship - no right or talent to critically reflect cultural suicide - critical reflection invokes the censure of community lost innocence - sadness for unobtainable universal certainty roadrunning CR - a halting, incremental rhythm) community - peer support groups important to critical process.	"found themselves <u>marginalized</u> as they slipped increasingly into a critical mode" (p. 57). ". . . <u>regressions</u> they report that they experience them as <u>devastatingly final</u> . . ." (p. 58). "never 'get' critical reflection, may as well <u>return to</u> tried and trusted ideas and actions . . . at least they were known, <u>comfortable and familiar</u> " (p. 58). "feeling of being <u>in limbo</u> and <u>nothing new that has congealed</u> in their place" (p.59). "This is the time when educators crash . . . claw their way back to the security of the known" (p. 59). As happens with the Coyote . . . whatever . . . <u>trauma or discrepancy</u> . . . sooner or later . . . preparedness for the moment of suspension . . ." (p.59).	"it is important that adult educators have the chance to gain accurate insight into the emotional and cognitive ebbs and flows of this process so that periods of confusion and apparent regression can be tolerated more easily" (p.60). " realize that what they thought were idiosyncratic incremental fluctuations in energy and commitment, private morale sapping defeats suffered in isolation, and context-specific barriers preventing change, are often features that are paralleled . . ." (p. 60) "insights into how these feelings or barriers can be ameliorated, can be the difference between resolving . . . falling prey to a mixture of stoicism and cynicism in which staying within comfortably defined boundaries of thought and action becomes the overwhelming concern." (p. 60).

Table 8. *Empirical Summary of Kessler (2009)*

Author, Date	Title	Purpose	Sample	Methodology	Key Findings	Best Quotes	Significance to Study/ Implications
Kessler et al., 2009	Meaning perspective transformation following stroke: the process of change	To explore if the change that occurs following stroke follows a process similar to transformative learning.	Recruitment through local organizations for stroke survivors 10 men and 2 women Avg. age 54 Range 44-74 8 - right brain 3 - left brain 1 - bilateral All could walk w or w/o aid, but some limitation in movement or balance 4 deficits in communication Time since onset - avg 6.5 years Range 3-11 years	Grounded Theory Semi-structured interviews (re: personal experience of stroke) Audio-taped and transcribed Member checked Constant comparative method Strauss and Corbin, 1990 coding (open, axial and selective), memo writing and constant comparison. concepts or categories. Transcribed interviews	Meaning perspective transformation occurred with four factors contributing to transformation: triggers, support, knowledge and choices to action.	"This study [Carpenter, 1999] found that those who reported feeling stuck and unable complete transformation lacked the support of health care providers, family and friends." (p.1062) "Those who were stuck were not able to describe what changes were desired" (p. 1063).	Previous studies: offer "little information about what facilitates transition from one phase or stage to another" (p. 1057). Heart Attack vs trauma?

Table 9. Empirical Summary of King (2003)

Author, Date	Title	Purpose	Sample	Methodology	Key Findings	Best Quotes	Significance to Study/ Implications
King, 2003	Understanding Adult Learners Amidst Societal Crisis: Learning and Grief In Tandem	examine adult learners' needs and experiences in times of emotional trauma To determine if educational accountability might be needed in such contexts.	19 adult education graduate students in New York City, volunteers p. 23, diverse cross-section of continuing professional and higher p.16 education learners.	Mixed Method survey questions/Learning Activities Survey developed by King (1997) revised (p. 15) small group discussions, follow-up surveys, free response, multiple choice, and short essay response items, charts as a source of data (p. 13) Triangulation (p. 15) Member checking (p.15-16) participant-observer study within the paradigm of qualitative research (Cresswell, 1998) initial survey and focus groups took place 2.5 months after 9/1 1 ; follow-up surveys 1 0 months after the attacks. (p. 15) Used frameworks of both transformational learning and grief/bereavement (p. 14). 4 Research questions: totaled descriptive, demographic data and objective responses; frequencies, means, ranges, and percentages (Gall, Borg, & Gall, 1996) separately evaluated free responses and verbatims regarding TL, grief and any connecting themes (p. 16)	TL & Grief: (p. 21) Sixty-seven percent helped <u>constructive reflection</u> beyond <u>anger</u> . small group beneficial to most with validation (100%) beneficial in sharing and supporting each other (83%) helped understand others' feelings (83%) helped realize they not alone (67%). (p. 21) five major characteristics: (p. 16)	"The adult learning concept of perspective transformation suggests an appropriate framework from which to address these experiences, but in another respect it is <u>lacking</u> the element of <u>coping with tragedy</u> " (p. 14) "I wondered whether we can or should consider the stages of <u>grief in tandem with transformational learning</u> to better understand how adult learners manifest coping with mass tragedy" (p. 14). " <u>continuing higher education classroom</u> can be a valuable environment and resource in which to consider lifelong learning by building on personal and community experience (Ross-Gordon & Brown-Haywood, 2000). (p. 23)	"Rather than feeling <u>trapped interminably in grief</u> , 10 months after <u>came to recognize learning through experiences of bereavement</u> ." (p. 16) " <u>less emphasis is placed on the emotions</u> experienced and <u>more emphasis is centered on the actions</u> of bereaved" (p. 15) "view transformational learning within the grieving process, vs grief in the learning process" (p. 14). Connectedness (p. 17 & 19) "The framework helps me understand my feelings" (p. 21) "It appears that the process of questioning, challenging, and deliberating resulted . . . changes in perspective . . . can lead to some experiencing . . . reorganization of their meaning perspectives or "frames of reference." (p. 22)

Table 10. *Empirical Summary of Sands & Tennant (2010)*

Author, Date	Title	Purpose	Sample	Methodology	Key Findings	Best Quotes	Significance to Study/ Implications
Sands & Tennant, 2010	Transformative Learning in the Context of Suicide Bereavement	to analyze the dynamics of the grieving process and the transformative experience of the bereaved	16 female & male Age 19+ Bereaved/Suicide of Sig. person +2 mos. - bereaved/starting workshop (study)	30hr/12wk Workshop-Suicide Bereavement Group (Ed./Disc., Pairs, group artwork, grief rituals, journaling - "the death story? p. 111) Consent Identified and Analyzed 6 Essential meaning-making themes to increase understanding of Grief experience in a Suicide death) (p. 104) Analyzed into three stages: 1. Common themes 2. Grouping Themes/Categories - 9 3. Conceptualization of Core Themes - 3 (p. 105)	"space is created for positive remembering, repositioning, and restoration of a nurturing relationship with the deceased" p. 114. "Emotional engagement then lies at the heart of transformative learning" p.116 "illustrates . . . (Mezirow's stages)" p.114 "the main point is that participants: w/new ways of seeing were opened up, which were more emotionally satisfying." p. 117	. . . it is necessary to go beyond Mezirow's depiction of transformative learning (to explain liminal space)" p. 108. "The movement out of liminal space into repositioning relationships with the deceased, oneself, and others is evident in the language used by those who have made this journey." p.112 ". . . there is a need to conduct further research in such nonformal education sites in order to fully integrate theory, practice and research into transformative learning." p 118 "I can't find a connection . . . I cannot find a connection with . . ." p. 109.	Timing +2 mos. of study does not allow for grief process to indicate anger or sadness clearly, yet length of study 12 wks, can. Healing still connected to narrative and cognition. (p. 117) Anger, a sense of abandonment, guilt, shame, confusion, and a feeling of being betrayed [sadness not mentioned] are common reactions to a suicide death— all of them inviting a reappraisal of the bereaved's relationship with the deceased, and indeed of their sense of self and relationships with others (Clark, 1995; Jordan, 2001; Wertheimer, 2000). p. 102

Table 11. Empirical Summary of Taylor (1997)

Author, Date	Title	Purpose	Sample	Key Findings	Future Research
Taylor, 1997	Building upon the Theoretical Debate: A Critical Review of the Empirical Studies of Mezirow's Transformative Learning Theory	to conduct a critical review of empirical studies that have investigated transformative learning over the last 17 years.	<p>39 studies selected</p> <p>Two criteria for selection:</p> <p>1.The study involved Mezirow's framework of TL</p> <p>2.Empirical study</p> <p>most qualitative or phenomenological</p> <p>semi-structured interviews of reflection on previous TL experiences.</p> <p>2 masters theses, 10 conference proceedings, and 30 dissertations.</p> <p>Acquired by . . . Contacting author, etc.</p> <p>Had salient results</p>	<p>(listed only those studies re: emotions)</p> <p>Pope, 1996 - describes dd "a gradual accumulation of energy . . ." (p. 300 in 2000 review) and can take a long time which relates to p. 44</p> <p>Courtenay et al., 1996 - found an "initial reaction" at diagnosis of HIV that lasted six months to five years (Reactions generally associated to Flight, Fight, Freeze - Freeze? Denial? Stuck?) p. 45</p> <p>From Table:</p> <p>Olsen & Klein, 1993 - TL <u>impeded</u> by cultural alienation (trauma?)</p> <p>Lytle, 1989- most <u>stall</u> in CR</p> <p>Coffman, 1989 - <u>resolving feelings</u> essential to CR</p> <p>Morgan, 1987 - need to <u>resolve anger</u> before CR</p> <p>Sveinunggaard, 1993 - CR <u>dependent on affective learning</u></p> <p>D'Andrea, 1986 - <u>readiness</u> was a prerequisite for change</p> <p>Laswell, 1994 - process to CR recursive</p> <p>Egan, 1985 - more complex learning w/<u>affective change</u></p> <p>Gehrels, 1984 - (feelings trigger for reflection); Laswell, 1994; and Weisberger, 1995 - connectedness w/others.</p> <p>Taylor, 1993 - found some TL not dependent on CR</p> <p>Kennedy, 1994 - found some TL occurred regardless of reason</p>	<p>most carried out in retrospect, need for longitudinal studies and other than phenomenological approaches p. 56</p> <p>need for a more holistic and contextually grounded view of TL in adulthood p.51</p> <p>need for more attention to the role of context p. 54</p> <p>TL needs to be explored at an more in-depth level to increase knowledge of the nature of the disorienting dilemma, the significance of context, and the role of other ways of knowing. p. 55</p> <p>need recognition of difference p. 55</p> <p>need researchers to make more of an effort to publish their work p. 56</p>

Table 12. Empirical Summary of Taylor (2000)

Author, Date	Title	Purpose	Sample	Key Findings	Future Research
Taylor, 2000	Analyzing research on transformative learning theory	to discuss the current research about the theory and practice of TL and explore some of the questions that remain unanswered.	Same two criteria as previous study. 46 studies reviewed Most Qualitative 7 of those are new studies since previous review.	<p><u>w/o the expression and recognition of feelings</u> participants will not engage in their new reality. p. 290</p> <p>journey is less linear than <u>recursive</u> p. 291</p> <p>discussion in studies <u>less on critique</u>. p. 288</p> <p><u>continued support</u> of affective learning primary to CR p. 305</p> <p>"Morgan (1987), Coffman (1989), and Sveinungaard (1993) FOUND THAT CRITICAL REFLECTION CAN ONLY BEGIN ONCE <u>EMOTIONS HAVE BEEN VALIDATED AND WORKED THROUGH</u>" p. 303. (Taylor 2000)</p> <p>Coffman, 1989 - <u>most in-depth</u>, explored the process of acceptance & feelings of resentment. p. 290 & found that more inclusive feelings should be replaced and not limit to guilt and shame. p. 290.</p> <p>Morgan, 1987 - <u>most universal and profound stage was anger and must be resolved</u> before movement p.291</p> <p>Neuman's 1996 study (added to previous review):</p> <ol style="list-style-type: none"> 1."acquiring the ability to recognize, acknowledge and <u>process feelings</u> and emotions as <u>integral aspects of learning from experience</u>" (p.460). p. 304. 2.An <u>unwillingness</u> to respond to these feelings often <u>resulted in a barrier</u> to learning. p. 304. 3.Affect played a <u>multifaceted role</u> in learning from experience. p.304. 4.The processing of feelings and emotions related to experience was both <u>enabling</u> (expanded the power and scope of critical reflection) and <u>therapeutic</u> (appreciation of working through negative feelings as essential for personal development). p. 305 5.Affective learning resulted in a greater sense of <u>self-confidence and self-worth</u> p. 305. 6.Often intensive emotional experiences, particularly <u>grieving the loss of old meaning</u> structures and acquiring of new ones. p. 305. 	<p>More research is needed:</p> <p>to identify the inherent components, internal and external, necessary for TL to occur. p. 292</p> <p>to discover what types of prior learning and development contribute to learning readiness especially for developing (Brookfield, 1996, p. 496) p.306</p> <p>Questions arise about how TL manifests itself with age? p. 289</p> <p>Less attention to CR, more to the significance of affective learning - p. 303</p> <p>To the role of context in TL p.309</p> <p>to move beyond the debate about the significance of feelings in TL to more insight into its relationship to CR. p.300</p> <p>begin focusing on particular feelings, such as anger, fear, shame, happiness, and the like and explore how they inform the reflective process. Neuman (1996) p.318</p> <p>identify strategies to help educators maximize the use of feelings in the reflective process. (Brookfield, 1996) p.305</p> <p>Action-research should be used in the classroom to explore practical use of TL p. 323</p> <p>in area of action research -qualitative research generally overlooked (McCutcheon and Jung, 1987, p. 148.) p.320</p> <p>fostering transformative learning p. 312</p> <p>consider ethics p. 315.)</p>

Table 13. Summary of Taylor (2007)

Author, Date	Title	Purpose	Sample	Key Findings	Future Research
Taylor, 2007	An update of transformative learning theory: a critical review of the empirical research (1999–2005)	to critically analyze the growing body of empirical literature on transformative learning theory.	41 peer-review journal studies Qualitative five new studies that were framed within related conceptions of transformative learning (Jarvis 1999, 2003, Pohland and Bova 2000, James 2002, Kovan and Dirkx 2003, Lange 2004). These studies included conceptions of transformative learning from the perspective of depth psychology (e.g. Boyd and Meyers 1988, Cranton 1992, Dirkx 2000), critical theory (Freire 1984) and identity development (Wenger 1998) p. 174	continually demonstrated reflection's essentiality to transformative learning. p. 185 interesting - <u>recognition that epistemological change</u> among some participants was <u>not adequate for a transformation to reach fruition</u> . p. 180 <u>less research</u> about the possibility and process of TL occurring in a particular <u>context</u> or as result of a particular life event, and <u>more research about the nature of a learning</u> experience and how it informs TL p. 176 <u>greater attention</u> given to investigating the complexities of <u>essential components of transformative learning</u> such as CR. p. 176 growing <u>international</u> interest in TL p. 176 <u>lack of critical evaluation</u> of TL continues to lead to a reification and a redundancy of research. p. 176 Increase in studies that involve the use of scales, surveys and/or open-ended questionnaires in the study of transformative learning. Mixed methods. p. 177 emerging research phenomenon - the engagement of photography and video when researching transformative learning. p. 188	More research is needed: about how to effectively engage emotions in practice, particularly in relationship to its counterpart critical reflection p.188 to the role of particular feelings (e.g. anger, shame, happiness) in relationship to transformative learning. p. 188 to develop similar frameworks (Kreber 2004) and coding schema (Liimatainen et al. 2001) p. 186 to explore more contexts, i.e. teaching p. 186 and allowing for <u>some discomfort while on the edge of knowing</u> , in the process of gaining new insights p. 197 to understand why some students openly engage in the process and others <u>refuse to participate?</u> p. 187 In the emerging use of action research and transformative learning. p. 177 into the challenges associated with action research, i.e., how to manage emotive consequences and the learner-centered approach to action research, within the context of a clearly defined research agenda. p. 177 to the role of culture and/or difference p. 178 to the most elusive concepts in defining a perspective transformation (Taylor 1998) p. 180

Analysis—Barriers to Transition from Phase One to Phase Three

Mezirow's (1978) transformative learning theory is a 10-phase process that leads to perspective change. The process is not necessarily linear nor are all phases required, however, for the purposes of this literature review the focus of the analysis is on the first three phases, the disorienting dilemma, self-examination, and critical reflection, with the assumption they occur in order and are all critical to the success of the transformative process. The purpose of this section is to analyze findings from the empirical studies selected for this literature review, to reveal a gap in the literature relating to these three phases.

The Disorienting Dilemma = Initial Reaction

The first phase of the transformative learning process is the disorienting dilemma, an experience described as being caught off-guard by a perceived threat. This threat prompts an internal question that requires some processing of sensory, emotional, and intellectual experiences. In minor disorientation, the response to this threat involves minor processing of embodied cognition and abates once the threat is reflected upon, and action is taken. The initial response or reaction to a minor disorienting dilemma might be better known as surprise, shock, disbelief, or denial.

When a disorientation is more intense (or traumatic), however, the reaction can cause the limbic system to initiate a lockdown of sensory and emotional experiences and the pre-frontal cortex, to move the body into survival mode. This reaction represents a lockdown of embodied cognition, or the freeze response discussed in the trauma literature. This inquiry is primarily interested in understanding how these barriers physiologically disable embodied cognition and how to get it going again.

Staying on the Edge = A Lockdown of Embodied Cognition

Many authors cited in this review refer to a moment of being at the edge or stuck, between the experience of the disorienting dilemma and the third phase, critical reflection. In a discussion about what happens prior to the third stage, Berger (2004) alludes to the phenomena of being stuck, stating, "many elements shape a person's reaction to being at the edge of his or her knowing" (p. 344). Taylor's (1997) review included two studies, Lytle (1989) and Clark (1991), that spoke to a 'stalling' (p. 40) in the process of critical reflection.

Brookfield (1994) speaks to one educator's reference to a 'feeling of being in limbo' (p.59). Later, he uses the analogy of the coyote (from the Roadrunner cartoon) finding himself frozen in mid-air, after running off a cliff (chasing the roadrunner) to identify the experience of being stuck as a 'moment of suspension' (p. 59). These examples all correlate to the freeze response discussed earlier and to what I described in this research as a lockdown of embodied cognition. However, there is no discussion regarding "the elements" (Berger, 2004) or specific references to reasons that might be causing this sense of stuckness.

Lockdown of Embodied Cognition Represents an Avoidance of Sensory or Emotional Experience and Movement to Comfort zone.

The difficulty of being stuck is identified as 'the neutral zone' in Bridges (1980, as cited by Berger, 2004) study, and is described as 'painful' and 'the hardest piece of transformation' (p. 344). In his 2000 review, Taylor discussed Neuman's 1996 finding that 'an unwillingness to respond to [experience] feelings often resulted in a barrier to learning' (p. 304). Brookfield (1994) mentions one frustrated participant stating they would "'never get' critical reflection, [and] may as well return to tried and trusted ideas and actions . . . at least they were known, comfortable and familiar" (p. 58). These responses indicates a resistance to the sensory,

emotional, and intellectual experiences with the potential to provoke movement to a comfort zone Mälkki (2011). In these examples, the experience is too painful, there is an unwillingness to experience the feelings, or there is a desire to be in a zone that is comfortable and familiar. Unfortunately, as suggested by the participant, the return to a “comfortable and familiar” comfort zone allowing the avoidance of the sensory or emotional experiences, inhibits transformative learning. There only discussion regarding movement to self-examination and critical reflection is about acknowledging and experiencing the emotions and in one study they described different methods for doing this work with a group. There is no discussion about how to do this in different scenarios.

Lockdown = Potential to Last Over Short and Long Periods of Time

In a serious event of disorientation (or trauma), an individual can stay on the edge of their knowing (or stuck) long after the threat has passed, and oftentimes for years. For example, Courtenay et al., (1998) found an ‘initial reaction’ to the diagnosis of HIV that lasted six months to five years. King (2003) points to a comment made by a student, indicating some passage of time at the edge, when they stated they no longer felt ‘trapped interminably. . .’ (p.16) implying the experience seemed endless. Staying on the edge implies the transition to phase two and three may be effected. These examples imply that in some cases it can take a long time to re-establish effective physiological and cognitive functions. Staying on the edge may mean one is resisting or repressing sensory and emotional experiences or it may mean that the grief process is stalled. Anyone can get stuck in any stage of the grief process effecting movement to subsequent phases of learning.

Lockdown = An Inability to Process Sensory, Emotional, or Intellectual Functions

In a discussion about the difference between participants who experienced positive transformation or minimal transformation and those who did not experience transformation, Kessler, et al. 2009 stated, "those who were stuck were not able to describe what changes were desired [to traverse the barrier]" (p. 1063). Similarly, a comment made by a participant in Berger's (2004) study brings up another interesting circumstance of being at the edge of understanding indicating a lockdown of embodied cognition. The participant stated 'This is where language fails' (p. 343). This phenomenon relates to an experience in trauma, Alexithymia, an inability to express feelings due to the lockdown of cognitive functions, indicating a lockdown of sensory or emotional functions as well as intellectual function (Van der Kolk, 2014). Either way, this would explain why individuals do not want to talk about their experience as it might provoke the sensory or emotional experience. How do we get folks to experience their experiences so they can move to subsequent phases and experience transformation?

The Transformative Process Requires Support

In his latest review, Taylor (2007) found a need for the development of trust to allow for students to experience "some discomfort while on the edge of knowing. . ." (p. 187) in turn, facilitating movement from phase one to phase two. This information would be especially useful if we are looking for better ways to foster transformative learning in adult learning classes. In helping students become comfortable with living on the edge, Berger (2004) stated, "naming the growing edge is in itself a powerful intervention" (p. 346). This might be done effectively by using Kübler-Ross' model of grief. Participation in class discussions and exercises with students regarding life disorientations might inadvertently create "growing edges" (Berger, 2004, p. 343)

and facilitate transformative learning in the classroom. Hence, if an initial reaction or stalling occurs due to an unwillingness to respond to feelings, trust might be an element for facilitating movement from phase one to phase two.

Terms (included in Chapter 1 Introduction) found within these studies at the time of the review, referring to the phenomenon of being stuck or on the edge, include ‘ego equilibria’ or ‘hanging in the balance’ (Kegan, 1979), ‘lightning strike’ (McWhinney & Markos, 2003, as cited in Taylor, 1997), ‘unconscious habit memory’ (Post & Kegan, 2017), ‘catastrophic disorganization’ (Perry, 1968, as cited in Taylor, 1997), ‘enduring suspense-feltness’ (Rodgers, 2002), ‘mental emergency’ (Mälkki, 2011) and ‘liminal space’ (McWhinney & Markos, 2003, as cited in Taylor, 1997; Sands & Tennant, 2010). This is a significant experience in the first phase of a disorienting dilemma and while it is referenced in almost every study, there is no information discussing how to resolve this issue.

Kessler Substantiates Research Indicates No Information About What Facilitates Transition

Kessler, et al. (2009) noted, studies of stroke survivors often discuss the experience of disorienting dilemmas, however, “provide little information about what facilitates transition from one phase or stage to another” (p. 1057). Obviously, there is a need to understand the phenomena of phase one to facilitate movement to the subsequent phases of the transformative learning process.

Conclusion

As demonstrated in this literature review, a substantial group of transformative learning researchers show interest in and support further research on the emotional dimension of, and barriers to the transformative learning process. Specifically, there seems to be an interest in

research on the “elements” (Berger, 2004) responsible for disabling embodied cognition in the first phase of the learning process.

The disabling of embodied cognition is often referred to in the literature as being “stuck,” and is identified by at least fifteen authors, with as many uniquely evocative terms. Fear, elicited by an alarm sent by the amygdala to warn of a threat, is identified as the initial sensory experience initiated by the felt sense, causing what is often referred to, similarly, as a freeze response in the trauma literature. This experience is often uncomfortable and commonly referred to as being “on the edge” (alluding to Mälkki’s concept of edge-emotions). The discomfort can cause resistance, repression, and avoidance of the sensory experience, instigating a lockdown of embodied cognition.

There is a consensus about the need to manage this experience by sitting in, or “lingering on” (Mälkki, 2019) these edge emotions, to allow for the release of these sensory or emotional experiences and enable transition to subsequent phases. Without a specific understanding of how to process sensory and emotional experiences, a lockdown of embodied cognition can last for long periods of time, as King’s study demonstrated with participants who were still in anger 10 months after their experience with 9-11.

Associated to the success of transition to subsequent phases involves acquiring a sense of trust to make a connection to self and others for support and dialoguing about meaning making (Boyd & Myers, 1988; Dirkx, 2000).

The Gap

This literature review explored recent empirical literature regarding Mezirow’s transformative learning theory, to identify gaps regarding barriers specific to critical reflection, and explore the idea of an emotional dimension for the theory. The importance of emotion in the

processing of a disorienting dilemma seems to be on top of the list for further research.

Following this is what happens or is necessary for transition from phase one to phase two and three, the need for support to help regain connection to self and others, and the importance of movement to critical reflection as integral to transformative learning.

Additionally, helping learners understand and make sense of emotion-laden experiences within the context of the curriculum represents one of the most important and most challenging tasks for adult educators (Dirkx, 2008, p. 9). How might we safely, ethically, and effectively foster transitions from phase one to phase two in adult learning settings?

The gap this study will address is . . . the elements or biological constructs of embodied cognition to increase knowledge about how these effect embodied cognition and find support for disoriented individuals in phase one of the transformative learning process. Additionally, this study will explore the emotional dimension to identify how a locked down embodied cognition can be released to minimize dissociation from self and others. This process will need to create a safe, ethical, and effective process to facilitate the effective navigation through what Mälkki (2011) refers to as “edge-emotions,” movement to a healthy “comfort-zone,” and transition to phase three, critical reflection, to foster transformative learning in adult education.

Closing Summary

This chapter began with a brief introduction and chapter summary including the design of the literature, followed by the theoretical frameworks of Mezirow (1978), Mälkki (2011), and Kübler-Ross (1970). These frameworks support this research by providing a structure and understanding of the transformative learning process, a conceptualization of a frame of reference, and a conceptualization of a grief process. After this, the articles of the literature were

introduced, synthesized, and analyzed. Lastly a conclusion was offered regarding the articles, leading to a gap being identified and closing the chapter.

CHAPTER 3

METHODOLOGY OF RESEARCH

Forty years of research addressed the absence of an emotional dimension of Mezirow's (1978) transformative learning theory and the experience of being “stuck” in the first phase of the transformative learning process. Forty years of experience as a psychotherapist has shown that a significant number of individuals experience being stuck, acknowledging a resistance to the sensory and emotional experiences of transformative learning. For many, the expression of emotion is a sign of weakness. Successful completion of this irreversible and sustainable process results in significant developmental changes in the way one constructs new frames of reference, improving their interactions and connections with self, others, and the world (Hoggan, 2016).

Although the subject of mental health is currently a societal hot topic and therapy becoming more acceptable, there remains confusion about what is considered “natural, normal, [and] normative” (Weiss, 2015, p. 93) regarding the role of the natural sensory and emotional microprocesses responsible for unlocking embodied cognition and the need for their expression to support transformative learning.

The natural resources of *preconscious* sensory and *conscious* emotional experiences evolved to serve to sustain human life (Damasio, 1991; van der Kolk, 2015) and are integral to learning (Levine, 2015; Mälkki, 2011; Mezirow, 1978). This qualitative research study used the narrative inquiry approach to identify these preconscious and conscious microprocesses of embodied cognition, illuminate and understand the role of these natural processes in transformative learning, and find support for the need of a grief process to manage these

sometimes-uncomfortable experiences and identify this process as a construct of the emotional dimension of the transformative learning theory.

Chapter Summary

To remind the reader of the context of this research, this chapter will begin with the problem statement, purpose statement, research question, and subjectivity statement followed by a discussion about the selection of the topic for this research. Following this, the methodological approach outlines the structure of the study with a presentation of philosophical and theoretical frameworks used to help support the ontological and epistemological premises regarding the identification of preconscious and conscious microprocesses of embodied cognition. The chapter closes with a discussion of the research design, including the methods of narrative inquiry, participant recruitment and selection, data collection and analysis, validity, reliability, ethical issues related to the study of disorienting dilemmas that might be considered traumatic, and an ethical review.

The Problem

The lived experience of disorientation—a personal acute, chronic, or complex, distressing internal or external event—can provoke a lockdown of the cognitive functions of embodied cognition (Johnson, 2015; Mezirow, 1978; van der Kolk, 2015), stalling the transformative learning process. The physiological experience of this lockdown is responsible for, and correlates with that of a freeze response, the initial experience of trauma as discussed in the trauma literature (van der Kolk, 2015).

The lockdown and freeze responses render individuals powerless as they struggle with the *preconscious* microprocesses of embodied cognition, fear, anger, flocking. This unyielding state, aside from making it difficult to identify actionable responses to resolve a threat, also

impacts movement toward the conscious emotional and intellectual microprocesses of knowledge acquisition. The inability to act sustains the dysregulation of the body's physiological system, further impeding movement from Phase 1, the disorienting dilemma, to Phase 2, self-examination, and Phase 3, critical reflection—transitions essential to the transformative learning process (Mälkki, 2011; Mezirow, 1991; van der Kolk, 2015).

The Purpose

The purpose of this research was to explore the lived experience of embodied cognition in the context of disorientation, to learn how embodied cognition supports or impedes transformative learning. Of special interest was the felt sense, the inceptual natural physiological “location of meaning” (Freeman, 2017, p. xiii) comprised of the first three microprocesses of embodied cognition. The felt sense *preconsciously* uses previously stored sensory experiences and the microprocesses of fear, anger, and flocking to inform the body of a threat, motivate action, and seek safety. These “series of events” (Freeman, 2017, p. 31) are followed by the *conscious* microprocesses, the emotional and intellectual functions of cognition. While these five microprocesses, fear, anger, flocking, emotion, and intellect support the transformative learning process; any one of these can be responsible for the lockdown of embodied cognition impeding successful transformative learning. This research aims to find strategies for eliminating the prospect of these microprocesses becoming a barrier.

As these microprocesses seem to correlate with the stages (in parenthesis) of Kübler-Ross' (1970) grief process, denial (fear), anger (anger), bargaining (flocking), depression (emotion), and acceptance (intellect), the data gathered through this study helped generate support for the prospect of a grief process as a construct of the emotional dimension in Phase 1 of the transformative learning process. A grief process would serve to support forestall the lockdown of

embodied cognition and support transition to Phase 2 and 3—self-examination and critical reflection—the latter, considered essential to the transformative learning process (Boyd & Myers, 1988; Dirkx, 2008; Herman, 2015; Mezirow, 1991; Taylor, 1997, 2000, 2007; van der Kolk, 2015).

Additionally, as the lockdown of embodied cognition causes disconnection from others who might otherwise provide a sense of safety or security for unlocking embodied cognition, an effort to understand how individuals reestablish connections with others, offers additional support for successful transition.

The Research Question

The following research question guided this narrative inquiry:

- RQ1: What is the lived experience of sense making and meaning making through embodied cognition in a disorienting dilemma?

Subjectivities Statement

Entanglement

How might I be entangled with this research topic? I am a 67-year-old White female born in Chicago, Illinois, given up by my biological parents at about the age of two, for the first 10 years of my life to a Mexican-migrant family and for the next 8 years to an Italian family. I am biologically German, Irish, and English; however, I tell folks, I am half Mexican and half Italian, I speak Spanish fluently, and cook Italian, I cannot do the reverse.

As a child, I migrated across the country from Illinois to California with the migrant family and performed the migrant work. While living with this family, I endured severe verbal, emotional, and physical abuse and have no significant memory of these 10 years. After living in California for a year, at 10 years of age, I was sent back to Chicago. My biological father picked

me up from the train station and brought me directly to the Italian family. This family adopted me when I was 15 years old. I attended college in Texas, earned a bachelor's and master's degree in, with a double major in Counseling and Spanish. I found my way to Georgia after a couple of years, where I have lived for 40 years.

Even though I did not remember enough to talk about regarding what happened to me, I was taught all along by adults, by society, what happened is in the past, “get over it,” and “get on with it.” I finally landed in therapy at age 21 and was fired because I would not talk about it. Over the years, I continued in therapy and processed the emotional and intellectual aspects of the trauma and was able to hold it “object’ (Kegan, 1979). My body, however, continues to hold “the score” of this experience with what is clinically identified as exaggerated startle response (van der Kolk, 2015) and uncontrollable freeze responses when my body/mind perceives a threat. I suspect my body will always hold the score, the mark, the trace, however, as Sandra Bullock’s character, Sidda, in *The Divine Secrets of the Ya Ya Sisterhood* (Khoury, 2002) stated, after “adding up the thousands of dollars I’ve spent on therapy trying to figure out what the hell I did wrong,” I have come to understand that what happened to me was never about me.

The vibration, however, of that 64,000-dollar question, has reverberated over the past 40 years, as I engaged with individuals in the community mental health systems of Texas and Georgia, taught at a private college for ten years, and eventually as licensed professional counselor in private practice for over 25 years. I cannot begin to calculate how many times I have heard the question “What is wrong with me?,” “What did I do wrong?,” “Why am I not happy?” “Why am I here (in the world)?,” and more often, “I do not like feeling this way,” “I have tried everything,” and “I do not know what else to do.”

So many have learned how to dissociate from the sensory and emotional experiences underlying their issues. Sensory and emotional experiences are natural resources, physiologically established over time through evolution, to deal with life's difficulties. Emotional experiences are simply the body/mind's attempt to communicate a need (Schroder et al., 2023). When avoided, emotions escalate to draw attention and then, are released inadequately, deriving the justification of being inappropriate. Sometimes, attempts to avoid emotion, distractions such as alcohol, drugs, gambling, shopping, social media, gaming, keep the emotions repressed, only to break down the internal physiological functions of the body and bring about physical disorders.

My lifelong experience brought me to an understanding about how the tendrils of a stoic indoctrination have stretched through history and rooted themselves unconsciously in our brains. The indoctrination, considered a little 's' stoic value, advocates the "endurance of pain without the expression of emotion." This value unquestionably supported many through hard times, specifically through the agrarian era, however, left a pejorative view about emotion, eventually convincing many, the expression of emotions was a sign of character weakness. Unfortunately, supporting this belief is the fact that these emotions *are* uncomfortable, thus, explaining the desire to avoid them.

A second vignette from *Finding Nemo* explains this quite dramatically:

Later, on their journey to find Nemo, Dory and Marlin try to locate the Eastern Australian Current (EAC) to take them to Australia where they believe Nemo to be. They come upon a school of fish who believe that Marlin is bothering Dory because he is frustrated with her inability to remember anything and is talking to her harshly. They ask Dory if Marlin is bothering her and if she needs help. She assures them that she is fine and tells them they are looking for the EAC. After a quick game of "Guess What We Are"

(forming shapes of other oceanic inhabitants whose names Dory cannot remember) hoping to lift her spirit, they direct Dory and Marlin toward the EAC. Marlin takes off immediately as he is in a rush and does not have time for games. However, before Dory gets too far away, the school of fish calls her back to warn her that when she and Marlin get to the trench, they need to go through it, not around it. “Through it, not around it” Dory repeats to reinforce it in her memory. By the time Dory gets to Marlin, he is looking for a way to get around the trench. Dory says, “Red Flag” (as she has forgotten the warning). She does not seem to know why she said this; however, she does have an awareness that it is the wrong thing to do. In order to avoid the trench (sensory and emotional experiences) Marlin distracts her from her thoughts with an invitation to play a game that takes them over the trench and not through it. Above the trench there is a school of jellyfish and Marlin becomes instantly aware that he and Dory are in grave danger. Explaining that the goal of the game is to bounce off the domes of the jellyfish, he hopes to keep her from being stung. Unfortunately, this does not work, and Marlin and Dory almost die before being rescued by a school of turtles. Avoiding or ignoring one’s emotionally uncomfortable experiences can lead to one’s demise.

Embracing these sometimes-uncomfortable physiological experiences of embodied cognition by processing (releasing the energy effectively) and moving through them is necessary to well-being. This release will reduce the overwhelming experience of the emotional energy, leaving only a small trace to remain attached to the event, for the sake of memory and for the sake of learning.

Why is this research important to me? As an adult who experienced significant oppressive and marginalizing trauma as a child and young adult, I have a strong desire to find

answers to alleviate some of the unnecessary pain experienced by individuals caused by an unconscious unknowing or unawareness. While I might not be able to single-handedly end all suffering, I can work toward ending the kind of suffering that comes from not effectively expressing the emotion creating barriers to transformative learning and adult development. Enhancing the understanding of the emotional dimension of transformative learning in adult education is an avenue by which I can create an opportunity for others to learn how to effectively embrace the uncomfortable processes of emotion, increase opportunities for transformative learning, and restore connections to self and others.

Selection of Topic

What first caught my eye about this theory was a significant yet “rehashed” (Hoggan & Finnegan, 2023, p. 8) criticism addressing the lack of a clear conceptualization of an emotional dimension to Mezirow’s (1978) transformative learning theory. I wondered if Mezirow’s notable exclusion was not an objective intention but rather due to an uncritically accepted longstanding pejorative view of emotion (Carter & Nicolaidis, 2023). This view, might have originated from a longstanding cultural stoic value of enduring pain without expressing emotion and identified some emotions as “negative emotions.” This value implied the suppression of emotion was indicative of a virtuous character.

I connected the idea of suppressing emotion to clients I have encouraged to actively move through (i.e., sit in and feel) the emotional experiences related to personal issues, not just talk about them from an intellectual standpoint. I have learned many reasons for why someone might not want to experience their emotions, however, the majority fall into the category of “not wanting to show a sign of weakness,” an expression of the old stoic value. Somehow this

message, subconsciously imbedded in the mind, incites an immediate dissociation from sensory and emotional experiences. Undoubtedly, this is a more comfortable way of talking about issues.

After deciding to investigate the role of emotion in cognition, I became aware of the neuroscientific term *embodied cognition* (Johnson, 2015; Wellsby & Pexman, 2014). Recent findings determined that emotional functions are integrated with and as important as the intellectual functions of cognition. By this time, I collected a number quotes by researchers from 1885 to 2008, acknowledging the pejorative view of emotion in research and education (Carter & Nicolaides, 2023). This evidence supported my view that Mezirow was not the only one overlooking emotion in the scholarly world.

Later, my major professor recommended that I read van der Kolk's (2015) *The Body Keeps the Score*. Although familiar with trauma personally and professionally, I learned from Van der Kolk about the score, the traces on the brain, of damage done by trauma that continue to be experienced long after the initial experience of a traumatic event. More important, Van der Kolk's scientific evidence derived from brain scans allowed me to visually understand, trauma does in fact lock down both the emotional and intellectual functions of cognition. In the trauma literature, a lockdown of embodied cognition is referred to as a freeze response.

Ironically, during a literature review, I became aware of a concern from many transformative learning researchers regarding a phenomenon interfering with the transformative learning process. During the review, I identified about 15 (later the total would rise to 28) different signifiers referring to this phenomenon, which brought to mind an association to the freeze response in trauma. In the process of learning, a disorienting dilemma might not be considered a severe experience like trauma; however, it seems they both encompass a reactive response to something unrecognizable and have similar physiological reactions.

This response is identified by Mälkki (2011) as edge-emotions, otherwise known as fear, followed by anger. These sensory experiences are responsible for informing the body/mind of a threat by initiating an uncomfortable sensory experience and applying an appropriate action to resolve the threat. The inability to take action to process (move through the sensory or emotional experiences of embodied cognition) elicits the experience of feeling “stuck” (van der Kolk, 2015, p. 53). Applying this to transformative learning theory, I posited this might be what happens in the first phase of the learning process, inhibiting healing from the disorienting dilemma, and prohibiting movement to the subsequent phases of self-reflection and critical reflection for the eventual transformation of a frame of reference.

Finally, I gleaned enough information and understanding to support the idea of bodies having natural sensory and emotional resources for managing losses in life as functions of embodied cognition (Damasio, 1999; Herman, 2015; Kübler-Ross, 1970; Levine, 2015; Mälkki’s 2011; Mezirow, 1991; Perry et al., 2018; van der Kolk, 2015) supporting healthy development (Kegan et al., 1982).

I speculated that a misunderstanding of the process of cognition, as solely an intellectual pursuit, coupled with a cultural stoic value condemning the open or public expression of “negative emotions” (fear, anger, and sadness), obscured the prospect of emotion as a function in learning. Rather than understanding them as a signal (Schroder et al., 2023) or sign that something needs to be paid attention to and action needs to be taken, these emotions were unfairly linked to the decline of emotional well-being, associated with mental illness, and contributed to the proliferation of misconceptions about emotion.

Over time, my professional experience has led me to understand, grief processes are viewed as healing processes, primarily for experiences of death and dying, not necessarily other

less serious disorienting dilemmas one has over a lifetime (Kegan et al., 1982; Lathem et al., 2011). I also noticed that all losses big or small seem to follow a grief process. Thus, I proposed, the emotional dimension of transformative learning theory is or involves a grief process (Carter & Nicolaidis, 2023).

I decided to enhance Mezirow's (1978), Mälkki's (2011), and Kübler-Ross's (1970) theories, by increasing the awareness of sensory and emotional experiences as natural resources, by increasing the awareness of emotion as an integrated function with the function of intellect in cognition, by increasing awareness of the use of grief processes for experiences other than circumstances of death and dying, and ultimately, by deconstructing the indoctrination or pejorative view of emotion.

Finally, reminded of Taylor's (1997) endorsement of the importance of resolving emotions in order to transition to critical reflection, I decided, if edge-emotions (fear and anger) opens the door to embodied cognition at the start of a disorienting dilemma, and a comfort zone (resolution) leads to critical reflection at the end, processing—a sense of loss, sadness, or depression—is the middle piece. I posited as a part of the emotional dimension of the transformative learning process, a grief process for negotiating emotions between the front and back doors of phase one was a construct of the emotional dimension of Mezirow's transformative learning theory.

Negotiating the “feelings” of loss regarding old assumptions, ideas, beliefs, before embracing new knowledge is at the core of learning. Finding out, realizing, coming to an understanding of an inaccurate thought, can engender fear, anger, and sadness. Thus, Kübler-Ross's (1970) theory, centering on fear (denial), anger and sadness/depression, supports the idea of a grief process as the middle “piece” in phase one of the transformative learning process.

Afterwards, I became aware of flocking (Perry, 2018)—an attempt to find safety in the context—as a preconscious behavioral response. I decided to incorporate it into the inceptual felt sense (Gendlin, 1991) experience of a disorienting dilemma. Flocking as a response to the two natural preconscious resources of fear (to inform the body of a threat) and anger (to motivate to action) would represent the felt sense. These three preconscious microprocesses of embodied and the two conscious microprocesses of emotion and intellect would then make up the whole of embodied cognition.

Thus, the emotional dimension of transformative learning would involve a process of grief, including a preconscious sensory (edge-emotions) experience (the beginning), a conscious processing of emotion (the middle), creating a space for resolution (comfort zone) for unlocking the intellectual function (the end) for the subsequent movement to critical reflection. This brought me to the purpose of my research: to generate information from the lived experiences of individuals who self-identified as having recovered from a disorienting dilemma, with the goal of attaining understanding of the constituent elements of embodied cognition, identifying barriers to processing embodied cognition, and finding strategies for eliminating barriers to transformative learning.

Methodological Approach

It is to the initiatory power of phenomena themselves that we should turn for an immediately meaningful context in which to view the emergence of phenomenology.

(Ferguson, 2006, p. 17)

The selection of a methodological approach in a research study fundamentally refers to the systematic process and principles used to guide the research. This process involves a strategy for collecting, analyzing, and interpreting data in a reliable manner. A methodology also ensures

rigor and credibility so the research can be replicated in a way that minimizes bias and subjectivity, supports evidence-based conclusions, and maintains ethical standards (Peoples, 2020). Transparency about every aspect of the research is imperative.

Thus, the unit of analysis for this research was the lived experience of sensemaking and meaning making in the context of disorienting dilemma. The primary objective encompassed exploring “the initiatory power” (Ferguson, 2006, p. 17) of the *preconscious microprocesses* of the felt sense as they served to support or inhibit movement to subsequent *conscious* microprocesses of embodied cognition in transformative learning. This research also explored how microprocesses individually or collectively impact the ability to heal and learn from an experience, by sustaining an “injury” (McDonald, 2016) or lockdown of embodied cognition and the experience of being-in-the-world (Merleau-Ponty, 2013).

A rationale for and discussion of Merleau-Ponty's (2013) philosophical framework is a fitting methodological approach to consider for this research for exploring the “lived” experience of disorientation and embodied states of being. This approach facilitates an ontological positioning in finding meaning, always leading to more questions, and in understanding the deepest subjective meaning of a phenomenon. Furthermore, understanding the “double nature” (Dahlberg & Dahlberg, 2020, p. 891) of holding onto or attending to *what is* while discovering *what else there is*—the figure and ground, what is seen and unseen—requires acknowledging the life experience as a constantly moving object.

Dahlberg and Dahlberg (2020) cautioned researchers to maintain an awareness of this movement in “living” and what presents itself in the moment to the researcher in “direct participation” (Dahlberg, 2006, p. 3) with the participant. This awareness was especially important to this research, as the “lived” experience of disorientation creates challenges and

potential concerns owing to indeterminate factors of historicity and/or the fusion of horizons (Linge, 1973). Fostering awareness involves a keen observation and attention to expressions, gestures, or body language, and the use of follow-up questions to discern a deeper meaning. Additionally, this state of attentiveness extends to considering factors of gender, race, or ethnicity as well, to recognize the influence of marginalizing and oppressive acts on how one acknowledges self and others (Weiss, 2015).

Mezirow's (1978), Mälkki's (2011) transformative learning theories and Kübler-Ross's (1970) theory of grief are then revisited to augment, with new research, the discussions given in the literature review. Following this, a presentation of Gendlin's (1991) theory of embodied understanding and Barrett's (2017) theory of the construction of emotion, found after the literature review, further support the findings of this research.

Following the philosophical and theoretical frameworks, a presentation of the research design includes a description and rationale for the use of a narrative inquiry approach, and the methods used in the research including the recruitment of participants, participant selection, instrumentation and data collection, data analysis, validity and reliability, ethical issues related to issues in the context of trauma (as some disorientation might be traumatic events), findings regarding ethical concerns in researching trauma, an ethical review, and closing summary.

Philosophical Framework

Orienting Phenomenological Theory to Research Practice—Rationale

“Difficult to see. Always in motion is the future.”

—Yoda (*Star Wars: Return of the Jedi*, Marquand, 1983).

The historical paradigmatic shift from the use of solely quantitative research to the incorporation of qualitative research continues to be debated, and although the latter held ground

for well over 30 years (Seidman, 2019), it remains necessary to maintain an integrous responsibility to this type of research. Philosophically, by recognizing the nature of reality and the uniqueness of each individual experience, qualitative research and phenomenological methodologies support Derrida's post-structural positioning (St. Pierre, 2019) and deconstruction of traditional quantitative inquiry with an argument against the possibility of discovering only one true coherent meaning of any certain phenomenon.

Philosophical frameworks are necessary in research because they serve as a lens through which to investigate a life problem. Not all phenomena, like disorientation, are static, nor are they best researched by utilizing pragmatic positivistic empirical research techniques such as the "natural attitude" (Dahlberg & Dahlberg, 2020) of making statements (hypotheses) rather than asking questions. Phenomenological philosophy has the capacity to deal with the nonquantifiable ambiguous data of qualitative research and asks the "radical questions" (Dahlberg & Dahlberg, 2020) of the lived experience.

The goal of this research is to illuminate the essence of the lived experience (Seidman, 2019) of the process of sensemaking and meaning making through embodied cognition, as one transitions through a disorientation dilemma in Phase 1, to Phase 2, self-examination, and eventually to Phase 3. Special attention is given to the constitutive details of negotiating the transition, from the felt sense microprocesses or edge-emotions of fear, anger and flocking, through to the subsequent microprocesses of embodied cognition (emotion, intellect). Knowledge and understanding of "what it is like" (Seidman, 2019, p. 10) to do the essential physiological work of sensemaking and meaning making in the process of transformative learning also allows for the identification of potential barriers to this process.

Phenomenology as a Philosophy—Merleau-Ponty (2013)

When one's knowing or being comes into question and they are opened to a disorienting dilemma, a sensation in response to some object, tangible or intangible, not already instinctively or tacitly understood (Caputo, 2018), begins the first phase of the transformative learning process. In other words, our senses function to alert us of an unfamiliar object or threat. "The sensible is what we grasp and what we may come to understand through our senses" (Merleau-Ponty, 2013, p. 7). Sensing an object as the individual works to understand it as a lived experience, involves several microprocesses of embodied cognition.

Because embodied *consciousness*, or as Merleau-Ponty (2013) and Gendlin (1991) identify it, *sensus comunis*, erroneously overlooked emotion as an integrated function of embodied cognition, the awareness of emotion remained out of *consciousness* for centuries, becoming an unquestionable unknowing. The focus of this research involves bringing to consciousness an understanding of the way whole body (embodied) "*consciousness* grasps an object or event as something, as it is meant" (Vagle, 2018) in a disorienting dilemma and potentially facilitates or interrupts the subsequent transformative learning process.

To facilitate uncovering the physiological resource of embodied cognition, I use the philosophical and phenomenological conceptualizations of Merleau-Ponty (2013) to foreground awareness and understanding of a valuable resource and treasure involved in the formation of knowledge, the felt sense. Phenomenologically, the concept of transformation "can be understood as a pronounced alteration in cognitive-affective orientation" (Maiese, 2017, p. 197) incited by this felt sense. Rethinking, redirecting, and reorienting intracorporeal encounters (embodied interactions) require the use of all natural resources of knowledge and power of

bodies (Ahmed, 2006b; Johnson, 2015) to create new understandings, emancipation, and social transformation through transformative learning (Johnson, 2015).

Merleau-Ponty's (2013) philosophical phenomenology of perception and intercorporeality, is derived from the theoretical frameworks of Husserl's transcendental or descriptive philosophy of phenomenology and Heidegger's (1971) hermeneutic interpretive philosophies (Peoples, 2020). Husserl stated that we have a presuppositional understanding of phenomena, and we must bracket this knowledge to avoid making assumptions with new knowledge. Heidegger (1971) asserted that embodied beings cannot separate themselves from the world; thus, bracketing is impossible, and preconceived knowledge must be "revised" (p. 32) and revisited in a circular process.

Ideally, this circular process, "the hermeneutic circle" (Peoples, 2020, p. 48), requires bridling of (identifying and recording) personal knowledge while interrogating new knowledge to revise or generate a continuous flow of new understandings. These pre-conceptions, being projected upon (interpreted) by the observer and bringing new understanding, resemble Gestalt theoretical concepts of moving from the parts to the whole and back again. As Merleau-Ponty (2013) preferred the authentic qualitative starting point of subjective and objective lived experience rather than the ground-zero approach of positivism (Dahlberg & Dahlberg, 2020), understanding then has no finite beginning or end to knowledge but is a continuing evolution of knowledge and a growing of perspective.

Phenomenology as a form of inquiry and a philosophy maintains an appreciation of the opportunities for enrichment of meaning making at every turn of the research process, increasing the potential for better understanding. This philosophical positioning seeks to understand the "lived experience" of an individual event as a phenomenon of basic structures of behavior, such

as sense making, meaning making, perception, and *consciousness* in understanding the objective world and our subjective intertwining with it (Peoples, 2020).

According to Merleau-Ponty (2013), intentionality, the driving motivation of an “evolving knowing” connects the individuals with the objective world, creating embodied *consciousness* and, thus, an eventual manifestation of a unique lived experience due to the indeterminable number of variables making up one individual life. This lived experience manifests within a “lived body” (Merleau-Ponty, 2013) as it intersects with others or the objective world, sustaining meaning through adaptation. Eventual adaptation to and habitual interaction with others allows “sedimentation” and eventual procedural memory, habitus, or implicit bodily memory, provoking the potential for developing an explicit “intercorporeal memory,” “sensus comunis” (Fuchs, 2016, p. 204), or shared common understanding, fostering social cohesion and effective communication within society.

Theoretical Frameworks

An Evolution and Expansion of Transformative Learning Theory From the Other Side of the Literature Review

Mezirow’s (1978) transformative learning theory, a cognitive developmental theory, explains the development of new frames of reference or meaning perspectives as adults realize their old understandings or assumptions no longer serve them. This research explores at “a more in-depth level” (Taylor, 1997, p. 55) the physiological sensory, emotional, and intellectual nature of the disorienting dilemma in support of Sveinunggaard (1994) findings that “critical reflection can only begin once emotions have been validated and worked through” (as cited in Taylor, 1997, p. 48).

Answering Taylor’s recommendation for future research, this study focused on a “microscopic orientation on particular components that are known to be essential to transformative learning” (as cited in Mezirow, 2000a, p. 318) specifically in the first phase of the transformative learning process—the disorienting dilemma. Findings from this research revealed five microscopic components and identified them as microprocesses of embodied cognition.

Findings also answered Taylor’s request for further research involving the development of an “in-depth component analysis of specific feelings” (as cited in Mezirow, 2000a, p. 318) such as anger, happiness, and shame, by providing a clarification of the use of the term feelings with the experiences of sensation, emotion, and intellect, and offering Kübler-Ross’ (1970) theory of grief for utilization in “the management of emotions during transformative learning” (p. 318). Further, the proposal of a grief process led to addressing Taylor’s (1997) concern about “why some disorienting dilemmas lead to perspective transformation and others do not” (p. 54), as grief is managed differently from one individual to another.

Attention was also given to identifying barriers to critical reflection (Mälkki, 2011) by distinguishing microprocesses responsible for locking down embodied cognition. Primarily, knowledge about these specific microprocesses of embodied cognition (Mälkki & Green, 2014) helped understand the movement through phasic transitions of Mezirow’s theory (Kessler et al., 2009), specifically in phase one to phase two and three.

Finally, findings from this research respond to Taylor’s (1997) concern about the need for fostering transformative learning in the classroom. Rather than focusing primarily on ideal conditions for teaching transformative learning in the classroom, this research promotes not only a thorough discussion of the nature of the disorienting dilemma—the preconscious and conscious microprocesses of embodied cognition—but also a thorough discussion of Kübler-Ross’ (1970)

grief process. This discussion would involve a focus on understanding the *natural* (of nature) negotiation of sensory, emotional, and intellectual functions of embodied cognition as they relate to clearing the path to critical reflection. An understanding that nature provided resources for healing from external life issues, as well as physical conditions, might bring a willingness to sit at the edge of learning, to move through the sensory and emotional experiences of transformation rather than resist, repress, or avoid them.

Supporting this latter finding, a clarification of the little ‘s’ stoic value of—enduring pain without the expression of emotion—with the intention of the big ‘S’ Stoic philosophy of—a reluctant acceptance without protest—might loosen the now unconsciously held, culturally indoctrinated and pejorative view of emotions, identifying some emotions as “negative emotions” and supporting the belief regarding the expression of emotion being a sign of weakness. Learning, in the classroom, on how to release the sensory energy accumulated during a disorienting dilemma would decrease the emotional response and allow for more effective management of remaining emotion.

Revisiting Mezirow’s (1978) and Mälkki’s (2011) Transformative Learning Theories

Every individual is uniquely shaped during development by a myriad of biological, psychological, and sociological factors. In the context of transformative learning, this diversity makes it difficult to formulate a universally concise understanding of the experience of a disorienting dilemma. For the purposes of this research, however, a disorientation is any experience during which a body mobilizes itself first physiologically and eventually cognitively, for the endurance to foster continued growth and development in the face of a contradiction in understanding. Depending on the intensity of the physiological response and the level of

incongruity and subjective understanding to the contradiction, a lockdown of embodied cognition might occur stalling the transformative learning process.

To facilitate development, microprocesses of embodied cognition must be successfully navigated to support the action of enfolding a new frame of reference or understanding into one's existing conceptualization of reality (Lange, 2018). These inceptual visceral physiological experiences of the felt sense involve *preconscious* (pre-emotional) sensory experiences consisting of three microprocesses—fear, anger, and flocking (edge-emotions). The first microprocess elicited by the amygdala (van der Kolk, 2015) is typically identified as fear (concern, being afraid, worry). This microprocess serves as the body's natural alarm system and, during disorientation, is solely responsible for creating awareness of a contradiction or perceived threat. A threat might be an underlying unconscious fear (e.g., loss of a relationship), an inaccurate belief or assumption, or it might involve a personal risk of danger.

The felt sense of fear persists until the second microprocess—anger—activates. Anger then motivates action in response to the threat, as the third microprocess—flocking— an unceasing hyper-focused posture (hypervigilance) and a pigeon-like “bobbing” of the head, sustains an effort to find cues in the context for safety. Research indicates the establishment of a sense of safety (Perry et al., 2018; van der Kolk, 2015) and connection to others (Berger, 2004; Mezirow, 1991; Taylor, 1997, 2000, 2007) can help unlock embodied cognition, allowing the resumption of the transformative learning process. When safety is not secured, the threat persists, maintaining the lockdown of embodied cognition.

In the trauma literature, a lockdown of embodied cognition is described as a freeze response as the felt-sense reactions of fear, anger, and flocking, engage for the purpose of survival. Van der Kolk (2015) used the terms hijacked or stuck to refer to this experience,

Herman (2015) identified it as "the numbing response of surrender (p. 35)," and Maier and Seligman, (2016) referred to it as "learned helplessness" (p. 351). This response is activated by the most primitive evolutionary part of the brain (the reptilian brain), located within the limbic system, connected to the spinal cord at the base of the brain (van der Kolk, 2015). This freeze response represents the vagal system locking down all sensory, emotional, and intellectual functions of embodied cognition, followed by several other physiological changes. This lockdown often generates a dysregulation of the autonomic nervous system and the experience of edge-emotions until action is taken.

If action is taken, which may involve a recognition of some understanding, a decision to respond accordingly, or a fight or flight response and a sense of safety is established, the unlocking of embodied cognition allows a transition within Phase 1, from the *preconscious* microprocesses of embodied cognition—fear, anger, and flocking—to the *conscious* microprocesses of embodied cognition—emotion and intellect.

As fear and anger have been responded to with an action, in the case of an intensely painful disorientation, the fourth microprocess, or the first *conscious* microprocess of embodied cognition—emotion, will emerge and likely involve sadness. Sadness follows as a result of the loss, thwarting, or disappointment triggered by the disorienting dilemma. To effectively utilize the last (fifth) or second *conscious* microprocess—intellect— energy accumulated in the construction of an emotion must be abreacted (released) and processed effectively (Barrett, 2017b).

Depending on the level of emotion, the comfort zone (Mälkki, 2011) becomes a safe haven for homeostasis or regulation and an opportunity to process any residual sensory or emotional energy regarding the loss, thwarting, or disappointment. Conversely, if action is not

taken, an individual may find residence in a comfort zone, in an attempt to “hide out,” or avoid the discomfort of the sensory or emotional processing. Thus, when no action is taken, the individual remains in a freeze response or a lockdown of embodied cognition. As a result, an individual remains stuck in edge-emotions (fear and anger) and can stay on the “edge of their knowing” (Berger, 2004, p. 344), sometimes for many years, even after the threat has passed. Brookfield (1994) spoke to this quandary when he referenced a frustrated participant in his research who stated they would “never get” (p. 58) critical reflection and would rather fall back on old habits than remain in the discomfort of the learning process.

Staying “on the edge of their learning” means an individual is unable to transition from Phase 1 to Phases 2 and 3 of transformative learning. Kessler et al. (2009) reported that although individuals in this locked-down state can access some knowledge, make decisions, act, and feel some control over their situation, more often findings suggest that individuals are unable to identify what they need to move forward. I submit what is needed to move forward is an understanding about the natural purpose of the uncomfortable sensory and emotional experiences of fear and anger, and come to an understanding that a grief process is necessary to release the energy, ease the discomfort, and allow movement to the second and third phases of transformative learning.

Embracing or moving through all sensory and emotional experiences of embodied cognition, due to a disorienting dilemma, brings about physiological regulation (Levine, 2015; Perry et al., 2018) and unlocks embodied cognition. This process, however, may involve sensory or emotional discomfort. Tolerating the discomfort will speed up the healing process and bring closure (Herman, 2015; Levine, 2015). Mälkki (2019) suggested “lingering on,” Berger (2004) encouraged us to “dance on the threshold” (p. 343) or “be at the edge of ... knowing” (p. 344),

Lange (2018) advocated “leap[ing] into a breakthrough” (p. 286), bifurcate the instability, and avoid collapse, and Jung recommended romancing the shadow (Zweig & Wolf, 1997). All roads lead to transformation as “they offer [] access to knowledge” (Mälkki, 2019) otherwise unavailable.

Although the visceral microprocesses of embodied cognition can become barriers to the transformative learning process (Taylor, 1997), when effectively processed, they support successful transformative learning in adult development (Mezirow, 1991). Transformative learning enhances frames of reference and increases a sense of security, empowerment, and self-regard. Moreover, the development of new frames of reference increases one’s capacity to cope with today’s volatile, uncertain, complex, and ambiguous (VUCA) societal environment.

Revisiting Kübler-Ross’s (1970) Theory as It Applies to Transformative Learning

For over four decades in my professional work and more recently in my research, I have observed much conflation involving the use of the word “grief” as an adjective to describe a feeling or as a noun to describe a process. The term grief is often substituted for the feeling of sadness or sorrow, the physical pain of heartache, the intellectual concepts of regret or despair, or generalized as bereavement or mourning. While these descriptions are all appropriate, I offer the following to highlight specifically the potential of *a grief process* as a natural component of the emotional dimension of Mezirow’s (1978) transformative learning theory.

Grief as a feeling is a natural complex emotional and cognitive reaction to loss and, depending on the intensity of the loss, may involve physical, behavioral, or spiritual features. In turn, a grief process involves a series of stages individuals might go through while experiencing any kind of loss, thwarting, or disappointment (Kübler-Ross’s, 1970). I have noticed over time that many believe a grief process is solely associated with death and dying (with trauma more

recently added to this list). I surmise this perception emanated primarily from the title of Kübler-Ross's book—*On Death and Dying*—regarding her findings about the lived experiences of her participants after receiving a terminal medical diagnosis. Hence, I imagine the grief process she researched was readily attributed to death and dying rather than to what the participants thought or how they felt as they moved toward death.

However, many lived experiences other than death and dying can end or be described as terminal, and the process of grief experienced at these times mirrors that of Kübler-Ross's (1970) grief process. These experiences may involve loss, thwarting, or disappointment about assumptions as diverse as not being given permission to do something, finding out that one's kindergarten teacher does not follow them to first grade, or receiving a gift that does not fit. In more transformative types of learning, experiences of loss, thwarting, or disappointment may involve learning that friendships do not always last, assumptions made about family are not always honored by all members, or beliefs about the prospects of life are not always guaranteed.

Kübler-Ross's (1970) grief process involves five stages. Stages 1, 3, and 5—denial, bargaining, and acceptance—are intellectual pursuits and consistently engage in an oscillating negotiation with Stages 2 and 4—anger and depression, the sensory and emotional experiences. Although presented as five linear stages, this grief process might more accurately be described as a scribbly non-linear mess. Though the stages may not occur one at a time, in order, or even be noticed, the process does eventually involve all five stages. The back-and-forth movement from one sensory, emotional, or intellectual experience to another is necessary and makes the completion of the grief process and experience of healing different for everyone.

In transformative learning, experiences of loss, thwarting, and disappointment are considered disorienting dilemmas and identified as stimuli for engaging Phase 1 of the

transformative learning process. Consequently, depending on the importance or physiological intensity of a disorienting event (e.g., loss of keys, a missed opportunity, 9/11), the transformative learning process may be blocked. This block is referred to in this research as a lockdown of embodied cognition.

The first stage of the grief process, denial, parallels or represents the lockdown of embodied cognition in transformative learning. Denial represents the inability, whether conscious or unconscious, to acknowledge or accept the reality of a situation; anger represents a displeasure of some kind about the situation; bargaining represents a continued disavowing or avoidance of the reality of the situation; sadness represents the eventual emotional experience of letting go or saying goodbye; and acceptance represents the eventual acknowledgement of the situation. Acceptance, however, does not necessarily imply the end of grieving. Intellectual processing may continue, regenerating emotional experiences as meaning making continues.

Often, sub- and supra-level terms for experiences like anger or depression are not recognized as correlating with terms used in Kübler-Ross's (1970) grief process, namely anger and depression. Many often represent the terms anger and depression using less or more intense sub- and supra-levels labels. For instance, "irritated" might be used instead of angry, or "melancholy" might be used instead of depressed. This is important to know because many terms used for emotion are considered arbitrary emotional experiences and not necessarily sub- or supra-levels of others. Identifying the sub- or supra-levels of fear, anger or depression, generates a better understanding of what stage of the grief process is being experienced and what work needs to be done to finish the grief process to unlock embodied cognition.

Additionally, minimizing a sensory experience can keep individuals stuck in Stage 2, stalling the processing of anger, to unconsciously or unconsciously avoid the unbearable pain of

Stage 4, sadness/depression. When any level of sensory or emotional energy is resisted, avoided, or not expressed appropriately, the energy builds (Barrett, 2017b), eventually taking a toll on a body physically and breaking down the immune system (van der Kolk, 2015). Respectively, anger might generate an expression of violence and sadness might become depression. This energy must be processed and moved out of the body.

Completing a grief process serves to moderate these physiological experiences and unlock the intellectual functions of cognition. Moreover, unlocking embodied cognition in Phase 1 allows transition to Phases 2 and 3 of the transformative learning process—self-examination and critical reflection (Carter & Nicolaides, 2023)—for a more successful transformative experience.

An incredibly wise mentor once asked me, “To what extent does this language matter in practice?” because “terms like *anger* might not fit everyone’s description of their experience” and “because the grief process is not considered a linear process for everyone.” She was exactly right. With the client’s permission and details changed to protect their identity, I present the following abridged story of their misconstrued understanding of what they were “feeling.”

The client was a 68-year-old Southern Christian woman, sent for counseling by her doctor due to medical issues. She was not pleased about having to come and indicated this by pointing her finger to the ceiling and stating that she had a counselor. As she regarded doctors as all-knowing, and second to God in authority she complied.

I asked her the typical questions at first, and then I asked her how her 47-year relationship with her husband was going. She stated, “he makes me upset from time to time; however, he is a good man, provider, and Christian.” Given she grew up in the 1930s, I

wondered if she was affected by agrarian era values, stoic values, Christian values, or all of the above.

I knew I only had one chance with this client, so after talking with her, I asked her if she wanted to come back and told her if she did, I'd give her an assignment for homework. I was surprised when she said yes, and accepted the assignment (although I was sure she would not return). I asked her to write something I call a "blow-out letter" that would be for her eyes only. I gave her the directions and assured her she would not share this with me, her husband, or anyone else.

To my surprise, she returned with a 27-page letter and an awareness that she was more upset with her husband than she realized. When I asked her what other word might better describe her feeling, she stated, "Furious." We talked about how cultural values teach us to minimize or ignore our feelings, causing the energy created by them to stay stored in our bodies and grow over time. She immediately acknowledged that her Southern and Christian background certainly supported this idea. We also decided that whatever level of energy she was ignoring and storing was certainly a culprit in her now high blood pressure and her desire to "snack" more often.

My work involves helping others acknowledge and process (sit in) sensory and emotional energy effectively, whether with me or on their own (when appropriate), to release the energy from the body. I need to not only be aware of the values they hold and how these have affected their ability to experience emotion, but also to make sure they are identifying them accurately so they can sit in them effectively, not just talk about them.

The Theory of Embodied Understanding—Gendlin (1991)

Gendlin's (1991) theory of embodied understanding and Barrett's (2017a) theory of constructed emotion are important for understanding the constituent parts and processes involved in embodied cognition. I begin with a discussion of Gendlin's (1991) theory, as it explains the lockdown of embodied cognition when encountering a disorienting dilemma, proffering insights into *unlocking* disembodied cognition.

Gendlin's (1964) theory of personality change stipulates that traumatic events are not forgotten; instead, they are stopped before they can be experienced (supporting the avoidance of and movement to a comfort zone that can last long after the event). The "felt-sense," according to Gendlin (1991), refers to the sensory experience occurring just prior to embodied *consciousness*—the connection of self to self and to others—or being-in-the-world (Merleau-Ponty, 2013) in response to anything in the world, activating the subsequent sensory experience of emotion. Understanding this preliminary microprocess is particularly important because stopping/avoiding it can become a barrier to movement through edge-emotion, interrupting the processing of emotion in the transformative learning process.

This felt-sense experience, the "core of Being" (Gendlin, 1991, p. 257) or the lived experience, can ultimately be expanded as a living interaction of knowing, occurring just prior to abstract knowledge identification, and can be compared to Merleau-Ponty's (2013) concept of "sense datum" (p.167)—the way the body knows or understands, without the need to process thought, as it has essentially become an unconscious habit of linking sensations to behaviors. In other words, this resource, as a sensory experience, has evolved over time in the body to inform the body of an opportunity for learning or danger.

Gendlin's (1991) concept of "sentience" (p. 256) relates to the sensory interaction with the environment that creates a knowing, such as "embodied *consciousness*" (Merleau-Ponty, 2013, p. 163)—a continuously forming structure of awareness of self within the world and the world within the self, without any defining separation. In other words, the felt sense precedes an integrated intellectual and emotional connection between the body and the world that, with the indeterminable factors of an individual's unique experiences, eventually creates a unique perception of what is.

"Bodily sentience," according to Gendlin (1991), refers to the motivating force (anger) of the felt sense, "is-for a next move" (p. 258), and, as Merleau-Ponty's (2013) "intentionality," implies movement or a subtle "relating to" (p. 450) the object. In other words, sentience refers to having the capacity for subjective experiences, sensations, and emotions, it does not imply an actual physical movement toward an object but further engagement with the object as it is already known as it was. In turn, all beings continue to evolve as they move through experiences. Never is one experience the same as another. Any connection with another brings a new (movement to) evolvment of knowing, of "being-with" another, not necessarily an intellectual understanding.

Gendlin's (1991) "bodily implying" (p. 257) relates to Merleau-Ponty's (2013) "protention and retention" (p. 487), the back-and-forth movements, as in "flocking" (Perry, 2018, p. 823). According to Perry (2018), flocking is a pre-fight/flight/freeze "tuned in to other" response occurring neurobiologically, continually monitoring the other and the context, in search of cues for safety or meaning. For Gendlin (1991) and Merleau-Ponty (2013), these movements refer to the folding into of what is, with what is next. In other words, each refers to an evolving "knowing."

Bodily implying, protention and retention, and flocking are important concepts because *at* these moments in a lived experience, one has the potential to connect with others (Ahmed, 2006b; Gendlin, 1991; van der Kolk, 2015). Connection to any object of safety facilitates a return to the self, to the subjective experience, and to being-in-the-world (Gendlin, 1991; Merleau-Ponty, 2013). When the felt sense locks down all sensory, emotional, and intellectual experiences, this impedes one's ability to make sense of any object. Sensory or emotional energy "sticks" (Ahmed, 2004, p. 8) to the object being apprehended, and the subject becomes "stuck" (Perry, 2021; Taylor, 1997, as cited in Mezirow 2000, 2007; van der Kolk, 2015, p. 11). Thus, the inability to make sense, learn, or come to a knowing about an object obstructs opportunities for connection and learning.

The stuck being is unable to orient in any direction, as they are "stopped [by fear] producing, we could say, disorienting effects, [affecting] what objects are reachable" (Ahmed, 2006a, p. 23). Thus, this lockdown creates a disconnect, making it difficult to (re-)orient to what is "ready-to-hand" (p. 47), what is available to create safety. Flocking then becomes an attempt to make a connection to any object to return the self to the subjective experience and to being-in-the-world. If a Being/Dasein (Peoples, 2020) is not

in-the-world, is it possible to ever apprehend an object? Does intentionality become impeded as well? In the disorientation of locked down embodied cognition, is it possible to bond with any object? Are we, when disoriented, as Heidegger holds, "always in the world and unable to separate [dissociate] from an object" [our emotional energy is "stuck" to?]" (p. 32).

Emotion is considered an "all-inclusive" (Gendlin, 1991, p. 261) movement to *conscious* interactional sentience with the context, much like Merleau-Ponty's concept of "inter-

corporeality” (as cited in Fuchs, 2016, p. 195) is understood as a form of embodied intersubjectivity. As with Barrett’s (2017a) theory, emotions are sourced from the wide context; however, when something in the context becomes a threat (i.e., an object of focus), emotion narrows to that object (Ahmed, 2006b). It becomes, in other words, the physiological “lived experience” in any one interaction with an external object.

“Sentient totaling” (Gendlin, 1991) is the physiological representation of sensemaking, bringing the past sensory information into the present to understand and continue a negotiation for a response or reaction in the future. Barrett’s (2017a) concept of organizing sensory information (interoceptive summaries) to make a “prediction” based on historical knowing aligns with Gendlin’s (1991) notion of bringing the past forward to understand the present. Gadamer’s (2013) concepts of the hermeneutic circle and fusion of horizons, also correlate with this idea of bringing together all information gathered or experienced in knowing—past, present, and future—creating a new perception or an evolved knowing that will continue to evolve in future experiences.

In summary, the felt sense (sentience/embodied *consciousness*), naturally and phenomenologically triggered by the amygdala, fuels (through bodily sentience/intentionality/motivation) the natural process of learning by triggering edge-emotion (fear/anger) and taking an individual to a physiological state of disequilibrium and disconnection (bodily implying/protection and retention/flocking) to emotion (all-inclusive interactional sentience with the context), and to a comfort zone. When an individual moves to or seeks refuge from edge-emotion by moving to a comfort zone, this implies a state of avoidance (of inner datum/lived experience) and a disorientation from a straight line.

Theory of Constructed Emotion—Barrett (2017a)

Barrett's (2017a) theory involves the construction of emotion and corresponds with the constituent parts of embodied cognition while maintaining a focus on embodiment. The theory proposes three features of constructed emotion: "affective realism [an experience of conceptualizing the world created, in part, by emotion], concepts [organized physiological summaries of the body's previous experiences], and social reality [the influence of culture]" (p. 283). Previous research on emotion has focused on essentialism, or identifying specific areas or functions of the brain responsible for eliciting emotion in response to an external stimulus, to define an objective reality. The theory of constructed emotion instead maintains that emotion is an embodied physiological experience of integrated sensory information from body and world, preparing the body for an experience.

According to this constructivist theory (Barrett, 2017b), sensory information received and organized by various parts of the brain into concepts or categories become "summary representations" (p. 3) or "interoceptive summaries" (p. 9), or simply an abstract conceptualization of affect or emotion (p. 6) informing the body of a new experience. These summaries generate "predictive coding" (p. 7) of what is likely to happen and the best action to maintain stabilization of the whole-body system. In other words, a noise creating a sensory experience provokes a sensory review of previously stored cultural knowledge already collected in the body, to make a prediction and create an affect or emotion, informing the system to prepare for the experience. These are embodied experiences with the world, "not reactions to it" (Barrett, 2017b, p. 16).

Important to any discussion of transformative learning theory is Barrett's (2017b) concept of "prediction error" (p. 11), caused by "unanticipated information from the world" (p.

7). The experience of receiving unexpected information from the world and being incapable of organizing interoceptive predictions succinctly defines a “disorienting dilemma” and what Gendlin (1991) called “the felt sense” (p. 256). Gendlin (1992) considered this the body’s natural wholistic experience of focusing inward and engaging all physiological resources available in identifying a solution to a problem. This re-orientes the body to a sense of “rightness” and “silence” (p. 451) as it becomes aware of being on the right path.

A prediction error or disorienting dilemma has the potential to lock down embodied cognition, becoming a barrier to transformative learning. Barrett (2017b) described this event as an unknowing of sorts, creating an uncomfortable affect or emotion while the system attempts to identify an appropriate action. The disorientation due to a prediction error will attempt to bring to *conscious* awareness, via a combination of (a) a concept, or historical “simulation” (p. 5) image or perception of the experience, (b) a “commotion of [sensory] noise” (Barrett, 2017a, p. 29) otherwise recognized as anxiety (due to non-action), or (c) a constructed internal integration of internal sensations (interoception) *with* external sensory experiences (exteroception) from the world, to form an “instance of emotion” (p. 30) for meaning making.

The affect (atmosphere of energy) derived from the integrated processing of interoception and exteroception transmutes into an embodied *pre-meaning making process* identified as emotion. This meaning making is powered by a grief process, as described by Kübler-Ross (1970), as regulation requires the acknowledgement of a loss, thwarting, or disappointment regarding what is and what was thought to be. Making meaning of or processing emotion becomes essential to unlocking intellectual functions necessary (van der Kolk, 2015) for Phases 2 and 3 of the transformative learning process, that is, self-examination and critical reflection.

Human development requires a continuous negotiation of loss of old self (assumptions, beliefs, meanings) with the new, as the rational and the emotional struggle to cope with the threat of re-orienting the embodied system of self and world (Kegan et al., 1982). Mezirow's (1991) metaphorical description in 1985 of Keane's analysis of the second phase of transcendent transformation is useful in portraying this as a grief process; the phase is necessary to "sweat out a waiting period of the nonrational—intuitive, spiritual, emotional—in order to become congruent with the rational once again" (p. 179). The concept of "commotion of [sensory] noise" (Barrett, 2017a, p. 29), or processing of uncomfortable emotional and intellectual energy, aptly supports the idea of a grief process (or "sweating out") in Phase 1 of the transformative learning process.

The Research Design

Narrative Inquiry

Narrative inquiry as a qualitative research methodology, serves as an appropriate approach to understanding the human experience. By utilizing the participants perspectives, emotions, and the context of their stories, narrative inquiry supports capturing the intricacies of the subjective lived experience of sensemaking and meaning making. For this research identifying the microprocesses of embodied cognition was essential to understanding how they become barriers to transformative learning.

Bruner (1985) speaks to a paradigmatic-type narrative inquiry versus a narrative-type narrative. The paradigmatic approach gathers stories primarily for gathering data to draw meaningful insights and patterns from the common elements across the collective experiences of the participants. The narrative-type narrative combines the data to create "emplotted" stories (Polkinghorne, 1995, pl 6). Paradigmatic inquiry is employed in this research to collect data to

support identification of the microprocesses of embodied cognition and collective experiences to support a pattern of experience leading to the lock down of embodied cognition. Special attention is given to the patterns of negotiating the transition, from the *preconscious* felt sense microprocesses or edge-emotions of fear, anger and flocking, through to the subsequent *conscious* microprocesses of emotion and intellect by observing and attending to expressions, gestures, body language, and diction.

I offered each participant the option of writing a narrative about their disorienting dilemma for each interview or preparing a creative portrayal of some kind to facilitate their ability to remember details about their experience. The first narrative was meant to be a straightforward documentation of what happened—the who, what, where, when, and how, as if written for a newspaper article. For the second narrative, I asked the participant to add sensory, emotional, and intellectual experiences.

Written narratives are helpful for individuals who have experienced a disorienting dilemma because the sensory experiences are sometimes still too raw and can interfere with thinking (Pennebaker, 1997). Through a narrative, they have a script, of sorts, to help them retrieve their thoughts if those sensory experiences begin to interfere. Narratives allow an opportunity for understanding the external world, while also creating an opportunity to gain self-understanding as one shares their lived experience with others (McDonald, 2016).

Participant Recruitment

An application was submitted to and approved by the Institutional Review Board (IRB) for this research. An institution-wide email was sent to graduate students and resulted in the recruitment of six participants (van Manen, 1990). Respondents were asked to attend a preliminary telephone screening during which inclusion and exclusion criteria were used to

determine if they were appropriate for the study. When accepted, participants received a confirmation email with a copy of the IRB consent form, informing them again of the purpose of the study; the study procedures, including the number and length of interviews; information regarding risks, discomforts, and access to professional help if necessary; information regarding the discussion of disorienting or traumatic experiences, privacy/confidentiality protections, use of pseudonyms, personal information, audio recordings, data storage and disposal, assurance of voluntary participation, and benefits; information regarding the use of no treatments, therapeutic processes, or interventions; the incentives for participation; information regarding the researcher's and the IRB's contact information for post-interview questions about research, support, or rights; and a signature line for the interviewee to confirm consent. I requested that each participant choose a date and site for the first interview. Each participant identified for themselves a pseudonym, and once the consent forms were signed, I returned a copy to them for their records.

If a participant was determined inappropriate for the study, I called them rather than inform them by email, to manage the possibility of a negative reaction and giving them the opportunity to raise questions or concerns.

Participant Selection

The selection of participants occurred over an 8-month period (i.e., spring and summer semesters). I selected six participants out of eight with a recruitment letter and snowball sampling (Peoples, 2020). These six participants included five cisgender females and one male who considers himself gender-fluid. All six were White, considered themselves American, though they expressed that their generational history was important. Four participants held

positions in administration; one was a blue-collar worker; and one was retired. Participants ranged in age from 46–56 years old.

During the selection process, two participants were deemed inappropriate for the study. One was difficult to maintain a consistent connection with and unable to participate in the preliminary telephone call; the second was an employee of the department in which I am a student. Their personal information might have been recognized regardless of efforts to disguise their identity. Snowball sampling was utilized after two attempts with the recruitment letter because only eight participants responded to the letter and two of these was deemed inappropriate. The snowball approach allowed for recruitment of participants by way of recommendations from others. The snowball approach brought a recommendation for the sixth participant, who had recently experienced a serious accident. During the prescreening call, the description of her disorienting experience was so fresh, I felt she would make a fitting participant for this study. I secured permission and received approval from my major professor to include her as a participant.

The first engagement involved making a phone call to each participant to complete a prescreening, using the inclusion and exclusion criteria, to determine if they were appropriate for the study. Criteria for inclusion in the study, included living in the state of Georgia, currently enrolled in graduate school or having graduated from a graduate school or institution of higher education, having experienced an acute (single-episode) or chronic (long-term exposure) of a disorienting dilemma (varied or multiple types), self-identifying as having processed disorienting dilemmas or traumatic experiences in treatment (traditional therapy, EMDR, sensorimotor psychotherapy, etc.), and having available resources for aftercare or willingness to accept information regarding such if needed.

Exclusion criteria included this being their first experience of disclosure of their disorienting dilemma experience, disclosure of risks for self-harm, suicide, and violence, disclosure of depressive or dissociative symptoms, sleep disturbances, and intrusive experiences, or disclosure of psychosis, substance abuse and dependence, or bipolar disorder. There were no exclusions based on a particular gender or minority group. There were no incentives offered to participants other than understanding that the knowledge gleaned from this study may inevitably help increase successful adult learning and emotional well-being.

During each interview, I offered Kleenex, a bottle of water, and information about psychological resources at the college medical center, should they be needed. I read or asked the participant to read the consent form one last time to make sure there were no questions. I also asked for their pseudonym once more to maintain accuracy. I brought two copies of the IRB consent form and asked them to sign both. I signed both as well and asked them to keep a copy for themselves. I placed my copy in the file folder I created for each participant. I also asked again if there were any last-minute questions. When they were ready, I started the recorder and, using the interview guide, I began the interview.

Instrumentation and Data Collection

I conducted two semi-structured interviews with each participant and contacted them a month after the interviews, by phone, to ask them about their experience in the study. The data I analyzed came from these interviews and phone calls. Since a lived experience involves a phenomenological positioning (van Manen, 2017, p. 813), I listened reflectively for “what show[ed] itself in itself” (van Manen, 2020, p. 487) or “was given” up (van Manen, 2017, p. 811) by the participant about the lived experience of the felt sense “to bring into focus with language

any such raw moment” (p. 812) of disorientation to understand “what this primal experience is like” (p. 811).

During each interview, I made notes about questions I had and then asked these after the participant’s review of the event. I made additional notes after the interview about descriptive and reflective thoughts, emotions, wonderments, and questions. Transcription US transcribed the recordings of each interview. Upon receipt, I immediately reviewed the transcripts while listening to the recording. I chose not to “clean up” the transcriptions completely, specifically when intellectual intrusions and emotional eruptions occurred, as this was necessary to maintain the authenticity of the physiological experience.

I reviewed the transcripts twice, the first time identifying and color-coding the following concepts: behavioral expressions of emotion, realization, sensemaking, knowing, not knowing, looking for support/validation, questioning self, masking, new insights during interview, emotion, rising of emotion effecting intellect, and evidence of indoctrination. Making the process “highly iterative” by involving the “repeated process of analytic actions” (Locke et al., 2022, p. 263), I performed a second run “with fresh eyes” (Finlay, 2012, p. 176) for units of analysis to empirically support my findings. Each time I reviewed a transcript, I made additional notes and identified questions I might ask a month after the second interview.

On the second run, I focused more on the phenomenon of the lived experience of the initiatory power of the felt sense, and movement through the emotional and intellectual functions of embodied cognition. I identified portions of statements or “units of significance” (Sadala & Adorno, 2001, as cited in Groenewald, 2004) that seemed to represent the core microprocesses. This list included identification of a disorienting dilemma, the felt sense experiences of fear, anger, or flocking (edge-emotions), indications of a lock down of embodied cognition,

indications of emotion (e.g., sadness), evidence of landing in a comfort zone (to process or avoid emotion), reconnection (to self and others), intellectual processing, transformative learning, and questions.

Data Analysis

The unit of analysis for this study was the lived experience of sensemaking and meaning making through embodied cognition in the context of a disorienting dilemma. The lived experience of embodied cognition includes three *preconscious* and two *conscious* physiological microprocesses. The felt sense initiates the sensory experiences of the edge-emotions of fear, anger, and flocking, followed by the emotional and intellectual functions of cognition. Any one of these microprocesses has the potential to lock down embodied cognition, impeding the process of transformative learning. The research question for this study centered on understanding the lived experience of movement through these constituent parts of embodied cognition.

For this study, I chose to use narrative inquiry, as defined and distinguished by Caine et al., (2013), as it focuses more on the organization of knowledge than the processing of data and seemed to align best with the ontological positioning of my research. Narrative inquiry supports efforts to understand the *nature* of understanding and how meaning is formed as a relational experience, while maintaining a “sensitivity to the conditions around which we become with each other” (Caine, 2013, p. 580).

The narratives about disorienting dilemmas in this study were sometimes difficult to listen to, and Caine urged researchers to “dwell ... alongside” participants to “represent” rather than “tame, sanitize, or analyze” their narratives (p. 581). This was my experience throughout this research as I followed my instincts. Considering my professional background involves

listening to my clients to find meaning, this approach helped me maintain this positioning during the interviews, reminding me to inquire, to ask, not attempt to decide what meaning I think someone's statements might have.

I “played,” a Gadamerian term (Moules, 2015, p. 42) with each of the thinking approaches—abductive, inductive, deductive, and narrative inquiry—to experiment with reviewing the data several times, to follow phenomena “in search of ‘threads’” (Freeman, 2017, p. 8), concepts, or phrases that addressed me, to understand the phenomena of the felt sense and subsequent microprocesses of embodied cognition. During my analysis, I tried to identify spoken concepts or conceptualizations that might relate to the felt sense and each of the physiological experiences of cognition (sensory, emotional, or intellectual) to enhance any revisions to my understanding.

Although narrative inquiry research requires primarily interpretive thinking, I acknowledge at times I leaned toward abductive thinking as I sought to enhance two theoretical perspectives with my research—Mezirow's (1978) and Mälkki's (2011) transformative learning theory and Kübler-Ross's (1970) theory of grief—by proposing a grief process as a component of the emotional dimension of the transformative learning process. Gendlin's (1991) and Barrett's (2017a) theories, served to support an ontological positioning of this research as it focuses on the embodied experience of a being-in-the-world.

Being “addressed by,” a hermeneutic concept, meaning being caught me off guard by statements I did not understand, or with which I might have experienced the felt sense, helped me identify questions. I was able to identify specific incidents of sensory, emotional, and intellectual experiences discussed by participants by noticing “tells” (e.g., coughs, nervous laughter, use of “you know”), identifying times when the participants might have experienced

sensory or emotional energy (in the body) rising up or used their intellect (stayed in their head) to avoid a sensory experience.

What struck me most was that I remained captive to my experience and awareness of my own felt sense *during* each interview and how I was sometimes unable to “let go of” statements that rambled about in my mind as I first heard them but did not understand them. I might have had a knowing of similar understandings, or sensory or emotional understandings, or I may have even had the potential to imagine; however, my felt sense was a continued physiological experience of “grasping” for more understanding. Thus, as Lens Taguchi and Palmer (2013) described,

instead of thinking about a world of physical stable objects out there and language and concepts to represent the meaning of these bodies, it is phenomena, as an ongoing process of mutual intelligible making of matter and meaning, that are constitutive of reality (p. 673).

This demonstrated that I was already “dwelling” in their narratives and that the felt sense, which preserves personal historical physiological meaning, becomes the initiator of meaning making when two conceptualizations collide, entangling perceptions and understandings. It simply brought my attention to a new understanding.

Validity and Reliability

Validity and reliability in qualitative research are of utmost importance—and are a topic of ongoing debate. If the goal of any research is primarily to gain knowledge, then it must be recognized that collecting knowledge is at the heart of qualitative research and that finding an exact truth is an ontological impossibility. Seidman (2019) stated, “The goal of the process is to understand how participants understand and make meaning of their experience;” it is not to find

an absolute truth. Thus, the re-constitution of a subjective experience, through language, inevitably creates a more sophisticated awareness that advances knowledge. Given the intersubjective activity occurring during any interview, the potential for what “more” (Todres, 2004, p. 48) can be learned becomes more important than a probability.

Dahlberg (2006) spoke to the need for remaining open in research, "open to embodied, embedded knowledge" (p. 3) and "let[ting] the ... phenomenon [of the lived experience] present itself more fully" (Dahlberg & Dahlberg, 2020, p. 893). Context can be especially important (as the background) and affect how a phenomenon is perceived. In her research, Dahlberg (2006) regarding attending “a violent encounter” with a patient, she became aware of a dualistic meaning of a “patient’s fragility” (p. 4). She came to realize the patient’s aggressive behavior was about a desire for and expectation of care, rather than a spontaneous inappropriate reaction without reason.

Using this as an example, existential fragility suggests a weak sense of connection to the world. This individual’s act of aggression in wanting to receive care indicates a strength in wanting *to* self-care. She was also motivated and had the strength to fight for what she desired (rather than flee or freeze). A fight response is a natural response when an individual has an expectation of receiving care at a facility whose main function is to provide care, but that care is not being provided. It is unclear whose definition of violence was used in this context; however, any word has the potential to have different meanings for different individuals in different contexts.

To characterize this patient's reaction as “violent” may have been an inaccurate observation. As beings-in-the-world who desire connections to others and the world, not sensing a connection created a threat to the woman, resulting in a sense of fear (alarm). Fear eventually

manifests in the motivating *sensory* experience of anger, thus inciting a corresponding behavior. Might this incident have been instead a Fearful (of not having a connection) encounter in psychiatric care?

Since “there is no certain or objective objective” (Dahlberg & Dahlberg, 2020, p. 890), Gadamer (2013) contended we must understand that each individual's experience with the world with each of their own unique understandings (Caputo, 2018, p. 81) is important. This positioning requires a close yet distant and open intersubjective relationship to the other-in-the-world. Optimistically, these theoretical philosophies and research methods support an embodied research environment allowing a participant and researcher, in reflection, to come to a completely new understanding of their being-in-the-world. Listening intently, asking for elaboration from the participants, and exercising persistent reflexivity by taking notes, memoing, and maintaining a journal during and after the interviews served as methodological tools for this research and were crucial to maintaining an open posture during the interviews (Dahlberg & Dahlberg, 2020; Mälkki & Green, 2016; Mezirow, 2000a; Pillow, 2003; Vagle, 2018).

How the researcher interprets the words used by the participant is critical to revealing and recording a "lived" experience. Merleau-Ponty suggests a “flesh[y]” (as cited in Dahlberg, 2006, p. 7) connection to others and the world, while Peoples (2020) suggest maintaining a social positioning or cultural/worldly awareness, specifically of “linguistics” (p. 6). My experience with living with Mexican and Italian families for significant periods of time and speaking a foreign language, Spanish, provides an awareness of nuances regarding the selection or use of words as participants attempted to communicate. Moreover, forty plus years of talking with clients increases an awareness of how words are used to explain experience, and how indoctrinated sociocultural meanings can affect the meaning of a statement.

The use of language to symbolize and reconstruct experience was at the heart of this research. The philosophy of hermeneutics advocates that attention be paid to the interpretation of the words used within the context of the interview regarding experiences that took place in a different context, a previous historical context, and/or previous stage of physical development. Disentangling meaning was an especially important pursuit of this research. Acquiring a contextual history and honoring the storyteller was also of prominent importance. Notably, however, the interviewer's subjectivity, although acknowledged and bridled (Dahlberg, 2006) always melds into the meaning-making process; affirming this can help keep any bias in check or at least identified. Dahlberg (2006) suggested bridling "the evolving understanding" (p. 6) so that the research collected is about what is learned solely from the participant, not what the interviewer projects upon it.

Individuals are capable of and often participate in connecting with others on an intimate level of knowing, sometimes beyond words and beyond meaning. This practice is what Gendlin (1969) called "focusing" and, according to Todres (2004), "honours the embodied nature" (p. 48) of meaning making as a construction of analytical experience, as well as a sensory and emotional experience, grounded in the microprocesses of embodied cognition.

Measuring the consistency of the data collection process across all participants supported the question of validity and reliability. This consistency was maintained by identifying the context of the experience, length of interviews, an accounting for overtime, and possible unusual circumstances, and by using all participants to make general correlations. Given the intensity of the topic, any emotional content was taken into careful consideration and managed respectfully by the researcher.

Ethical Issues Related to Research in the Context of Trauma

The complexity of preparing a safe research environment for individuals who self-identify as having experienced disorienting dilemmas necessitates understanding what defines a disorienting dilemma, recovery from this experience and how this recovery occurs. Additionally, since most of the participants identified what might be considered traumas, examples might have been included in the recruitment letter to differentiate a disorienting dilemma from a trauma, although they are both sometimes interchangeable.

The unique interaction of any one individual's biological, psychological, and sociological factors in any one experience makes it difficult to determine an exact definition of disorienting dilemma or trauma; however, for this research, a disorienting dilemma was conceptualized as any experience requiring an individual to immobilize themselves physiologically for an adaptation to a new experience, or move into a "freeze" response, inciting the lock down of embodied cognition.

The concept of indeterminacy asks us to consider the countless possibilities of being effected by a number of variables all intertwining to design completely distinct and unique individuals who perceive and understand an experience of a disorienting dilemma differently from others. Specifically, cultural awareness, understanding, and acknowledgement of disorientation can also affect how a dilemma is defined. Western culture tends to unconsciously undermine the experience of trauma (Herman, 2015; Newman et al., 2006; van der Kolk, 2015), creating the potential for "invisible survivors" (Newman et al., 2006, p. 31), that is, individuals who do not realize they have been disoriented or traumatized.

These and other factors indicate there is no conceivable way to know how to provide complete emotional protective coverage in any research study, much less one involving

participants who have experienced a disorienting dilemma (or trauma). The potential for an unexpected stress reaction during the study is possible, and only “best practice” and ensuring professional coverage is available, is expected should the questions evoke a sensory experience causing possible a negative reaction or re-traumatization.

In this research, written narratives provided additional safeguards to help prevent this re-triggering. First, during the prescreening, participants were informed of the use of narrative inquiry and semi-structured interviews as “a basic mode of inquiry” (Seidman, 2019, p. 8) to bring coherence through language to an otherwise indeterminate and subjective phenomenon. Generally, this method reduces the potential for bringing difficult emotions to the surface since the act of writing of the narrative allows for the release of emotion. Additionally, the interviewer makes certain, by presenting and reviewing the consent form, that participants understand their right to take a break, stall, or stop and end the interview at any time.

Findings Regarding Ethical Concerns in Researching Trauma

Given the preceding concerns, while conducting a study with individuals who have experienced severe disorienting dilemmas (or trauma), the researcher must strive for a higher standard than "best practice." Primarily, the method of recruitment, training of the investigator, and the nature of the research experience can pose ethical issues. Therefore, it is important to consider researcher bias and ensure ethical decision making to protect participants and to create the opportunity for a positive cost-benefit ratio. Reviewing previous studies on ethical research in trauma helped create awareness and understanding of such ethical concerns.

Newman et al. (2006) highlighted specific research-related ethical issues, including assuring the collection of comprehensive information in recruiting participants, considering participants' vulnerability in making choices or decisions, avoiding the invasion of boundaries,

identifying individual developmental concerns, discerning potential areas of discrimination, creating an environment of safety (from others external to the study), bearing in mind the need to use deception methodologies, understanding and maintaining an awareness of "invisible survivors" (individuals who do not realize they have been traumatized or do not consider their experience traumatic), calculating the burden of the research on participants experiencing a large-scale trauma, such as a natural or national event, and recognizing participants' ability to use coping skills and value self-care.

As a licensed professional counselor with 20 years of experience working with individuals in various facilities and 25 years in private practice, I have learned the skills necessary for attending to the issues raised in Newman et al.'s (2006) research. Additionally, I received a significant amount of therapy for my own trauma experience, allowing me to understand, respect, and appreciate the experience of a disorienting dilemma, trauma, or the experience of therapy, and to maintain an awareness of my biases. Additionally, Newman et al. (2006) reported that evidence has shown that the ability to decide to participate in research is not compromised for individuals who have experienced trauma (p. 38). In this study, the prescreening process aided in the selection of participants who could decide to participate in the research by communicating their understanding of the research, their history of treatment, and their rationale for deciding to participate.

According to Newman et al. (2006), most participants, given a summary of the research and a review of potential ethical issues, reported positive benefits from their experience, with a small percentage (typically single digit) reporting negative experiences. Although Newman et al. advocated for more research on ethical issues in trauma, especially in attaining more precise

information about reports of negative experiences, current reports of negative experiences are still extremely low.

Ethical Review

In compliance with the policies of the IRB, all ethical concerns and regulations were followed. A review application form, letter of consent, and interview guide were filed prior to starting the research project, and the study was approved by the IRB. An informed consent form reviewed with participants, addressed confidentiality, rights, risks and benefit, and the voluntary nature of the study. To maintain confidentiality, participants were asked to identify a pseudonym for themselves to be used in reporting the results of the study. Additionally, all study data, interview recordings, and transcripts were accessible only by the principal investigator and co-investigator and destroyed when officially appropriate.

Closing Summary

The purpose, problem, research questions, subjectivities statement and selection of topic opened this chapter. These were followed by the methodology for the research, including an orientation of phenomenological theory to research practice and the philosophical framework of Merleau-Ponty (2013) to support a narrative study. An elaboration on the transformative learning theories was presented, exploring new dimensions revealed by recent research. Two new theoretical frameworks were then introduced, Gendlin's (1991) theory of understanding and Barrett's (2017) theory of the construction of emotion. The components of the research design were presented next, including the processes for recruitment and selection of participants, instrumentation, data collection, and data analysis. The chapter concluded with a discussion of limitations, validity, reliability, essential ethical issues, research findings about using participants

who have experienced trauma in research, and a statement ensuring that my research followed the policies and procedures required by Institutional Research Board.

CHAPTER 4

FINDINGS

Before reading the following narratives, I would like to inform the reader of five factors to consider about the context of these stories. First, according to Damasio (1999), the felt sense is responsible for allostasis (adaptation of the physiological system *preconsciously*) for the regulation of the internal environment *prior to perception* (Barrett, 2017b). Emotion is responsible for homeostasis (the maintenance of a balanced physiological system) once images or perceptions are generated by the felt sense. Therefore, it is important to keep “clearly in mind” (van Manen, 2023, p. 316) that the felt sense is the *preconscious* “lived experience” of the body/mind’s knowing, before the body/mind *consciously* knows (Merleau-Ponty, 2013).

Second, edge-emotions (Mälkki, 2011) are the pre-reflective *preconscious* sensory experiences of *fear* and *anger* produced through interoceptive activity to inform consciousness of a threat and motivate a response for action. When an action is not taken to eliminate the threat, *fear* will continue to inform via *terror, angst, or worry* or some other sub- and supra-level classifications, and anger will continue to motivate via *frustration, irritation, aggravation, rage* or some other level of this sensory experience. Anxiety is best represented as an oscillating experience of being informed of a threat and being motivated to action, however no action is taken, and the cycle continues as fear is re-activated. As antagonists, these edge-emotions can lock down embodied cognition.

Third, during disorientation, an *action* (the compulsion of anger), a response to a threat bringing a sense of safety, can unlock embodied cognition. Unlocking embodied cognition brings

to *consciousness* the microprocess of emotion. In disorientation, the emotion of sadness generally supports the processing of any loss, thwarting, or disappointment. This processing allows healing and supports the embodied functions of emotion and intellect to continue to operate to their potential in the transformative learning process.

A lock down of embodied cognition, depending on the level of intensity of the disorienting dilemma, can occur when *action* is not taken, or the felt sense experiences are resisted. During an act of resistance, avoidance, or denial (the inability to accept intellectually the reality of what is), participants may defocus from any rising sensory or emotional experience coming up in the body by:

- *unconsciously* moving to intellectualize (to avoid a sensory or emotional experience by keeping a focus on the intellectual properties of the experience), or
- rationalizing (justify or find reasons to minimize an experience or make something seem reasonable, especially when it is not so), or
- using *paralinguistic cues* (hesitation markers of speech such as “you know,” “um,” or repetition of a word “I, I, I,” or statement to maintain an intellectual stance; *silence*—an attempt to not think further about what may be coming to mind, *metaphors*—a “cognitive distortion” to deflect from or minimize the physiological experience), or
- using a “lexical evasion”—substituting a more neutral or less emotionally charged term—to describe their experience, such as *hard* or *difficult* instead of *aggravating* or *sad*, or
- maintaining a focus on *anger* regarding an external event rather than allow awareness of a rising physiological experience of *sadness*.

Fourth, the concept of indeterminacy holds that every individual has a unique personal sensory history from which meaning arises. Therefore, it is impossible to quantify, calculate, or assume a “right,” “wrong,” or “true” perception or determination of action in any specific setting or event (Dahlberg, 2006). Everything one perceives is based on their lived experience of understanding (Mueller, 1996). With indeterminacy in mind, again, I chose to use the participants’ words over mine in the explication of their experiences because I wanted to remain faithful to their descriptions and not assert my understanding (Dahlberg, 2006).

Lastly, given the uniqueness of each participant’s experience, the progression through the *preconscious* and *unconscious* microprocesses of embodied cognition may not seem consistent across all narratives. However, I have introduced the narratives in a stairstep manner, attending first to those who were still moving through their *preconscious* sensory experiences (*fear* and *anger*) to those who eventually moved into the *conscious* emotional experience of sadness and eventually were able to experience transformative learning.

For example, the first narrative, Gigi’s, centers on a participant still in the initial or raw experience of the felt sense (fear/anxiety, with movement toward anger/agitation in the second interview). The second narrative, Charles,’ focuses on a participant who admitted to consciously avoiding the sensory experience of fear or anger by using intellectualization. The third narrative, Marilyn’s, demonstrates a participant’s unconscious attempt (realized and acknowledged to at a follow-up session) to avoid both the emotional and intellectual functions of embodied cognition by way of intellectualization.

The fourth narrative, Sarah’s, highlights an unlocking of embodied cognition, movement to sadness, and transformative learning, prompted by the interviews. The fifth narrative, Isabel’s, represents a conscious choice to dwell in the sensory and emotional experiences avoided for 50-

plus years and unlock embodied cognition, followed by transformative learning. The sixth narrative, Mary's, represents a more natural process of dealing with grief through an initial avoidance and lockdown of embodied cognition, an eventual acknowledgment of sadness and unlocking of embodied cognition, and a significant transformative learning experience. Thus, the first two participants stories represent a continued lockdown of embodied cognition while the last four show a progression to the unlocking of embodied cognition.

I've Lost Control of My Life

I feel like I can't control it, I don't like that feeling, I can't control it, I can't get it back, I need to get it back, it's out of control and I've never felt that before. My life, I need to be able to control it, I can't control it right now, and I feel like I've lost grip. I don't know what to do.

—Gigi

Gigi, a 53-year-old female, was interviewed 3 months after her vehicle t-boned another car, driven by a 16-year-old female who illegally intersected Gigi's passage on a four-lane highway. Gigi's lived experience of disorientation was the most recent experience of the six participants interviewed for this study. Notably, in the following account, Gigi remains in the immediate edge-emotions of the felt sense (fear and anger) three months later, and is unable to move past these initial sensory experiences to access the emotion necessary to grieve this lived experience and unlock embodied cognition.

Gigi's lived experience of being *preconsciously* "stuck" (van der Kolk, 2015) in a lockdown of embodied cognition is indicated by her inability to make sense of what happened due to the constant *preconscious* sensory experiences (phantasia) she refers to, such as seeing, hearing, smelling, and feeling. I emphasized these *preconscious* sensory experiences in italics

and added correlating sensory indicators [in brackets] to identify other sensory experiences contributing to Gigi's disorientation. Gigi's first and second narratives were almost identical to one another, an indication she was still very deep in the *preconscious* sensory experiences of the felt sense experience (fear, anger, and flocking) at the first and second interviews. Gigi asked to read her narratives to help her stay close to the story and as they were all her words, I eliminated quotation marks except where emphasis was necessary.

Gigi's Narrative

It was a normal workday on Tuesday as I left work and headed home at 5 p.m. Approaching my normal exit on the interstate, I noticed [seeing] traffic was backed up onto the expressway, so I made a quick decision to just go up to the next exit. Five minutes after exiting the highway I turned onto a major four-lane highway and, instantly [seeing], the skies turned black, it started pouring hard rain and was hailing. Just a few seconds after pulling off from a red light, suddenly [seeing] there was a car about twenty feet in front of me perpendicular to my position. Fear [phantasia] was the first thing I felt. Oh God. I did not have any time to react, like applying the brake, so I just lifted [preconscious knowing constructed by the felt sense] my foot off the gas pedal in hopes of not hitting this person so hard.

The next thing I *knew* [sensorily], there was this *loud, horrendous bang*, like an *explosion* [hearing]! I can *hear* the hail. It *feels* like I'm sliding. I can't *see*. My arms were *burning*. I'm still *moving*. I *put* my foot on the break, I can *hear* the ABS. I come to a *stop*. My car was still *running* so I put it in park. Turned it off. What *seemed* like forever, *I came to, smoke* [smell] filled my vehicle, and *I thought* [preconscious knowing constructed by the felt sense] it was on fire.

I sat there, in what seemed like an *out-of-body-like state and* was wondering [attempt at sensemaking] if I was dead, *looking* [seeing] down onto the wreck and myself. I sat there for what *seemed* like several minutes and asked aloud, “Am I dead?” I could see my mouth moving in the car asking the question. A response came back and said, “No, you are not dead.” It was not a voice I recognized. Then I asked, “Are you sure?” The voice said, “No, you are not done.” I have not told another soul about this because I didn’t think they would believe me. As I was *trying to decide* [attempt to make sense] if I was OK, a *blood-curdling scream* [hearing] came from just outside my driver door. I *took* my seatbelt off, as I wanted to help this person screaming, but when I *tried to turn* my body to open the door, I had the most horrific *pain* in the center of my chest *hit me*, and a gas-like groan *came out* of me.

I then *heard* someone say, "Don't move, your back may be broken." I sat there *gasping* for air to breathe. I could *smell* the charge of the airbags that had gone off in my car. Then, I *heard* the sirens; it seemed [attempt at sensemaking] like so many of them. Then I *heard* someone say, “We are going to slide this backboard into your car, don't try to move, we will get you.”

I *am in* the ambulance, *I feel* needles going into each arm almost simultaneously, I *hear* a man who says he is a police officer asking me what happened. I *told* him. Three different EMTs are *telling me* [hearing] *not to move* and that they are going to cut my clothes off to apply some leads to my entire body. I *say* to them, “Please call my husband and tell him I was in a wreck [flocking].” The police officer called him, I *heard* him say, “She has some extensive injuries, and we are heading to the medical center with her.”

I *remember* thinking, why is this officer in my ambulance [attempt at sensemaking]? We *got* to the hospital, and one of the paramedics *put* his jacket over my face so that I was not hit by

the hail coming down outside. The *pain* in my chest was the most excruciating pain I have ever *felt*. Both arms are still *on fire*, burning. My hand is starting to *hurt*. I look down, and clearly you could *see* it was broken. For some reason, I can still *smell* the smoke. My head is *hurting* really bad. Now I am *getting* nauseous. *Seemed* like forever, we *get* to the hospital.

They *wheel* me in, I *hear* a lot of people around me talking medical language to the paramedics. They are *pushing me* so fast that the wind is *making me cold*. I *told* [flocking] them I *was cold*, and they *covered me* with a warm blanket. I *am told* [hearing] we are going to have to wait in the hallway for a few minutes, as the ER is overcrowded with people and that it is also shift-change time and there aren't any exam rooms available yet. I *am on* the gurney up against the wall in the hallway ... I *hear* that blood-curdling scream again from behind me and I *ask* [flocking] the officer standing next to me who was screaming ... he leaned down and said, That is the little girl you hit.”

My mind *panicked* [as she attempts to make sense, she starts to cry talking about this during her second interview] and I *think* of a little girl my granddaughter's age, and I *asked* [flocking], “Did I hit a little girl?” The officer said, “No, she's 16.” I *thought* I had killed her. I *asked* him if she was OK [flocking]; he said that she only has scratches and bruises but that she is just upset as she is only 16 years old. I started *crying*. I was thinking I killed someone because I could *see* a person before I hit them, but I *couldn't tell* [attempt at sensemaking] if it was a guy or a girl or what. I'm *thinking* [sensemaking], I'm in a tall vehicle, they are in a short car. I'm going to decapitate this person cause I'm going to hit their door. I just *knew* [attempt at sensemaking] I killed them. Oh my God, don't let this person die. When I *heard* her scream, I was, OK, they are not dead, they are screaming [attempt at meaning making]. I was still *wondering* [flocking] about her injuries. What's wrong with her, what did I do to her, even

though it was not my fault? What did I do to her? ‘Cause I hit her [crying]. The paramedics leaned down to reassure me that she was OK, she is just scared.

Finally, I am moved to an exam room, lots of doctors and nurses *around* me *hooking* me up to some kind of machine, *yelling* [hearing] to one another to get me to scanning. I am *wheeled* to the MRI room, *still on* a backboard and my gurney. They *shift me* over to the table, and I look around and I *see* [flocking] my husband come in. There are still lots of doctors and nurses around me, and someone is *telling me* [hearing] not to move. [Gigi starts to cry again.]

I can’t get rid of that *sound*, the crash, the metal, the glass, I don’t know, it’s just so *loud*, the explosion and the *flash of light* [seeing]. I remember *smelling* some kind of a chemical smell while in this MRI tunnel. It was *very loud and cold* in this tunnel. While I am in this tube, I am *thinking* [sensemaking] about this little girl, this 16-year-old girl. I’m still asking about her, and they are telling me, “She’s OK, she’s OK.” I come out, and the police officer is still in the hospital, and he said, “GiGi, you took all of it. You and your vehicle took all of the impact.”

I don’t even know what they *look* like, I don’t know what my car *looks* like, what her car *looks* like [attempt at sensemaking]. I am then *wheeled* back into my exam room; a technician comes in with a portable x-ray machine, and they start *taking* x-rays of both of my hands. The *pain* in my chest is excruciating, my right hand is really *hurting*. I’m still very *cold*. I said everything was really *hurting*. Then I feel a nurse *putting* something into my intravenous device. I *look* [flocking] at my husband and can tell by the look on his face that he is concerned for me. I dozed off for what only *felt* like a few minutes.

I *opened* my eyes, and it was just me and my husband in the room. My husband said [hearing], “We are just waiting for all the x-ray results to come back.” A while later, a doctor comes in and *tells* me that my hand is the only thing broken, my brain is OK, and that I can be

released to go home. It's now 3:45 the next morning. I have a *huge headache* from being on the *hard* backboard for so long and *not eating*. *Pain*. I can't bend either arm, they are *on fire*. We leave, with some prescriptions in hand, and drive to a 24-hour CVS to get them filled. We get home, the dogs are *jumping up* to me and smelling me like they know something is wrong. I *go* into the bedroom, *not being able to move* either arm or hands. My husband has to take my clothes off me. He *put* a t-shirt on me, and I *got* into bed, moaning in *pain* from every movement, and *fall asleep very quickly*.

[Second interview.] I think I was able to let go [of the fear], finally, probably just a few weeks ago. I was still wondering about the girl; I am *mad* [anger] at her because she still should not have pulled out like that. Who in their right mind tries to shoot across a four-lane highway in those weather conditions. Why would you do that? Why? And I kept thinking all of this time, it would have been much easier for you to turn right, go up to a red light and turn around"—normally, don't, why, why would anybody try that? Why would anybody do that? I wouldn't even do that. In broad daylight, I wouldn't do that. I just keep thinking, Why, why would she do that? That's what I can't get out of my mind. That and the *sound* [hearing] of the impact. Why did she do that? I just want to know why? I think I could let go of it if she told me why. Why would you do that, little girl? Why? Cause I could close it. I could find closure if I knew why [attempt at sensemaking with a flurry of questions].

Even if it's not a good reason. just tell me why you would do that?" [as it seemed obvious the girl was inexperienced and wondering what she would say, I ask, "Because she is inexperienced?"]. That's not a reason. In my mind that's the parent's fault for not teaching that child, "don't ever do that." And I am so *angry*, I want to punch the parents in the face. I am so *an*— ... "Why didn't you teach your child not to do that?" I taught my child, who's double your

age. You would never do that, you wouldn't do that in broad daylight, you're not driving a Ferrari. You're not going to get across the road, especially in those conditions. You're not. She was at a stop sign and decided to shoot straight across to try to get to the turn lane. All this whole time, that's what I thought: "She'll never do that again. What a hard lesson to learn."

But I am carrying it. Why am I carrying it? [crying] I am carrying it because I hit her, I probably hurt her, I destroyed her car. Destroyed it. But why would you do that [again a flurry of questions attempting to make sense], why would you put somebody in the position of possibly killing you? That's what I can't put my head around. You made me almost kill you. You did. Not me. I am very *angry*. I am *angry* that you would make such a stupid decision at the cost of your own life. I hit her right on her door, at her seat. Her seat was literally half the width. I pushed it into her center console; she had to get out the other side. Her car is shaped like a V because it was wrapped around the front of mine, and I pushed us through the turn lane through the other two oncoming traffic lanes to the other side of the highway, almost going off into a hole. We were that far from going off ... [she demonstrates the distance with her hand about two feet]. And when the cars, when we finally stopped, her car swung around, and it was literally just wide enough for them to stick a backboard in and get me out. That's how close she was to me. But her car was hooked onto my car, I could *feel* it as we were sliding. [Long pause]

"When? Why did you do that? I don't think I could have lived with myself if I would have killed her. Even if I would have known it wasn't my fault. Why would you put somebody else, much less yourself, in that position? Why? I don't care if you are inexperienced. That was so stupid.

[Researcher: "What is it like to live with this experience?"] It's awful. I think about it every day, I *hear* the sound. I can't ... so apparently there are basically explosive devices in air

bags, that's what makes them discharge, and all I *saw* was this quick flash of a fire because all of my air bags deployed, every one of them from front to back, and it was so *smoky*, and it was so *loud*. It was like literally being in a four-walled room and a bomb going off. That's what it *sounded* like. And it was like, afterwards, like your hands were cupped over your ears and that's all you can *hear* for hours. That's all I could *hear*, like somebody was holding my ears. Like you can hear that you are talking but you don't know what you are saying. Like being in a tunnel.

[Researcher: Muffled?] Yeah, extremely, extremely muffled because it was so *loud*.

[Researcher: "Have you had the opportunity to move past the sensory experience of fear?"] Not to this point. When I begin to start thinking about it, I'm like, "Stop, stop, *stop, just think about something else* [willing the lock down of embodied cognition]." Because I know *I've got to stop concentrating on it*. But I can't. It's like I—how do I do that? How do I stop thinking about that? How do I stop *hearing* that, I can't even stop *hearing* that. Between the explosion and the metal at the same time, it was just on the level of ... I don't even know what that level is, it's just so *loud*. Literally like a bomb going off.

[Researcher: "Are you able or have you been able to experience any other sensory experience other than fear?"] *Anger. Still in anger*, and as horrible as this may sound, I want to *bust this little girl's ass* so bad and give her the whippin' she's never had for making such a stupid decision, hurting her life and mine [crying again]. And it has absolutely destroyed my life in a lot of ways. Because they only had liability. I've had to deal with the insurance. Her liability has a \$25,000 cap, and my hand is already at \$32,000 and still climbing. The value of my car was more than twenty-five, but they can only give me twenty-five, so my insurance had to take over, so I'm having to stay on the phone with their insurance, my insurance, deal with my hand therapy, go to regular therapy to deal with this in my head, literally every day, for that decision.

It has literally ruined my life, and I feel like I'm out of con—I can't control it, I don't like that *feeling*, I can't control it, I can't get it back, I need to get it back, it's out of control, and I've never *felt* that before. My life, I need to be able to control it, I can't control it right now, and I *feel* like I've lost grip. I don't know what to do. All because of that. I have to drive somebody else's vehicle because I don't have one. I have to deal with the insurance while I'm going back to work, re-learning everything, new things, my entire life has changed. [Researcher: "How was the experience of getting back to driving?"] Horrible, I still don't. I used to love to drive. Oh my God. And now I am so *white knuckled* on the way to work, every morning, that literally my fingers are *cold* by the time I get to work. Everything, I'm *watching* [seeing] everybody. I'm staying in the slow lane. I never stay in the slow lane. I'm the person that's on your rearend because you need to get over. I'm usually in the left lane. Slower traffic keeps right, keep right except to pass. But now I am the one in the right lane doing 60, 65 in a 70 on I-985. That's not me.

That split decision she made will probably impact my life for the rest of my life. And even though I was in a really bad accident when I was little, I think this one was worse because I was driving this time. I was in control of my vehicle, but in a split second, *I didn't have control*, in that very moment, and I haven't had control since then. *I feel ...* this happened out of nowhere, and I don't like this. And I can't help wondering, "Why did you do that [sensemaking]? Now look at what you caused." I'm thankful she's OK, I'm thankful. But honestly, I knew I was going to kill a person because I could see a person. [silence and then she takes a deep releasing breath.]

[Researcher: "How are your intellectual functions today compared to the day of the accident?"] About the same. [In an attempt to differentiate her current thinking from that on the day of the accident, I began to ask, "In the last interview, you stated that you did not have time to

brake and lifted—,” I did not get to finish the question.] Lifted, didn’t even take it off, I just lifted, I just, it, *all of a sudden*, when she is in front of me, I am not kidding you, and she is thirty feet in front of me, and I am doing 55 mph, and all I did was barely lift. Later on, the police officer told me that he thinks, upon impact, because my foot was still over the gas, that it went down, that I am the reason we went through the turn lane, the other two lanes, because my foot went down on the gas, because there was zero time for reaction. I mean she’s literally thirty feet in front of me. Literally, at the moment I saw her, pardon my French, I literally said aloud, I said “Oh, shit.” And then there it was, I *didn’t even have time* for a *feeling* of reaction, other than my foot lifting, but as far as an *emotion*, there *wasn’t enough time for an emotion*. It was just, “Oh shit.”

I *feel* [use of the term feel to mean think] it was an automatic reaction. No *emotion*, no *thinking* [lockdown of embodied cognition]. [Researcher: as I begin to described flocking, again, before I am done] Absolutely, [as I continue, “... bobbing your head about and looking . . .”] yes! Yes! And I remember once I came to, it *seemed* like an eternity, I remember the *first feeling* [sense] I had was *fight or flight*. I remember that *feeling*, it wasn’t *fear*, *anger*, or *sadness*, it was fight or flight. It’s like, “Where am I, where do I go, what do I do next?” [flocking]. And it was (snaps her fingers), it was that fast.

One thing I notice is that the people I am around every day at work say they see a different me. I know this may sound crazy, but I *mourn* [finally speaks to *sadness*, though intellectually as a process regarding her vehicle, not necessarily her personal experience] the loss of my vehicle, and everybody at work sees it in me. I am not overly excited to drive home. It takes me a little longer to get to work, and they see this and are like, “Wow, GiGi,” just looking at me, not even talking to me, but just looking at me. They said my whole attitude and presence

has changed; I'm not laughing, bubbly. I don't talk about my experience coming in or any experience coming in, like I used to, you know, "Crazy slow woman," I don't even talk about it now. As stupid as it sounds, it's kind of hard to swallow that everybody sees a different me now. Is that good or bad? Will I get back to who I was, will I get over this [sensemaking]?

Analysis

Before the cars collided, the external sensory information Gigi experienced co-mingled with her personal sensory historicity (Weiss, 2015), inciting the first microprocess of *the felt sense, fear*, and informed Gigi with a *preconscious* knowing, about a possible threat. This knowing informed the amygdala to sound the alarm, to provoke the second microprocess of *anger* to motivate *action*—a “fight or flight response” (Van der Kolk, 2015)—to protect herself. In this case, she performed the *action* of putting her foot on the brake.

Preconscious Microprocess of Embodied Cognition

- **Phantasia** - After the “loud bang” of the two cars colliding, Gigi *heard* the hail, *felt* the car sliding, could not *see*, felt her arms *burning*, felt she was still *moving*, *put* her foot on the brake, *heard* the ABS, *came* to a stop, *noticed* the car was still running, *put* it in park, *turned* it off, and *smelled* something burning bringing her finally to an awareness that something was on fire.
- **Fear** – All these preconscious sensory experiences identified by *the felt sense*—the location of meaning (Freeman, 2017)—informed Gigi of a threat (fear).

Gigi continued, after the accident, to resist feeling the sensory experience that might accompany any thought about the accident as she stated: When I begin to start thinking about it, I'm like, “Stop, stop, stop, just think about something else.”

Because I know I've got to stop concentrating on it. But I can't. It's like I—how do I do that? How do I stop thinking about that?

Not thinking about it (*denial*—Stage 1 of the grief process) protected her from having to experience the sensory experience of fear regarding what she identified later as a fear of not being able to re-establish her “sense of control.” She stated, It has literally ruined my life, and I feel like I'm out of control, I can't control it, I don't like that feeling, I can't control it. I can't get it back, I need to get it back, it's out of control and I've never felt that before. My life I need to be able to control it, I can't control it right now and I feel like I've lost grip. I don't know what to do.

By the second interview, however, Gigi stated, “I think I was able to let go, finally, probably just a few weeks ago.” She indicated at the follow-up session, the interviews allowed her to clear the first microprocess of the felt sense of *fear*, to bring her fully to the second, *anger*.

- **Anger** - Gigi initially recalled an immediate need to fight or flee (motivated by anger) but not the sensory experience of fear. Gigi believes she was not conscious yet, because she then became aware of having an out-of-body experience. She could see her body in the car below her, she saw her arms waving the smoke away from her face, she saw her mouth moving as it asked the question “Am I dead?” (flocking), and she hears the answer “No, you are not dead.” What she saw, she was able to understand, but what she heard, she did not. She stated she had no previous experience (sensory knowledge) similar to this experience, nor (as she mentions later) religious beliefs to associate it to, that might bring her understanding.
 - “anger, still anger,” and said she wanted to give the girl driving the other car “the whippin’ she’s never had for making such a stupid decision” and “punch

the parents in the face.” These statements indicate movement to the second stage of the grief process, *anger*, and may also indicate the third stage, *bargaining*, as she negotiated options for finding relief.

Gigi continued to demonstrate anger as she engaged in the furious outpouring of questions about: “Who in their right mind tries to shoot across a four-lane highway in those weather conditions?” This rapid release of questions revealed a continued overload of sensory experiences (fear and anger), not yet fully processed from the accident. Toward the end of this exchange, after the intense disclosure of her anger about her sense of loss of control, Gigi took a deep releasing breath and began to cry.

- **Flocking/Sensemaking** - Gigi’s attempt at sensemaking about the voice responding to her question, was immediately interrupted by a “blood-curdling scream,” and she was once more instantly provoked by *the felt sense (fear) to action (anger)*. The scream brought her to some level of awareness (historically aware of the sensory meaning of a scream of that type), and the energy supplied from *anger* motivated her to immediately take off her seatbelt to go help. She could not, however, because she was stopped by pain, and a warning from someone, not to move because her back might be broken.

Overwhelmed by the continued sensory experiences (phantasia) on her way to and at the hospital, she was still unable to make sense of anything. She wondered why the police officer was in the ambulance and why the girl was still screaming if she was not hurt. She did manage to make some meaning about the seriousness of her condition, because she *heard* the police officer tell her husband she “has extensive injuries” and she *saw* her husband’s face and apparent concern for her once she was in the hospital room.

Findings show, three months after the accident, Gigi's felt-sense experience of disorientation continues to dwell in the first phase of the transformative learning process, as fear and anger continue to hold her in a lockdown of embodied cognition. Gigi's conceptualization of her experience during the first interview involved primarily the felt sense experiences of fear. The intensity of her anger was evident in the second interview with the rapid-fire pace of questions as she continued to attempt to make sense of the situation.

Why would you do that? Why? And I kept thinking all of this time, it would have been much easier for you to turn right, go up to a red light and turn around," Why, why would anybody try that? Why would anybody do that? I wouldn't even do that. In broad daylight, I wouldn't do that. I just keep thinking, Why, why would she do that? That's what I can't get out of my mind. That and the *sound* [hearing] of the impact. Why did she do that? I just want to know why? I think I could let go of it if she told me why. Why would you do that, little girl? Why? Cause I could close it. I could find closure if I knew why [attempt at sensemaking with a flurry of questions].

Lockdown of Embodied Cognition

Due to a disabled conceptualization of time, Gigi's perception of the time it took to complete the above scenario was—"several minutes" during the first interview, and "an eternity" during the second interview—and further re-conceptualized toward the end of the second interview to "it was [snaps her fingers], it was that fast."

Conscious Microprocess of Embodied Cognition

- **Emotion** - Speaking aloud while in edge-emotions or "naming the growing edge is[,] in itself a powerful intervention" (Berger, 2004, p. 346), in promoting healing. "I mourn the loss of my vehicle, and everybody at work sees it in me."

Gigi found it “*hard to swallow [sad]* that everybody sees a different me now.” She was beginning to experience some sadness as she discussed the possibility of having lost herself. She remembered she was more “bubbly” and “the type of person that is always on your rearend [while driving] because you need to get over.” Now, she felt disheartened to be traveling the slow lane on the right.

In summary, The very moment Gigi saw the car coming out in front of her, interoceptive activity was recording a new experience she would have to confront eventually intellectually. In life and learning “transitions begin with an ending” (Bridges & Bridges, 2019, p. 4) and in this case, the ending represented an awakening about the reality of her capacity to always be “in control.” Gigi would have to negotiate this new knowledge about her inability to always be in control.

Findings showed, how the overwhelming amount of *sensory* information (phantasia) Gigi experienced, as a result of the accident, invoked the first *preconscious* microprocess of the felt sense of embodied cognition, *fear*, setting in motion the first phase of the transformative learning process, the disorienting dilemma. This sensory information informed her of danger, motivating her to protect herself by putting her foot on the brake. Asking questions about the screams she was hearing and seeing her husband at the hospital, *flocking*, would eventually allow her to find a sense of safety.

Reliving and resurrecting the sensory experiences, thereafter, when talking about the accident to family, friends, and during the interviews, helped take the edge off the *fear* and *denial* (first stage of embodied cognition and the grief process) about it having happened at all. This gave rise to *anger* (second *preconscious* stage of embodied cognition and of grief process) as she negotiated, the events of the accident through *flocking* and *bargaining* (third stage of

embodied cognition and grief process), primarily sensorily. These movements through embodied cognition and the stages of grief brought her eventually to the realization of the loss of control and some *sadness* (self-examination and fourth stage of grief process) associated to this reality.

Unfortunately, Gigi would later become aware of some “shady maneuvers” that insurance companies “don’t tell you,” resurrecting her anger and motivating her to again take *action* (second stoic discipline) with the insurance companies. This became her “mission” as she *willfully* (the third discipline) used the energy of *anger* to reclaim her sense of control by taking *action* against this malpractice. Gigi’s continued entanglement with the insurance companies keeps her distracted from completing her grief and transformative learning processes, as she continues to experience anger.

Gigi stated the settlement process would likely extend for a “couple of years,” in turn, postponing her ability to complete the grief and transformative processes. However, an eventual opportunity to critically reflect without the distraction of denial, anger, bargaining, and sadness, will support the potential for the development of a new frame of reference about the accident and her loss of power. Accordingly, this would bring *acceptance* (last stage of the grief process) and transformation.

Findings from this narrative validate the preconscious microprocesses of embodied cognition as edge-emotions and the location of meaning in a disorienting dilemma. The findings also showed how a sustained residence in the preconscious microprocesses of fear, anger, and flocking stalls the movement to the emotional function of cognition, maintaining a lockdown of embodied cognition. From the numerous “evocative terms” identified by researchers of transformative learning to describe a barrier in the first phase of transformative learning

(discussed in the introduction of Chapter 1), Mälkki's (2011) term "mental emergency" (p. 31) best describes Gigi's lived experience of disorientation in the lockdown of embodied cognition.

Who's Throwing Stones?

The metaphors are just hard to ignore—there were fences, and rocks were thrown. I mean, glass houses, stones, there's a lot going on there. That metaphor was, was more than real for me. I, the rock didn't hit me, but I would've felt better if it had.

—Charles

I chose to present Charles's interview next, to follow the stairstep progression of the felt sense through the microprocesses of embodied cognition. As with Gigi, Charles' felt-sense experience continues to reside in the *preconscious* microprocesses of *fear* and *anger*. However, Charles openly admits, two years later, to resisting these sensory experiences—indicating he is residing in a comfort zone, "a safe place to land" (Mälkki, 2019, p. 68) and lockdown of embodied cognition. Additionally, Charles and sometimes other participants refer to their experience of disorientation as a trauma. I honor this as a more intense level of disorientation.

Charles's Narrative

Charles, a 48-year-old male, has "lived in a few places" and spent a significant amount of time abroad, but currently resides in a southern region of the United States. Taking pride in being a 13th-generation American raised in a culturally middle-class household in the South, he grew up in and attended public schools in mixed and highly diverse inner-city lower-working-class neighborhoods. The experience Charles brought for this interview occurred in 2021, 2 years after being separated from his family in southeast Asia by the COVID-19 pandemic. Once the borders were re-opened he returned, and during his first visit he received an open rejection by his preschool-aged daughter.

The Wedding

Charles moved abroad in 2012 after meeting his ex-wife, a woman he described as “traveled, educated, employed, enjoying some material success, and different than most women in her culture.” They dated for 4 years prior to becoming engaged. He stated that he wanted “all the things,” a home, business, family, and especially “the beautiful traditional things that go along with [his wife’s culture’s] customs” because the traditions of the United States are “so black and white and blah.”

They chose to marry in 2016. As they began to plan for the wedding, however, Charles became aware “I was simply expected to show up and do what they told me.” This is when he came to understand the relationship was going to fail. In his fiancée’s culture, the process of a wedding engagement is more intense than a traditional engagement in the United States. He was required and willing to pay (what “sounds like a thousand years ago”) a dowry valued at 10,000 dollars, “offering cows, pigs, chickens, gold, local currency, foreign currency.”

Although Charles covered the dowry and eventually paid for the whole wedding, her family denied him a live band at the wedding and what he considered a rather unconventional bachelor party, as typically practiced in the United States. Everyone, including members of both families, were invited to the bachelor party held at a local restaurant offering karaoke, pool, and libations. Despite their objection, Charles chose to follow through with the party and was “punished” for having done so. After returning home at about midnight, he was awakened 4 hours later and expected to help set up for the wedding at noon:

These are such petty things. So, I could see from the get-go there was no appreciation about having two people from different cultures. I was not asking for a 50-50 agreement

but a 90-10 agreement. But they expected 99.99%, so only 0.001% of my family culture would be observed. It is as though my family, my culture, and I did not exist.

The family eventually acquiesced to the live band only and seemed to enjoy having the music.

After the Wedding

Charles stated it was common for the elder women, of his wife's culture, to run the house and neighborhood. At the macro levels, the men are in control; however, at the village level, it is the women who exercise control "a hundred percent." This meant that he was expected to support the entire family and turn over all his finances to his wife. Charles supported his wife working and was willing to let her keep 100% of her paycheck, however, he was not ready to turn over his completely. He lamented as he offered, "So, uh, it's like, what's yours is yours, and half of what's mine is yours."

Charles eventually acquiesced and agreed to pay for the house and food, offered a percentage of his income for the family account, and gave another portion of his earnings to do with as they pleased. In the end, however, he would relinquish control of his bank account, the lease to the house, and the title to the car.

Charles emphasized that he was not motivated by money; he was content with his ideal life and playing music down the street at a local Christian coffee house. Music was a quintessential part of his identity and one of the only mental health outlets available to him in this society. Unfortunately, this became an issue for the family, who accused him of drinking and meeting up with women at this coffee house. Charles realized the relationship was only getting worse. He stopped playing music out of deference to her family but began thinking living in his wife's hometown was probably a bad idea.

Their daughter was born in 2018, and shortly thereafter, things became more difficult. When his wife became upset with him, she would go to her family home with their daughter and stay for days. When he was away at work, she would not reply to his calls, sometimes for weeks. The family, although responsible for supporting his wife and him, “they did not support our agreement or the relationship in accordance with their laws.” This eventually led to divorce.

Although their marriage is documented as having lasted 6 years in the United States, until 2022, abroad it was documented as only having lasted one year, until 2017. Though the authorities did not agree with the accusations, the family tried to make him out to be an alcoholic and hooligan because he was playing music at a Christian center. Charles could have resorted to disqualifying his ex-wife by proving she was a drug addict or abusive to the child, but he did not want to disenfranchise her because it would have only hurt his daughter.

After the Divorce

Charles left to return to the United States and due to the Covid-19 pandemic, was separated from his wife and child for 2 years. Since his ex-wife’s family did not uphold their end of the relationship, Charles was legally awarded visitation and, and as custom in their culture, twice the amount of the dowry he paid out. He never received any money, and, they made visitation difficult for him:

I have a document that says I am entitled to these things, but it's made from rice paper.

It's not enforceable because it's customary and village law. It's just a handshake deal on a piece of paper that's stamped in red.

Consequently, Charles was not able to enforce his right to fatherhood, call/facetime, visit, or have time to his daughter as joint custody dictates. The decision was left entirely up to the mother.

The Disorienting Dilemma

Charles made plans to return to visit his daughter after the borders re-opened. Given the difficulties Charles experienced with his ex-wife and her family, he decided to ask a friend to travel with him. This friend, married to a woman from the same culture, understood Charles' experience. Additionally, while Charles was able to speak some of his daughter's family's language, his friend was an advanced speaker. Charles hoped his presence might serve him if he needed an interpreter or possibly a witness if anything out of the ordinary were to take place.

There was already plenty of uncertainty and instability in the background of Charles's life in the United States, with legal, government, budget, and transportation issues as he was dissolving his company during a pandemic. Seeing his daughter was meant to be a kind of rejuvenating experience:

It was supposed to reconnect me with the parts of myself that are immutable. It was supposed to connect me with her being my family. It was supposed to reaffirm my identity as a father, and it was supposed to be a break from all the things in the world that are so difficult. I mean, she is a child. So, I wanted to be like a child and be with her and, and operate like, like a 5-year-old, you know? I did. I wanted to be a 5-year-old, too.

Charles' ex-wife, daughter, and family were all at the house when he and his friend arrived. In all, there were between 15 and 20 people there. Although it was normal for extended family to be around, this seemed to cause some confusion for him, and "it felt as though they brought in some reinforcements." These reinforcements created an uncomfortable sensory experience for him, a felt sense of being surrounded and crowded by people who were distrusting of him.

He could see and hear them talking about him, his relationship, and his value and worth as a person and as a father, and this was very difficult for him. It did not seem to matter that the country was closed or that he satisfied the financial agreement they chose for alimony and child support at the time of the divorce. They were given two choices, and chose the option to take all he owned at the time of the divorce, his business and his money, before he left to return to the United States, rather than allow him to stay, continue his work, and make regular child support payments.

Charles experienced another felt-sense experience, involving the music, the food, and the smells of this place, evoking “a lot of nostalgia from the time that I lived there, and, um, my place in that society. These sensory experiences impacted me because it, it made me feel very present there.”

Charles and his daughter did not have many chances to speak during the 2 years the borders were closed. His ex-wife limited his access to his daughter and to herself. She blocked him on social media and was not responding to emails or phone calls. Consequently, he was not receiving photos or videos of his daughter nor was allowed any interaction with her so that she could see his face and hear his voice.

His ex-wife did allow Charles’s father to contact his granddaughter. His ex-wife “felt some sense of safety with him.” His father and daughter met a couple of times and had a few phone calls, so his daughter knew his father better than him, and Charles wondered if possibly she might have confused his father for her father.

When his daughter first saw him that day, she did not know who he was, and was distracted by so many people around. Her attention was elsewhere, and she sought safety in the people with whom she was familiar. There was no real encouragement to speak or effort to push

her toward him to facilitate their being closer. “That was hard, um, of course, I hoped that she would be able to identify me or at least show interest, and the fact that I had to introduce myself, without being introduced by someone else ... well.”

He was concerned about pushing the boundaries because he did not want to scare her away. He thought, “Let things go the way they go.” His ex-wife was generally noncommunicative in these situations. She did not say anything, negative or positive; she just sat there and allowed it to take place without any intervention. This clearly affirmed, to Charles, the status quo of what was happening there:

That right there was enough to, that was upsetting because I thought she should know my photo, she should know my voice. Um, and if she is feeling shy, I would, kids are shy.

So, I, I wouldn't have taken it personally that she was a bit reserved because I think that's quite normal behavior, even in the best conditions.

Charles stated that the family gave his daughter a sense of security but did not reassure her that he was a safe person to talk to, and they did not explain to her that this was her chance to talk to her father. They did not say, “This is your father.” He told her in her native language since she did not speak English. She was sitting on their lap and not really being asked to go to him, to interact, and when he tried to speak to her, it seemed to him that he was a stranger.

Traditionally, they would show respect through gestures, nonverbal bowing, putting their hands together in a prayer-like manner when meeting an elder. “I know she had been taught those things because I saw her do it with other people.” However, Charles’s daughter was not reprimanded or encouraged to show him the respect a child would ordinarily show a parent. She never used the name “father” or “daddy.” There was no real greeting. She just looked at him.

It was not without meaning for him that she did not show respect. “So, the fact that I didn't get any of that was a huge message to me, and I perceived that it was observable to everyone there.” However, as he looked upon his father-in-law's face, he saw sadness and sensed remorse. He attempted to speak to Charles, but he was cut off. Charles believed, even though his ex-father-in-law did not approve of his daughter's or other family member's behavior, he was told to stay out of it.

In the past, when breaking bread together, sharing a meal and a beer, he sensed that his ex-father-in-law wanted to follow the ways of their culture, to forget about all the serious stuff and just smile and bring cheer. Charles stated they are a “forgive and forget” people. He believed his father-in-law was genuinely acting as a mediator, trying to remind folks that when they welcome people to their home, they should act civilly to each other, and when they are eating and drinking together, everyone is on the same “team.” “So, I, I felt [sensed] that he was uncomfortable, too, just one among the many.” In time, it would be the ex-mother-in-law who ended this first meeting and told him it was time to go. As it was her home, he felt he had no choice but to follow her wishes because he was not in the habit of staying somewhere he was neither wanted nor welcome.

Although it was a very short visit, Charles admitted, “I feel like I stole some moments there.” At one point, his ex-wife went on an errand to the store. During that time, he was able to access his daughter for a brief period. Attention was waning, and “I used a cousin,” his ex-wife's brother's child, who is the eldest of the cousins and about 11 years old. She knew Charles very well because he spent a lot of time with the family prior to his child's birth:

I went to her, and I asked her, I said, “Will you help me to play with my daughter, your cousin?” And she said, “Why do you need my help?” I said, “She doesn't really know

me, but you do. And you know that I'm someone who cares for you and I'm asking you to help me." She agreed. And she talked to my daughter because they're quite close. And we just played a simple game of chase with, and, you know, hide-and-seek sort of game. And, uh, there was a little bit of laughter and running around, but that was short-lived. Um, as soon as my ex-wife returned, she went back to my daughter, who returned to being more stoic and reserved and seeking attention from her mother.

According to Charles, this ex-wife's family did not care about all the maneuvers he made or the money he spent to travel at that time. Thus, "the game ended." Charles had a week, and although he and his daughter were meant to meet every day, this would be his final lasting memory of this meeting.

On the second day, the meeting was supposed to include him, his friend, his ex-wife, and one of her staff, who looks after his daughter from time to time. The four of them would go out with their daughter, perhaps to get some ice cream or go to the swimming pool. However, the meeting never happened:

I showed up the next morning, and everyone was gone. And, um, it was just a ghost town. No one at the house. There's always someone home. Um, you know, they don't have street addresses really or post office boxes the same way we do. They don't need it because when the postal worker comes by, they just talk to the person who lives there and gives it to them [laughing]. And so, the idea that no one would be home, where there's a multi-generational family living there, made their absence seemed deliberate to me. He checked their ancestral village several miles outside of town. It was a farm where they lived for many years before moving into town. The neighbors there said they had not seen his ex-

wife's family. They expressed some sympathy and advised that he just move on and go on about his business:

I said, "No, thank you." They said, "Find a new wife, make a new family, have another daughter or a son, and, and you'll be fine." Um, I said, "No, I don't think you understand how my family does things and how people in my culture do things. We value the idea that both parents will have a hand in raising their children and caring for them, but also sharing in, in that developmental period."

Charles finally went back to the house in town at dusk and discovered that a few of the family members had returned, including his ex-wife, her brother, and eventually the grandparents and one other person. Her brother was a member of the military force and, according to Charles, was kind of a tough character. The family seemed to be gathering to sit and have a meal together behind what he described as three fences. In this village, each house had three fences: a border fence along the curb to enter the property, a fence before the porch, and a fence, more like a door or gate, to the home itself. The family was sitting behind these three barriers, which were locked. "Um, there was no way I could get to them, so I had to holler across the yard to be heard."

Charles and his friend just stood there, and Charles finally said to the family:

"Well, I would just like to see my daughter." They said, "no." Um, there was a bit of other banter, some shouting. Um, I told my daughter that I loved her, that I'll never forget her, uh, that she has a father and that she will always have a father, and that she will always be my daughter, no matter how long it takes. And I asked her, um, I asked, uh, I asked my ex if I could, if I could see her again, and she said, "No, that's the end of this visit."

Charles reminded his ex-wife and her family of the document signed by the village chief, the local authority. In short, they told him they did not care about the document, and as a foreigner, he knew he did not have any pathways to pursue to demand his rights:

Um, this is the, the part that really, uh, made things hard for me. Um, obviously not having time together is bad enough, but, um, my ex-wife asked my daughter, “Do you want to meet him?” And she said, “No.” And they opened the gate to the house so that she could walk up further. So, then, the two of them walked up, my daughter picked up a stone and threw it at me, and, uh, it hit the fence in front of me. And, um, so, uh, that was really, really hard. And, uh, I don't really have words for that part of it, honestly. I still, I still don't.

Along with all the issues he was dealing with prior to the visit, he stated, I was already on thin ice, let's say, to mix metaphors. And so, when, when I, a, a pebble would've broken that ice, and so having, having a rock thrown at me was shattering in much the same way. And I fell right through the ice into the cold. And, um, the, I was physically frozen while that was happening [phantasia]. And my friend was the one who was hot. I was cold. I was, my body was tight. I couldn't say anything. I, I was, if, if tears could be words, I would've had plenty. I didn't, I was in shock. I was, I was in actual shock. I was just completely caught off guard.

Charles knew the visit might get ugly, but he did not know how ugly. He expected the ugliness would involve a few snide comments or some uncomfortable moments of confrontation, but he certainly did not expect a physical aspect to reveal itself:

The metaphors are just hard to ignore—there were fences, and rocks were thrown. I mean, glass houses, stones, there's a lot going on there [laughing]. That metaphor was,

was more than real for me. I, the rock didn't hit me, but I would've felt better if it had, because then at least I would've had physical pain to recover from. And I could say, "Well, I, I have this pain in my chest, it's my body."

It became clear to Charles that any further visits could result in violence or experiences that his daughter may have remembered and that his best course was to eliminate the possibility of any more bad memories. Therefore, he decided being there would be less harmful than being there, no matter how it would make him feel.

Eight Layers of Trauma

Charles identified what he called layers of the trauma he experienced during this incident.

1. First layer: Estrangement of daughter. "I was sure at that moment that I lost my daughter, maybe forever. I feared that my daughter had been poisoned against me and that she would never accept me as her father."
2. Second layer: Withdrawal of a close ally. "I lost my top confidant, number one in the hierarchy of confidants who understood my intercultural relationship."
3. Third layer: Unwitting usurper. "I was denying my parents, I lost the chance for them to be grandparents."
4. Fourth layer: Realization of betrayal. "The other people that I had as support in that town, um, who are Western, when I went back, I was shocked, there was a resentment they had, that I left this small town, I left them behind, and that I was being a bad parent."
5. Fifth layer: Nostalgia for a fantasy. "I was lamenting the loss of something that didn't really exist in the first place."

6. The sixth layer: A devolving negative self-perception. “self-loathing for having gotten to this place.”
7. Seventh layer: Failed attempts at relationships with women. “New relationships with women became dysfunctional because all I could think about was my daughter and getting to see her and being in her life, and it was such baggage and such a heavy weight to carry that it imposed, it was like the third person in the room in my relationships.”
8. Eighth layer: No access to therapy. “It, well, well, it wasn't until, um, 2 months later that I was able to start getting any therapy here.” Not being able to seek treatment that year “made me emotionally unavailable.”

What Now?

Every time I think I'm ready to be, just, released into the wild again and have relationships, it's clear to me that I have more work to do. And, um, I don't, I don't want, I don't want to lose years of my life at this. It's a delicate age to be at, in terms of looking to start a new family. I feel a sense of urgency, but that urgency is working against me because I need time and space to get all my feels back. And, you know, it's like every wire was cut and frayed, uh, in my emotion, emotional circuitry. So, it's like all, all those lines lead to nowhere. So, um, no, there is no flow. And, um, if, if, if the energy doesn't flow and the blood doesn't flow, uh, then something like desire or intimacy is just, forget about it.

Charles had a plane ticket for the following week to go back there again, and referencing Lucy and the football (metaphor) in the *Peanuts* comic strip, he did not know if he was Charlie Brown, and she (his ex-wife) was going to pull the football out from underneath him again. He

spent all the money he had in the world and then borrowed some to return there to be physically in front of his daughter “because I know there's no substitute for that.” He did have someone else, this time, to go with him who also lived interculturally and experienced difficulties in his marriage:

There's a boundary that I've drawn for this visit, and it may hurt me, but I must live by it. I don't feel comfortable going to their home. And if the only way I can see my daughter is going into that space where I was rejected, physically harmed, and removed, and where I'm unwelcome and hated and scorned, I cannot go into their family space again. I must meet in neutral territories, like in a public coffee house, a playground, a waterpark, a swimming pool. It can't be their house.

Charles was aware he would miss many opportunities to see his daughter because his ex-wife's family keep her there, at the home, and he was not willing to go there. He was concerned that this might be a very indirect way for them to cut him off. “I'm not going to go back on my own boundary, which is I don't go into the homes of people that throw things at me.” He stated he had enough self-love that he would not allow that to happen.

Charles would have a month for this visit, and his ex-wife took off a significant amount of time for the visit as well. He would have loved to be able to see his daughter daily and participate in the daily routine of her life there:

I want my daughter to know I'm, I'm not running away. And that this isn't just a stop on my selfish, you know, adventure. And I, but, but I think money talks and, uh, one of the biggest issues they had with me was that I wasn't sending them money, but again, they took my business, they took my money. I had nothing to give anymore. I had, leaving me with no choice but to leave. They wanted me gone so much.

He hoped this trip would make it possible to “plant some seeds” so he could move back and have regular visitation rights:

I may need to be alone there. So, I have to just live with what it is. The power structure is the way it is, and, and so, um, I mean, I guess, I am and, I am very, very anxious about this visit. If it's a repeat performance, it's going to take a lot longer before I can do it again. And what I'm afraid of is if something explodes again, that I might just have to wait 5 years before I try this again. Um, so ... And in terms of things making me feel uncomfortable [during the interview], I, when I was telling you about the, the rock throwing, um, that does evoke some pretty strong emotions. So, and, um, which I can contain, but they were present.

Findings

Charles openly acknowledges he has deliberately chosen to avoid addressing the felt sense microprocesses of fear, anger, and flocking, associated to the disorienting dilemma he faced two years ago—a decision aligned with the third stoic discipline of will. By residing in a comfort zone, Charles continues to be held captive in the first phase of the transformative learning process, perpetuating the lock down of embodied cognition.

Charles acknowledged he has “been a survivor since I was a young child, and the traumas I experienced early in my life have not been totally dealt with. I’ve learned to live, to get along, to function, but all that trauma is still there.” Complicating matters for Charles is a confidence in his ability to “endure things [sensory or emotional experiences?] that make people uncomfortable because I don’t feel them [feelings?], because I can block them [feelings?] out. I can numb them [feelings?].”

Charles believes “those [sensory and emotional] receptors are gone, the wires of my emotional circuitry are cut and frayed,” and now all those “lines lead to nowhere and the energy doesn’t flow through them.” He admitted he was “emotionally unavailable” during the previous year, and experiencing this recent disorienting dilemma, was just “another brick in the wall,” however, he does recognize also, “I need to get all of my feels back.” Although Charles holds his ability to numb himself with a degree of esteem, this behavior can cause sensory and emotional energy from these many experiences to accumulate, to become overwhelming, and to become potentially dangerous to his mental and physical health.

In this recent lived experience of disorientation, findings show, the restriction of sensory and emotional experiences, thwarts his ability to progress through the transformative learning process and process the grief about the loss of the dream he had about the family he wanted to have. He remains in denial, in a comfort zone, teetering back and forth from Stage 1 – denial, to stage 2 anger (when he thinks about the betrayal he experienced) or to Stage 3 bargaining (as he attempts to negotiate plans for another visit) and back again to denial. He does not make it to stage 4, emotion.

Findings also show how Charles makes use of para-linguistic cues or intellectual shifts during his narrative, to distract from the discomfort of these preconscious sensory experiences (Torre & Lieberman, 2018). The following examples are identified solely for instructional purposes, not to make definitive claims. Question marks after words like Anger? represent speculation not an assertion.

Preconscious Microprocess of Embodied Cognition

- **Fear** – When Charles’ daughter saw him for the first time in two years and did not know him, recognize him, or show interest in knowing him, Charles stated, “That was **hard.**”

Charles selects general or neutral terms such as “hard,” “difficult,” or “painful, to distract from acknowledging the sensory unsettling that might come from speaking the actual words fear or anger (Torre & Lieberman, 2018).

Charles acknowledged his use of paralinguistic techniques to avert his attention from sensory disruptions. By focusing on the construction of details of the narrative rather than his internal “feels,” as he calls them, he distracts (Kircanski et al., 2012) from the potential sensory experience of the disorienting dilemma.

- **Fear** – Charles’ resistance to “going there,” speaking to his fear or anger keeps him stuck in Phase 1 of the transformative learning process.

Not once during the interviews does Charles speak directly to feeling fearful or angry regarding his experience. He did, however, mention being anxious (fearful) about his next trip to see his daughter, indicating a stuck position between fear and anger.

- **Fear?** - Subsequent to his estranged preschool-aged daughter throwing a rock at him, Charles experienced an immediate freeze response and lockdown of embodied cognition. He stated,

I was physically frozen when that happened. I was cold. I was, my body was tight. I couldn’t say anything. I, I was, if, if tears could be words, I would’ve had plenty. I didn’t, I was in shock. I was, I was in actual shock. I was just completely caught off guard.

The slow, again, repetitious, halting paralinguistic cues indicate a level of distress (phantasia) as he recalled this moment during the interview, forcing a continued lock down of embodied cognition. He later acknowledges this part of the interview was challenging, however, presents a sense of skill in being able to control the sensory experiences, reporting “even though I could contain them, they were nevertheless present.”

- **Anger?** – “If I can't be important to her as a person, at least I can just pay for stuff [laughing] “Like, oh, you threw a rock at me, and you told me I can't be in your life, but here's \$5,000, you know?” (Sarcasm?)
- **Anger ?**– Charles’ stated it was “upsetting” (sub-level of anger?) that his ex-wife did not facilitate introducing him and their getting to know one another. (Minimization of anger?)
- **Anger?** - When Charles returned from abroad, the people in the community he believed to be genuine friends implied that he was not a good father and needed to go on with his business. Charles used sarcasm to invoke their betrayal as friends stating, “Wow, would that, I could, but I can't. So, um, the, and I realized there is, you know, cry me a river, but there's not a lot of support for fathers who do wanna be part of their family's life, who do wanna be great dads.”

Notice here the paralinguistic cues “ you know, um, the, and I,” indicate some difficulty putting his words together, possibly because the *preconscious* felt-sense experience was surfacing, and he was trying to avoid the feeling.

- **Anger?** - Findings show another use of paralinguistic cues Charles uses to distract from sensory experiences. This is the use of metaphors, like those he used of “throwing stones, a trojan horse, or standing on thin ice.” These metaphors neatly

“wrap up” the experience intellectually and distract one from falling prey to the uncomfortable feelings associated to the experience.

- **Lockdown of embodied cognition** - “The feeling of **petrification**,” is a reference to a stone-like or paralyzed body state, not an emotional feeling. It more likely represents the freeze response identified in trauma.
- **Lockdown of embodied cognition** - “I don't really have words for that part of it, honestly. I still, I still don't.” (Incapable of sensemaking.)
- **Lockdown of embodied cognition** - “If tears could be words, I would’ve had plenty. I didn’t.” (Incapable of verbalizing his experience.)
- **Comfort Zone** - Charles stated, currently he chooses “just to be functional and get up today and do the things I have to do.” His body/mind knows the sensory experience he is *willfully* or consciously avoiding and that it needs attention; however, he admits, he prefers to avoid it for now. Sitting in a comfort zone can be a sign of resistance (Mälkki, 2019), inhibiting the felt-sense movement to the subsequent stages of the grief process to unlock embodied cognition.
- Sitting in a comfort zone to avoid sensory experiences, prevents Charles from looking at the disorienting dilemma intellectually and transitioning or shifting from identifying with it as subject—immersed in the experience—to object—able to understand and learn from the experience (Kegan, 2000). Movement to and through the *preconscious* sensory microprocesses would allow him to move to the *conscious* microprocesses to grieve his experience and clear the path to the essential phase of critical reflection (Berger, 2004; Boyd & Myers, 1988; Kessler et al., 2009; King, 2003; Mälkki, 2011; Sands & Tennant, 2010; Taylor, 1997, 2000, 2007; van der

Kolk, 2015). This clearing would then allow movement to the subsequent phases of the transformative learning process, and the eventual development of a new frame of reference or perspective about his experience.

Conscious Microprocesses of Embodied Cognition

- **Sadness?** - Charles used laughter to deflect or lift his internal tone. When discussing the traumatic reaction his friend experienced, Charles chuckled lightly about how managing his own trauma kept him from helping his friend with his trauma. And when talking about something challenging, such as not being able to fulfill the promise of reproduction, or when he acknowledged he was purposely hiding the “boxes,” he let out a stifled laugh. The use of laughter helps divert the mind from the sensory experiences and holds the experience subject (Kegan, 2000), preventing him from recognizing his responsibility in turn.
- **Sadness?** – “I felt this kind of shame that I hadn't really done the thing the heir of the family is supposed to do.” Shame is an intellectual conceptualization of having done something wrong, with an underlying experience of possibly fear, anger, or sadness.
- **Sadness?** – “I would've felt better” if the rock had hit me, because then “at least I would've had physical pain to recover from” (rather than the emotional pain he is not willing to speak directly to).
- **Sadness?** – It was just “this general feeling [vague] that, that was not, it could not be, um, you know, categorized (attempt to intellectualize).” Unable or unconsciously or consciously unwilling to identify a specific feeling of sadness?
- **Sadness?** - “In terms of things making me feel uncomfortable during this interview, when I was telling you about the, the rock throwing, um, that did evoke some pretty

strong emotions, which I can contain, but they were present.” Use of a broad term, rather than identify the actual emotional experience.

- **Sadness?** - Charles stated *the thought* of having had an illusion about the relationships he developed abroad and how “ephemeral and circumstantial” they actually were, was depressing. Here his focus on *the thought* as depressing and not his experience of being betrayed by these relationships, intercepts the emotional experience.

- **Sadness** - Charles understands he needs to

“say ... goodbye [i.e., grieve the loss/feel the sadness, the first *conscious* microprocess of embodied cognition and Stage 4 of the grief process] to a version of myself that can’t be anymore” and “embrac[e] the idea that there’s going to be a new me. Focus on embracing an “idea” not the emotion of sadness.

To embrace the idea, he also understands he needs to

“let go of any agency and just allow myself to go limp” and be in [sit in, linger on] the experience because “it’s going to get worse before it gets better,” and “if I try to fight it or prevent it, it’s going to be prolonged.”

He is unable/unwilling to identify what “it” sadness is? Charles hopes “I can make that version [of himself] better.” However, without clearing his sensory or emotional experiences, Charles deprives himself of the opportunity to come to an understanding of what he needed to learn from these experiences.

- **Disappointment, fear, anger, or sadness?** - Charles also noted “I’m feeling *like* I’m a failure.” As suggested in the clarification of terms explained in the first chapter, the use of the words “like” or “that,” directly after the term “feel,” indicate, once more,

an intellectual pursuit to distract from a sensory or emotional experience. The *feeling* underlying the *thought* of being a failure is likely disappointment, fear, anger, or sadness. Thus, stating “I’m feeling disappointed (fearful, angry, or sad) about the thought of being a failure or believing I have done something wrong” would more clearly identify “the feeling.”

Influence of the Stoic Value

- While the influence of the Stoic philosophy does not directly seem to be an influence on Charles’ behavior during his interview, it is apparent he is aware of the stoic value, as he recognized his daughter “return[ing] to being more stoic and reserved” when her mother came home.
- In a follow-up discussion session, Charles acknowledges his resistance to the sensory and emotional experiences may be due to the influence of the stoic value. He acknowledged this value is embedded in Western culture and the concept “Be strong and carry on” is one he has internalized.
- Charles also mentioned his parents were both from the “silent generation” [when children were expected to be seen and not heard]; however, he noted this group is also considered the “greatest generation” [characterizing the “resilience” of those who lived through the Great Depression]. Resilience might not only imply strength of character, but it might also imply endurance of pain without the expression of emotion.
- Charles recalls his father as “a sensitive man” and his mother as “an exercise in numbness.”

- Charles recalled being “called out by peers” during childhood, for expressing emotions.
- Charles acknowledge his awareness of how leadership positions tend to be denied to those who are feminized because of “emotional” behavior, indicating this as a sign of weakness. He stated he is willing to be vulnerable to connect with others, however, he also acknowledged he is “choosier about who I share with.” “In terms of numbing, it is not my default to not share, and thwart the cascading effect of being asked questions like a trojan horse” (metaphor), however, he does maintain a sense of cautiousness.

In summary, findings show it is possible to avoid the felt sense experience of embodied cognition willfully, maintaining a lock down of embodied cognition, and stalling movement to subsequent phases of the transformative learning process. Charles has experienced a number of traumas in his lifetime and admits to having become very skillful in using a variety of tactics to forestall these experiences. Unlike Gigi who runs full force into her sensory experiences, he is currently unwilling to move into these natural experiences to eventually grieve the losses, thwartings, and disappointments of this (and other) traumas and allow a successful developmentally transformative learning experience.

As Charles continues to dwell at the back door of Phase 1 of the transformative learning process in a *comfort zone*, avoiding the *preconscious* microprocess experiences and movement through a grief process, the label “hijacked” (van der Kolk, 2015, p. 59) seems to best describe his experience.

Table 14 represents how Charles made statements to avoid the *preconscious* sensory or *conscious* emotional experiences of embodied cognition, the grief process, and phases of the

transformative learning process. I draw attention to these vague statements, primarily, for instruction and to help recognize what stage or phase someone might be in to help facilitate further movement. Notice he stayed out of the column of emotion/sadness consistently.

Table 14. *The Intersection of Philosophical and Theoretical Concepts (Charles)*

Embodied Cognition Microprocess	Felt Sense/Fear (Informs)	Anxiety/Anger (Motivates)	Flocking (Locates Safety)	Emotion (Sadness)	Intellect (Thought)
	“I was physically frozen, I was cold, my body was tight , I couldn’t say anything. If tears could be words, I would’ve had plenty. I didn’t, I was in shock.”	“... cry me a river , but there’s not a lot of support for fathers who do want to be part of their family’s life, who do want to be great dads.”	“I quickly get into the mode of looking for the exits . What’s the fastest road? Can I predict where the, where the catches are going to be?”	“This interview did evoke some pretty strong emotions, which I can contain , but they were present. I have more work and need time and space to get all my feels back .”	“ I couldn’t put my finger on something very specific that I had done wrong to cause it.” “It was not without meaning that I was not being given the respect ... that was a huge message ...”
Transformative Learning	Disorientation (Fear)	Edge-emotions (Anxiety/Anger)	Comfort Zone (Safety)	Grief Process (Sadness)	Transformation (Thought)
	“I feared that I had really lost my daughter.”	“I worry if she is going to pull the football out from underneath me again.”	“For the past year I have been emotionally unavailable .”		
Grief Process	Denial	Anger	Bargaining	Sadness/ Depression	Acceptance
	“I wasn’t really angry ; I was past being angry at my ex and her family.”	“It was upsetting It was “upsetting” that his ex-wife did not facilitate introducing him as her father	“Strange sticking up for myself, while hating myself.”		
Stoicism	Phantasia	Action/No Action	Will		
	“It’s like every wire was cut and frayed, uh, in my emotional circuitry.”	“I was at a loss for breath, left the site in silence.”	“I don’t want to see , remind myself of, what’s in what boxes. I know that they’re there.”		

Fighting for My Life

This is ridiculous. Um, and yet at the same time, I am trying to fight for my life. I mean, it really felt that serious, that this was a life-or-death matter, that I, it was a circumstance that I had been thrown into that I had no warning about. That was, you know, I was being accused of something heinous, of, of hurting my child.

—Marilyn

I chose to present Marilyn's experience of a disorienting dilemma third since her experience parallels Charles's, with the location of meaning still trapped in the *preconscious felt-sense* experiences of fear and anger, in a lockdown of embodied cognition. Both held their experiences subject (Kegan, 2000); however, while Charles admitted to avoiding any reflection on his experience for now, Marilyn unconsciously averted reflection by "forgiving."

An additional factor contributing to Marilyn's continued residence in the preconscious microprocesses of embodied cognition involves a "blind spot" (Kegan & Lahey, 2009, p. 22) holding her subject to (unaware of her entanglement with) her experience. Marilyn reported she endured abuse from her mother as a child. As a teenager, both parents decided to become psychotherapists and as a result of their education, realized how dysfunctional their family was. In turn, they secured residential treatment for each member of the family. As a result Marilyn acquired some understanding of psychology, and during the follow-up session, she discussed her realization of how this may have interfered with her capacity to authentically examine her disorienting experience.

Marilyn's Narrative

Marilyn, a 51-year-old White female, has lived in the southern part of the United States "a long time." She identified as having a middle-class background, making a living as an

administrator. Marilyn comes to the interview to share her lived experience of being reported to the Department of Family and Children Services (DFCS) for spanking her 8-year-old daughter, who was subsequently removed from the home.

Marilyn's daughter was in the fourth grade and had just begun attending a private Christian school. Marilyn and her ex-husband shared a 50/50 custody agreement without child support. Toward the end of a visit one weekend, Marilyn stated her daughter's behavior became "defiant and very disrespectful," and although she tried "a number of tactics to encourage her to behave differently" (i.e., time-outs, loss of privileges, heart-to-heart talks, rewards with her favorite stickers for positive behavior), nothing seemed to change. She stated this behavior was going on for a while, and she attempted to get her ex-husband's help in "correcting" their daughter's behavior. His more "laissez faire" model of discipline, however, did not help much. On this day, Marilyn's daughter's behavior was getting out of control, and although Marilyn warned her of a spanking, the negative behavior continued.

Previously, Marilyn used spankings sparingly, by means of a few swats with her hand. The church she attended a few years earlier suggested that parents "correct" their children using a specific technique for spanking—that is, using something other than one's hand and giving one swat per year in age, until about age 10 or 11. The church also recommended, before correcting one's child, that the parent make sure the child understood why they were in trouble, then apply the correction and, afterward, hug them and tell them the parent loves them. Marilyn chose to follow these guidelines exactly because she valued what the church suggested, wanted the correction to be done in love, not anger, and hoped this would result in a change in her daughter's behavior:

I started by asking her if she knew why she was in trouble and why I needed to correct her behavior. She said yes. I proceeded to spank her in a controlled manner, with a ping pong paddle and gave her eight swats correlating with her age. Afterwards, I hugged her and told her I loved her, and to let's have a better afternoon. She agreed.

Marilyn stated she was very careful, wanting only to “correct” her daughter, not hurt her. She understood “corrective behavior” as a means of encouraging a change in behavior. She hoped this technique would help her daughter think about pausing before choosing a behavior she might get in trouble for and choose a rewardable behavior instead. Unfortunately, later that day, a second warning became necessary, and again Marilyn advised her daughter of the consequences if she did not change her behavior and make good choices:

This time, my daughter said she didn't care, and I spanked her again, using the same format as before. At paddle eight, she let out a sharp shrill, and I stopped immediately. I hugged her for a few minutes, and we both agreed to call a truce for the evening.

Marilyn's daughter came to her later to tell her she had red marks on her bottom, and Marilyn stated she “dismissed her” with a comment about how “maybe she would remember better next time.” She called her ex-husband and told him what happened and how she handled the situation. She “begged him for help and support to encourage” their daughter to be respectful.

The next day, when her ex-husband picked up her daughter from school, she told him what happened. When they arrived home, he checked her bottom. Later, his wife, a licensed RN and pediatric nurse at the hospital, waited until her husband was busy and took his daughter to see a pediatric physician friend of hers. As a result, on her way to work on Wednesday, Marilyn received a call from DFCS informing her she was under investigation for child abuse, and they were removing her daughter from her home:

When my daughter was taken away from me, it was like she had died. It was like suffering the death of a child in a very real sense, even though she hadn't died. I experienced deep, deep heartache, pure anguish, utter *disbelief* [denial], and *fury* [anger] at her dad and stepmom.

At the time, Marilyn was in a serious relationship with a man she loved and with whom she planned to “spend the rest of her life.” He had a son the same age as her daughter, and she loved this child as well. Their usual routine for Wednesday evenings was to have some friends over. She stated she shared what happened with her friends, and they all thought it was a big misunderstanding. That night, even with all the assurances, she “lay in bed crying inconsolably” with her boyfriend lying next to her all night.

The next day, her boyfriend went to work, and she went to see the pediatrician who had seen her daughter. After a short wait, she was escorted into an office with the pediatrician, her daughter’s regular pediatrician, and two others who were asked to witness the conversation. The physician said he filed a report with DFCS because he decided the spanking “had been pretty bad,” adding that she was the second person he had turned into DFCS in his career. Her daughter’s pediatrician verified she had never seen any prior evidence of abuse. Sobbing, “I admitted I had no idea I hurt her and was begging him for advice on what to do.”

After calling and asking a strong Christian friend for counsel and a prayer and still thinking this was all a big misunderstanding, Marilyn stopped at the DFCS office. She stated, this would be her “biggest mistake.” Marilyn asked to speak with the caseworker. She stated the case worker was “cold and insensitive” and informed Marilyn she was being investigated for child abuse. The investigator read directly from the report that stated her daughter “regularly shows up at her dad’s house with bruising, open lesions and abrasions.” Marilyn began sobbing

again. The caseworker asked her “with a brutal tone” about her story, and Marilyn relayed it, only to discover she was being recorded. This would be the only interview DFCS had with her.

Marilyn also went that day to the school her daughter attended, spoke with the elementary school principal, and explained what happened. The principal said she already knew because

DFCS came to the school, pulled my daughter out of her classroom, interviewed her in a conference room, made her pull her pants down, and showed them her bruises, took pictures of her, all without my consent or my knowledge; I did not receive a single phone call from her dad or from her stepmom or anyone else. All of her teachers knew. Parents of her classmates knew. One teacher even made an announcement in my daughter’s class that he is required to report any abuse. I was humiliated and ashamed, and so was my daughter, who did nothing wrong. It was difficult to show up at the school after hearing the whispers and seeing people intentionally move away from me. Life was very tough for a long time.

She left the meeting and immediately called a friend, who suggested she hire an attorney. Marilyn then called an old friend from high school, who referred her to his partner because he himself attended college with a DFCS attorney and needed to recuse himself. He believed his partner could help her and assured her that everything would be fine. Her friend came with her to the office to support her while she waited to meet the attorney. When they met, the attorney “did not seem overly concerned and thought he could straighten this out.” She left the meeting and went home.

Later that afternoon, her boyfriend came to the house to inform her that he could not stay in the relationship anymore. He was concerned about what his son’s mother might think, and as

he was an obstetric gynecologist (OBGyn), he was concerned about his reputation. He collected his things and left. She called her friend, who again came over to support her. After ending the call, Marilyn stated she “collapsed in the kitchen, lay on my face, and sobbed. I couldn’t breathe.”

She said she felt terror (fear/phantasia), “like being trapped and knowing inescapable torture was coming any second.” She felt anxiety-like horror (fear), reflecting, as if on a hamster wheel, on what she had done. “Why was this happening to me/us?” Much of the *anger* that felt like rage came in the days and weeks after. “How could they do this to me? What had I done so wrong? How could I have done this? Why was this happening to me/us? The feeling was so deep and painful, my heart physically hurt.”

It took 4 months for all of Marilyn’s visitation and parental rights to finally be reinstated. Although she paid the lawyer a thousand dollars because he was kind, he was not helpful to her case at all. She stated he made a couple phone calls; however, because she did not face any charges, she did not really need a lawyer. She stated, the rest of the story is me just trying to figure out what just happened and how to, you know, navigate the, the DFCS world.”

Marilyn ultimately settled on believing that her ex-husband’s wife secured the aid of a fellow medical professional to file the DFCS report for them, so they would not appear vindictive towards Marilyn about her decision to put their daughter in a private school.

Marilyn also learned, eventually, about several questionable details regarding procedures performed by DFCS. Of primary concern, she discovered DFCS makes money only when they substantiate a case for abuse. She also determined that their investigations were deficient because the case workers never called any of the character witnesses she gave them. Lastly, she learned that professionals working for DFCS are never questioned about the accuracy of their reports,

nor do they suffer consequences for false testimony. All these details made her distrust the system.

Believing she was “a victim of a system that I had no control over” and having a strained relationship with her daughter, she stated, all she knew was “that day I lost my child. I lost my fiancée, and I lost his child. My entire life disappeared. And then I had to fight to get everything back.” It would take her months to satisfy a “laundry list” of requirements before she would be awarded custody. She was required to attend counseling, attend several hours of anger-management courses, read parenting books, and discuss with the school counselor homework assigned in a workbook.

Marilyn admitted she did not really learn anything new from all the work she was required by DFCS to do, as she already learned it after attending a 30-day in-patient treatment program for codependency at 15 years of age. Her parents previously in education, changed careers when she was fifteen, and became licensed counselors. Their work brought them to the eventual realization their family was dysfunctional, “had a lot of unhealthy ways of relating and behaving,” and the parents decided the whole family needed treatment.

Marilyn stated the treatment program “saved her life. I learned about managing my emotions, and my little toolkit came from that experience.” This toolkit contained 12-step literature, knowledge about the disease of alcoholism, a sponsor, a daily affirmation book, slogans to reinforce her learning, reminders to treat herself with respect, reminders that she had the choice to “be/stay mad, sad, hurt, angry, etc.,” and a reminder to think before reacting or speaking.

Marilyn reported briefly, during the interview, of her parents’ struggle with addiction and her mother’s abuse as she was growing up. I asked her to tell me about their relationship. She

stated that she loved her mom and “always wanted her to love me back and not hurt me.”

Marilyn felt disappointed her mother was never able to change because instead of “beating me up with her fists, now she does it with words.” Sometimes the relationship was loving, however, she reported, her mother was still “hurting herself [with alcohol] and has never healed from her own pain.” Although Marilyn wished the relationship were different, she stated she understood and had compassion for her mother.

Marilyn never used spanking as a form of correction again. She stated she became fearful “to show love to the child that I had, that I deeply love.” She wanted to “give her hugs or, you know, hold her hand if they were in a store, or snuggle on the couch while watching a movie,” which was their usual practice. Regrettably, Marilyn was so afraid for “her to be near me because I did not want there to ever be anything that could possibly be construed as doing the wrong thing.” She stated she had to remind herself to hug her daughter “because she's feeling just as bad as you are, and she needs some reassurance.”

Marilyn stated her daughter was and is “unbelievably traumatized to this day. I am traumatized to this day.” She did not recognize having had any experience of transformation as a result of the disorienting dilemma. “The experience was very self-destructive. If there was ever a point I wanted to die, it was then. I literally had to tell myself to breathe every day.” Marilyn felt sick, barely ate or drank anything, and lost seven pounds in a week. She said she tried to live one second at a time, often feeling like she was on the edge of a mental breakdown. She would talk herself out of the breakdown because she did not want to end up in a mental hospital or be deemed incompetent to parent. She also would not kill herself, she said, because she did not want to leave her daughter alone and did not want her death to be the last thing her daughter remembered.

It took me every bit of 8 years before I let my guard down a little bit and, you know, could talk about it without it being super emotional. I go about my life differently; I value people and my life in a different way than I did then. And I think I live in a more deliberate and purposeful way, even though I still feel like I live more or less in a shadow, and I still hide. I would really like not to be in that place. I miss me. And it's been a long time, but I miss that person that I was; I was very successful professionally. Although I continue to be hypervigilant, since these interviews, I am becoming aware of some disappointment (anger and sadness) about this experience. I have spent a lot of time praying, a lot of time, you know, believing that, you know, God will right the wrong and restore the relationship, which he has. Although I have absolute pain over the destruction and loss of relationship and time with my daughter over the years, I have a great relationship with my daughter today. I continue to fight to restore a relationship that should never have been broken. My chest hurts and is tight while I am thinking about this, and my eyes are tearful. We are best friends. She lives in the same apartment complex that I do, and we see each other or talk almost every single day.

Findings

When an effective *action* is taken in response to the microprocess of anger, the resolution of the disorienting dilemma unlocks the *conscious* microprocess of embodied cognition, engaging the *emotional* and *intellectual* functions of cognition. Having both conscious microprocesses working together supports the potential for a successful transformative learning experience. Findings indicate Marilyn has yet to identify the most effective course of *action* for resolving the *preconscious* sensory experiences of fear and anger, due to a continued lock down of embodied cognition.

Marilyn indicates she still, 14 years later, “continues to feel *disappointed* [sublevel mixture of *anger* and *sadness*]” about her experience, as unresolved sensory experiences, specifically, the preconscious felt sense microprocess of *anger*, remains stored in the sensory historicity of her body (Barrett, 2017a) and continues to be triggered long after the experience took place. (van der Kolk, 2015).

This re-triggering of the preconscious felt-sense experience of *anger* will continue to interfere and stall the movement out of phase 1 of the transformative learning process. Until she processes the persisting energy of anger effectively, she cannot fully move into the *conscious* experience of emotion (*sadness* – stage four of the grief process). This movement would allow physiological regulation and healing and support intellectual functions of cognition to more effectively close this experience.

Preconscious Microprocesses of Embodied Cognition

- **Fear** - Initially, Marilyn’s disorientation and felt-sense experience of fear clearly indicates a lockdown of embodied cognition regarding this experience:

When I received the call and the person told me I was being reported for child abuse, I felt a horrible sickness in my stomach. I felt anxious [fear] and fearful to the point of tears. Although the call was not finished, I don't remember hearing much else that was said. My *mind was racing* to figure out what was going on and a way to fix it. The world was going, the world was still going on around me, but I was *deaf and blind* to the events. It was like I went into a tunnel *separated from reality*. The only thing I could focus on was this terrible event, protecting my daughter, and the unbearable mental, emotional, and physiological pain I was experiencing, at that moment.

This snapshot indicates that the felt sense microprocess of *fear* was fully engaged and that she was in Stage 1 of the grief process, *denial*, as she spoke to being “deaf and blind to the events” and “separated from reality.”

- **Anger** - Marilyn’s **eventual movement to *anger*** (as a preconscious felt-sense experience and Stage 2 of the grief process) about this accusation was expected because, like Charles, she was impacted by several layers of loss. She believed she was betrayed by her ex-husband and his wife, was reported by a pediatrician for child abuse, was shamed by the principle of her daughter’s school, was treated with hostility by DFCS, lost her fiancé and soon-to-be stepson, and, most importantly, endured the severing of the relationship with her daughter.
- **Anger** was still evident several times during the interviews when she stated she had to *fight* to get everything back. “Fight” is one of the three action responses in a disorienting dilemma (i.e., fight or flight) motivated by *anger*. Although she does not mention having been angry as she discussed the event, Marilyn demonstrated a willful fight response motivated by anger through the three immediate actionable responses of visiting the pediatrician, the school, and the DFCS office, in an attempt to find vindication. Walking into the DFCS office,

I felt a horrible sickness in my stomach. I felt anxious [fear] and fearful to the point of tears. My stomach was in knots, and I could barely breathe. I tried to remain calm as I spoke to the case worker. However, her language was inflammatory and accusatory. I found myself deep in *defense* mode, trying to get her to understand what I was explaining without already assuming I was guilty. I was getting more and more *exasperated* [movement to sublevel of anger] as it was

clear that everything around me was moving at warp speed, and my world was spiraling out of control. I couldn't collect my *thoughts* long enough to figure out the next steps. I felt a sense of doom and death envelop me [she does not refer to an actual sensory or emotional experience]. I wanted to die. Um, so then, when I left DFCS, my attempt to secure a sense of *safety*, I called an old friend.

- **Anger** - Although Marilyn did not mention being angry, she did mention “sobbing” several times early on during this incident. As language was important in this study, “sobbing” raises a question about how she might define this, and whether it was a sensory (fear, anger) or emotional (sadness) experience. I asked Marilyn to tell me more about the experience of sobbing. When she first replied, she stated “possibly a combination of *sadness* and *anger*.” On further reflection, she changed her description to “perhaps it was more *anger*, about a *hopeless* [thought], of being out of control.”
- **Anger** - Marilyn stated her *anger* was more about her inability to find vindication to the situation, and the sobbing was more of “a dumping,” of sorts, of all the energy from the fear, anxiety, and *anger* she experienced. As she provided no further clarification indicating an experience of sadness in her description, it appears she was experiencing *anger* when sobbing.
- **Anger** - Marilyn never found vindication from any of the actions she attempted. Even after completing the fourth actionable response, the educational requirements, she was still unable to resolve the situation. She stated, with a hint of derision (a thought to belittle with an underlying tone of anger), the educational requirements were a

useless endeavor because she already knew this information (indication of a “blind spot”?).

- **Anger** - Marilyn asserted she had “to fight” over the past 14 years to repair the relationship with her daughter. She believes it is repaired but still believes it should never have been broken. She continues to be triggered by this thought and also the thought she and her daughter are “still traumatized to this day.” This indicates a continued lockdown of embodied cognition, as she continues to experience the preconscious microprocess of anger has not fully moved to the *conscious* microprocess of emotion.
- **Anger** - Marilyn continues to focus on the mismanagement of her situation by others and a continues, with a strong desire, to understand why her ex-husband and his wife felt the need to do this to her. She remains primarily ensconced in a position between denial and anger indicating a continued oscillation among the preconscious microprocesses as she bargains (third stage of grief process) as she continues to attempt to settle this experience.
- **Flocking** - Although Marilyn states she took responsibility for her actions (“because of course, I did it”), she is still looking for vindication and continues to epistemologically hold this experience subject (Kegan, 2000).
- **Flocking** – Marilyn continues to maintain a sense of safety in holding this experience intellectually by affirming she has forgiven her ex-husband and wife. Converting the experience to *thoughts* she needed to let go of, allows her to turn a blind eye to her responsibility in this event, creating a false sense of acceptance (the last stage of the grief process).

Kegan and Lahey (2009) discussed the concept of a “blind spot” (p. 22) blocking the construction of reality and affecting the adaptation of new information with old. Findings show, by intellectualizing (forgiving), Marilyn circumvented fully processing the edge-emotions of *disappointment* (level of anger) due to what she admits to be an expectation of vindication. Not having fully processed the preconscious microprocesses of anger, maintains the lock down of embodied cognition and impedes her ability to move through the conscious experience of emotion (sadness) and grieve the event to move out of Phase 1 into Phases 2 and 3, self- and critical reflection. This processing would then allow her to find the source of her blind spot and, in turn, develop, adjust and adapt to a new frame of reference.

In summary, findings show an unconscious lockdown of embodied cognition can persist if the *preconscious* microprocesses and the *conscious* emotional microprocess of embodied cognition are not fully processed. Marilyn continues 14 years later, to linger primarily in a preconscious microprocess sub-level experience of *anger* (disappointment teetering in and out of some experience of sadness) regarding this experience, as she has not yet received vindication for what happened. She continues to respond to this event with a less advanced developmental stance holding the experience subject, by focusing on the behaviors of others and unable to see her part in and responsibility for what happened.

Additionally, she is unable to unlock embodied cognition for this event because the anger she continues to speak to of having to “fight” (anger) and of still being “traumatized” hold her suspended between the preconscious and conscious experiences of embodied cognition. Like Charles, this is keeping her from processing the preconscious experience of anger fully, inhibiting her move to sadness and through the rest of the grief process. Although she teeters briefly in and out of what seems to be sadness, she has not yet been able to fully complete the

grief process and find a safe place to land (comfort zone) to move out of the first phase of the transformative learning process.

Kegan's (1979) phrase "hanging in the balance" (p. 11) seems to aptly fit Marilyn's situation.

Captured by an Illusion

Later she realizes, "where the grieving was, it was in the loss of what I thought I had. That is what I have to go back to, I must need to mourn again, the loss of that. And it's OK to mourn and be sad about it, but not forever."

—Sarah

I chose to present Sarah's narrative fourth because the interviews seemed to nudge her past the stuck point of the *preconscious* sensory experience of anger into the *conscious* emotional experience of sadness of embodied cognition, culminating in a transformative learning experience. Sarah's disorienting dilemma represents an eventual reckoning with the fallacy of an ideal, the American Dream, and how she had been captured by the illusion she thought she was living.

Sarah's Narrative

Sarah, a 46-year-old female, shared her lived experience of coming to a jolting awareness about the end of her 20-year marriage, when her husband, without prior notice, informed her he filed for divorce. At this time, she was thrown into Phase 1 of the transformative learning process—a disorienting dilemma, encountering the preconscious sensory experiences of edge-emotions/phantasia—and entered the first stage of the grief process—denial.

Sarah acknowledged having several insights while preparing the narratives for the interviews. Early in the first interview, she mentioned her grief about the loss of the family she

always thought she would have. Later, she realized, “Where the grieving was, was in the loss of what I thought I had.” It seemed Sarah’s disorienting dilemma was not about having lost what she had always dreamed of having in a marriage, but about having spent 20 years in denial, thinking she had achieved the dream.

According to Sarah, she and her husband Bob possessed the qualities necessary for building what many espouse as the American Dream. They were high achievers through their secondary education experience, attended the same college, and eventually met participating in social activities and clubs offered by the college. Sarah felt confident he “fit the bill” for what she was looking for in a partner for life and “staked a claim” by asking him out first. Bob accepted her invitation, and they began spending more time together. During the summers, living some distance from each other, they “wrote letters, visited each other’s hometowns, became very close, and spent the next 3 years together as a couple.” They decided to marry 1 year prior to Bob’s completion of his degree.

Early in the marriage, Sarah became aware that “something wasn’t right.” She stated he had few household chores and responsibilities but would either not do them or chose inconvenient times to get them done. Sarah was *confused* (intellectual) and *frustrated* (sublevel of anger) about his behavior. She just “wanted things to look good on the outside” to uphold the ideal of the American Dream. She “assumed it was normal, that men wanted to support their families and do tasks around the home.” Often, she informed him of “needing support from a partner, and he would agree to do better but would be back at the old ways within a couple of months.”

Sarah carried on as a stay-at-home wife while he worked professionally in the community. About 5 years into the marriage, they had a daughter and, four years later, a son. By

this time, Bob gained some weight and began to “throw himself into” long-distance running. He joined an exercise program, and within several years was running marathons. Sarah supported his activities and began to involve herself in community organizations and religious activities that connected her with other mothers in the community. At home, she considered herself the “organizer for vacations, activities, sports, just all the things.” Bob did not involve himself in any of these activities. Sarah thought “this initiated the downfall of the marriage,” as he began avoiding the family more and more.

Eventually, Bob moved to a different department at work, making it necessary for him to be away from the family more often. Sarah stated she “felt like a robot, had no emotion,” doing “all the things.” She began expressing her displeasure to him, and he would simply “turn it around and make me feel like the bad guy.” All this time, she had no one to talk to about what was going on, and her resentment and anger grew:

I couldn't make sense of my experience. I felt lost. Everything I thought I knew about marriage was not happening for me. Everything I thought I knew about what a husband should be was not happening for me. The more I fought to get him to behave how I wanted; the worse things got. And it overflowed into all areas of my life. Children, friends, volunteering. I could not see a solution or a path forward. I researched and tried to find a solution, and I couldn't. Even when we sought counseling and eventually medication, the problems remained. This brought me to hopelessness and despair [intellectual pursuits].

Sarah continued to research and eventually found a mindful journaling class and started working with a therapist. Unfortunately, the therapist did not offer any perspectives or advice, but just listened and commiserated. Everyone Sarah tried to talk to at the time seemed more

concerned about how *angry* and *hurt* (*sublevel of anger*) she was. She acknowledged now that she held her experience subject (Kegan, 2000) “complaining and playing the victim role,” but this was because no one ever seemed to have any advice to offer.

Sarah continued exploring blogs and articles and discovered others who were discussing their unhappiness with spouses. For the first time, she became aware she was not alone in having a husband who did not participate or help in their relationship the way she thought he should. At this time, she also began attending Al-Anon meetings and discovered her enabling behaviors and learned she “needed to stop rescuing him and establish boundaries. I had to stop doing for him what he could do for himself.”

Sarah continued to practice what she was learning, and about a year later, recognizing the need to stop looking for validation from others, she began making choices and setting boundaries for herself. She decided to take the children on a trip without him. Despite his objections, she felt secure in her decision. Later, Sarah took two more trips with him, verifying for herself that when with him, she subjected herself to “a lot of stress.”

One summer, she attended a function with her daughter and a friend who had recently divorced. Sarah remembered “vividly, it was the first time I had a real conversation with another person about the unhappiness in my marriage.” She decided to expand her boundaries. Later that year, she made plans to celebrate her father’s birthday in a very special way. Bob was made aware of the arrangements for this celebration; however, when it was time to go, he did not make himself available, and she “left the house without him.”

Therapy helped her begin understanding that she was unable to change her husband, and she realized that reminding him that it was time to go and trying to get him to spend time with the family was counterproductive. “And that, again, stands out in my mind as a very big moment

for me, um, of just the reality of what was happening.” During the end-of-year holidays, she took the children on vacation without him, and at Thanksgiving, she and the children spent the holiday with her family after “specifically asking him not to go”

As Sarah continued to grow, the following year, she asked Bob to attend couples counseling. He agreed, though Bob’s only answer to the therapist’s questions was “I don’t know.” The therapist eventually suggested Bob stop couples counseling and go for individual counseling because apparently he had some personal issues he needed to deal with first. She believed these needed to be dealt with before marital counseling could be fruitful. Bob found a counselor for himself and began taking medication. In due course, they sought marital counseling, but this time the therapist was young and very ineffective, and they stopped seeing her after about a year. During this time, Sarah began taking medication herself because nothing was changing.

The next year, Sarah decided to locate a third marital counselor to help them with co-parenting issues. Since Bob did not seem to want to comply with the work assigned to them by this therapist and since he “continued to be so uninvolved with the family,” Sarah discontinued this therapy after a year. Bob continued his medication regime for ADHD, anxiety, and depression, and Sarah continued looking for a therapist for herself with whom she could build a rapport. Finally, she found someone who was “life changing.” She continued taking the medication because it brought her some relief from the anxiety, but unfortunately, she began to experience some weight gain and an “extreme lack of will power.”

Several months later, without a prior discussion, Bob informed Sarah he had filed for divorce. She stated she was shocked and crushed, not because “I loved him and was sad, but because it wasn’t my idea or my choice; he took control away from me.” Bob’s divorce filing

also made her begin to think she must be “the monster he always said I was.” Even though the philosophy of Al-Anon supports owning one’s responsibility for the events that occur in their life, Sarah admitted she still had not conquered the victim mentality. Subsequently, Sarah was notified by an anonymous person (and it was verified later by a reliable source) that Bob was having an affair. She barely had a chance to catch her breath when the divorce became final, and COVID-19 shut down the world (phantasia).

Sarah went into “fight [*anger*] mode and made my survival plan.” She hired a divorce lawyer and began the process of living her life as she never had before. Sarah was offered the first job she applied for, after having been out of work for many years. She continued her education. Prior to the divorce, Sarah attended four to five Al-Anon meetings a week. At this time, she attended up to two a week, reinforcing the lessons she learned and supporting the growth she was seeing in herself. She began working with a sponsor, with whom she was still meeting at the time of the interviews.

Over time, the growth she achieved through Al-Anon and with her therapist helped Sarah to finally realize many things of which she had not been aware. For instance, prior to the divorce, Bob told her she was too busy, the activities she was attending were causing their problems, and she needed to stop doing those things. In therapy, she realized she was participating in “so many” activities while she was married because she “needed community, a sense of connection and purpose,”

I did. I stopped a lot, a lot of those things. And in my journal, I realized that’s where I got my sense of purpose, my identity. When he asked me to stop those things to make the family happier, to make him happy, I lost that. And that’s when things got really bad for me emotionally.

Revealing this information caused her to *weep* (sadness) for the first and only time during either interview, as she realized how much she gave up during the marriage:

I think it took me a really long time to realize that people who, in my head, were supposed to serve in a specific capacity, my mom, my husband, my best friend, my therapist, no one is there to take care of me or fix those things for me, but me. And it [the divorce] was like a slap in the face. Not a bad one, though, a good slap in the face when I finally accepted this.

As the interview process ended, Sarah came to another realization. During the first interview, she gave a brief personal history about her and her husband's parents. She had some uncertainty about it being necessary to share but "*sensed*" there might be "something there" that played into the outcome of her marriage.

She reported that her mother and father were about 10 years apart in age, were married at 21 and 30, respectively, and her family of origin had a history of alcoholism. Her mom was "basically" raised by a single mother in the 1950s and 1960s. Her husband's parents were eighteen when they married and did not have children until they were 30. In an amazing turn at the end of her second interview, Sarah became certain her personal history was, in fact, directly related to the downfall of her marriage. She offered,

There was no affection in my home growing up. I did have two parents. We did live in a nice house. We lived in a normal town. But there was no affection, no talking about feelings. That plays into all of this because I was not able to provide that. As soon as he [i.e., her husband] was not performing in the ways that I thought a husband should, I called him out on it, and he withdrew.

It took Sarah 4 years to make complete sense, critically reflect, and to transform her understanding of what happened in her marriage, to finally realize her husband “needed unconditional affection and I was not able to provide enough of what he needed.”

Findings

Sarah’s narrative revealed that even though she may not have yet successfully completed the first phase, the advancement through subsequent phases of the transformative learning process, served to eventually support a transformative learning experience, 14 years after her experience of a disorienting dilemma. Sarah, familiar with the stages of Mezirow’s (1978) transformative learning process, stated facetiously during the first interview, that she was certain she already completed these stages with regard to her disorienting dilemma. She had by working diligently on her own through issues she was having in her marriage, prior to the divorce. This work involved phases of the transformative learning process starting with phase four. This work served to bring her “bits and pieces” of information and several smaller realizations that eventually helped clear the path for a final transformation revealed in her second interview. Sarah’s process involved,

Preconscious Microprocesses of Embodied Cognition

- **Fear** - during the beginning of their marriage, Sarah discovered something was not right. She was afraid of what others might think about her marriage.
- **Anger** – Sarah become irritated with her husband for not behaving as she thought he should (anger). She was confused and frustrated (sub-level of anger) about his behavior.
- **Flocking** – Sarah persevered steadfastly to find information through research to help her understand, gain a sense of safety in understanding.

- **Denial** – Sarah “assum[ed] it was normal, that men wanted to support their families and do tasks around the home.” “I could not see a solution or a path forward.”
- **Lockdown of Embodied Cognition** – When she asked her husband for more help around the house and to be a partner, he agreed but did not change his behavior. This created confusion (an inability to make sense).
- **Anger** – Continued confusion caused “*frustration*” (sublevel of anger) holding her position in the felt-sense experience in the second *preconscious* microprocess of embodied cognition for years.
- **Lockdown of Embodied Cognition** – Five years after having two children, Bob gained weight, became involved in marathon running, and was transferred to a different job, taking him away from the family often. Eventually, left to do “all the things” at home, Sarah stated she “felt like a robot, *without emotion*.”
- **Lockdown of Embodied Cognition** – Sarah, motivated by *will*, took *action* by involving herself in activities in the community to create other connections. When she eventually shared with Bob her displeasure (anger/frustration?) about his continued absence, he managed to “turn it around” and place the blame on her for spending so much time engaging in activities in the community. This cemented the lockdown of embodied. The location of the felt sense at this time was fully in the preconscious microprocesses of *fear*, *anger*, and *resentment* [sublevel of anger].
- **Lockdown of Embodied Cognition** – Sarah shared that his “turn[ing] it around on her,” and blaming her “brought her to hopelessness and despair.” Although these words are often related to sadness, both words are intellectual pursuits (thoughts) about having no prospects or solutions to resolve a situation. There may have been an

experience of sadness underlying these thoughts; however, she did not acknowledge (speak to) sadness, only that she was “brought” to these thoughts. Sarah’s inability to accept the reality of the situation (*denial*) and inability to resolve the situation (creating the preconscious sensory experience of *resentment*, sub-level of anger), inability to acknowledge (whether conscious or unconscious) an experience of emotion, indicates she was still in a lockdown of embodied cognition in the first phase of the transformative learning process.

- **Lockdown of Embodied Cognition – Self-Examination and Sensemaking** – Sarah still unable to reconcile the discrepancy between the reality of her situation and what she thought, she *wills* herself to do research to find answers. This brings her to a journaling group, a blog, and a therapist (Phase 4, recognition of shared experiences, Phase 5, exploring options for new behavior, and Phase 6, planning a course of *action*). Sarah eventually joins an Al-Anon group and learns that she cannot do for Bob what he can do for himself.
- **Lockdown of Embodied Cognition** – Although she may have been addressing the advanced phases of the transformative learning process, she continued to be in *denial* and *anger*, Stages 1 and 2 of the grief process, meaning that although she was learning, she had not yet acknowledged or processed any emotion (sadness) about her loss (in Phase 1 of the transformative learning process), nor had she come to an understand the reality of her situation (Phases 2 and 3).
- **Lockdown of Embodied Cognition – Will and Action** – Sarah continued to stay busy by taking *action*, distracting herself intellectually from an emotional experience. She diligently continued *doing* her personal work for the next few years and although,

Sarah and Bob eventually attended couples therapy, three different times, it all was to no avail. They both ended up on medication (controlling any emotional experience). She stated she continued to take her medication because it helped reduce the stress of what she was going through.

- **Lockdown of Embodied Cognition** – After having finally found a personal therapist, whom she described as “life changing,” her husband told her he had filed for divorce, and she was informed by an anonymous person that her husband was having an affair.
- **Lockdown of Embodied Cognition** – This information seemed to reignite her *anger* more intensely and as she stated she was “on a mission” she immediately developed a “survival plan.” This plan (*action*) spelled out what she needed to do—get a lawyer, get a job, go back to school, etc.—and distracted her from how she felt emotionally. This focus on her mission would keep the felt-sense experience in the second microprocess of embodied cognition and the second stage of the grief process (*anger*).
- **Lockdown of Embodied Cognition** Sarah was “shocked [lockdown] and crushed” about the divorce, not because “I loved him and was sad [continued denial about the loss of the marriage], but because it wasn’t my idea or my choice; he took control away from me.” Sarah’s statement shows *anger* toward Bob for having taken her power away in the situation. Like Gigi, enacting a fight response and an *action* plan “to get her life back,” continued to distract her from processing this *anger*.
- **Meaning Making** – Sarah continued her personal work and learned she needed to stop seeking validation from others, make choices for herself, and trust and validate herself. She began to make some travel choices. At times her husband knowing what

time to be ready her husband would just not show up on time. She would become irritated and frustrated. When she began to understand that she could not change him, she stopped trying to control him and when he did not show up on time, she chose to go ahead and leave. She even eventually chose to uninvite him from the holiday meals she had with her family because she knew he would make the event miserable for herself and others. This behavior is indicative of Phase 7, the acquisition of knowledge.

- **Lockdown of Embodied Cognition** – In the second interview, Sarah stated that while she accepted the divorce, it did not mean she forgave her husband (she still felt anger toward him). She wondered if forgiveness and acceptance were the same. As with Marilyn, Sarah experience of *forgiveness* was a “letting go of the past” (not thinking about it anymore), however, she still had not acknowledge the associated emotion to this loss. *Acceptance* is a final processing of all sensory, emotional and intellectual experiences for healing, allowing finally allowing for an understanding and eventual awareness of the reality of the situation (Kübler-Ross & Kessler, 2005). This allows for further meaning making and an eventual ability to see one’s responsibility in the situation.

Conscious Microprocesses of Embodied Cognition

- **Emotional Function of Cognition** – To prepare for the narratives, Sarah reviewed the journals she had written during the time of her divorce. This reading took her back to the dark place she was in at the time, feeling trapped, helpless, and frustrated and she stated she became “very sad” about what she had experienced throughout this situation. She chose to “sit in” her sadness long enough to engage the intellectual

function of cognition, bring her to and through some self- and critical reflection, and develop a new frame of reference regarding her part in the downfall of her marriage.

- **Transformative Learning** – It turns out, the brief personal history about her and her husband’s parents and the “*sense*” there might be “something there” brought her to realize, “somehow it just came to me,” that she was unable to provide enough affection to support the needs of her husband. She realized because they never showed signs of affection, she had not learned how to do so either. Sarah began to discuss her complete acceptance and ability to forgive finally came as she realized this. She was finally able to move the experience from subject to object.

When asked if she believed she had finished grieving her experience, Sarah stated, “There is always sadness behind the anger, and I still definitely go to anger.” She admitted to continued bitterness [supra-level of anger] and struggling to connect to the emotion [sadness] as she continued to reflect on her experience. She acknowledged, although she had experienced plenty of tears and emotion throughout this experience, “a lot of them were expressed in a manipulative way.” She stated,

I’ve done a lot though and I have come to a lot of acceptance and yeah, however, there is still some, some pieces that I have not [accepted], and I mean, some of them, I don’t know. [Pausing]. I don’t know if I can ever be a hundred percent, like, I don’t know if acceptance equals forgiveness. Is there still *anger* happening? Yes, I think part of that is with my, you know, future, because it comes out as *fear* there, but the anger is about having to be scared at all.”

Sarah became aware there are still “pieces” of the loss she needs to accept and changes she has to make going forward. She acknowledged anger about having to be fearful of her future.

Although she experienced some transformative learning, it seems she might have a bit more to learn.

Sarah's story demonstrates transformative learning phases can be visited in a back-and-forth manner for a disorienting dilemma or parts of the dilemma, and Sarah's experience with grief exemplifies how this process is not always a linear process (Kübler-Ross, 1970). Findings show more importantly, the stages of the grief process can offer a clue as to where one is in a transformative learning process, what work still needs to be done to complete the learning process, and whether a transformation has been completed.

Trapped in fear and anger about having to "start her life over," she was not able to unlock embodied cognition regarding this layer of her disorienting dilemma until now. In this case, with a new understanding about being emotionally unavailable in her marriage, she became aware that "that is now what I have to go back to, *I must need to mourn* this loss" of not having been taught how to be more affectionate and how it contributed to this loss.

In summary, Sarah spent much of her 20-year marriage focused on the changes her husband needed to make, only to find out she needed to make changes as well. Findings showed advancement to phases beyond critical reflection (phase three) of the transformative learning experience can occur even if the initial microprocesses of embodied cognition have not been fully processed.

Sarah was blindsided (due to a "blind spot") by her husband's filing for divorce and by her realization regarding her responsibility in the downfall of her marriage. The label "transitions blind side" (Bridges & Bridges, 2019, p. xii) seems to best fit Sarah's lived experience of disorientation.

Terrorized

They were raw feelings, just raw, no intellectualization, none of that. I felt pole-vaulted into protecting them. I did not have words for feelings then, just words that described the incident. My body just reacted. I couldn't control it. It felt horrible, um terror, terrorized. I was always afraid that they would do something to make him mad.

—Isabel

Isabel, a 55-year-old female originally from the northern United States, moved with her immediate family to the South as a child and, later as a young adult, moved again to another southern state. She identified as upper middle-class and held an education-specialist degree. After working for 16 years in social work for the state, she became a special education teacher, K–5 through 12. Although she was certified to, and showing a sense of humor, she stated she did not choose to teach middle school children because children of this age are "scary."

Isabel came to the interview to share the lived experience of the disorienting dilemmas (trauma) she and her four brothers endured growing up and how this interrupted their emotional and intellectual development. Her brothers were Chacho, adopted, 8 years older; Tom, biological, 6 years older; Bob biological, 3 years older; and John, biological, 2 years younger. Both parents had passed, her father 10 years earlier and her mother 3 years earlier. I chose Isabel's interview next to show how the disorientation of trauma can interfere with transformative learning for years—55 years in her case, yet can still occur once preconscious sensory and conscious emotional energy is processed.

Isabel has attended therapy sessions since she was 19 years old. Because she had "not been harmed as much as her brothers had," and because of the rationalizations she engaged in about her mother and father, it took her a while to "recognize that it was traumatic for me to have watched all those incidents happen." She admitted to having been able to avoid the felt-sense

experiences of fear, anger, and flocking due to a strong determination of will—until this interview, that is, when she chose to begin to feel the sensory and emotional experiences, and acknowledge and grieve her own (rather than focus on her brother's) experience.

Isabel's Narrative

After losing his father to a heart attack, at age 9, Isabel's father was "shifted around to his grandmother and to uncles who were not always good to him." She knew he was traumatized as a child, and "I catch myself using that information to suppress my emotions, wanting to excuse his behavior as our father, because it was horrible for him growing up." Isabel's mother came from an extended family of alcoholics, and her father would beat her brother's frequently,

broken noses and everything. So, my mom knew when to be quiet, too, I think, for self-preservation reasons. Which is not an excuse for failure to protect, you know, her children, but most likely how she survived in her family. Um, and sexual abuse for years by her older brothers. It was a large family of six. So, my mom as well as my dad brought their own package of dysfunction into the, into the relationship. And neither of them had effective healthy coping skills and/or parenting skills. [Silence]. Um, my father's abuse continued until my brothers, um, the two I had left, were in their, um, teen years.

Isabel stated that her parents had "sketchy relationships with sketchy people" whom her dad brought into their lives. He was in a band, and there were people coming and going all the time from their home, in addition to foster kids. Isabel, before describing her dad, prefaced her comments by saying she was "not [trying] to diagnose my father, but he was definitely narcissistic with a lot of his thought processes."

She remembered, from about the age of six, her parents always had foster children when she was young. The first child was a female who had "horrific things going on in her life."

Isabel's dad found her “living in a cemetery where she could see her brothers and sisters come and go to school.” She recently learned that “I was present in a situation in which my younger brother John was asked to do some really physically crazy stuff with this girl, and that the babysitter I adored, from across the hall, had sexually abused him.” She remembers living with this girl—and eventually eight or nine others—and how disruptive this was to the household, but, as she said, “We acclimated.”

Isabel believed that the foster care system began giving her family only the most significantly difficult children. One child, who had been living in a friend’s car, had a brother who tried to light her on fire and then threw her down a set of stairs. Another’s father had just committed suicide, and because her mother could not manage the situation, she ended up in foster care. Although many of these girls were significantly emotionally and physically abused and “lots of them had pimps,” Isabel thought this latter girl was the most emotionally impaired since she became schizophrenic.

Isabel was the only girl in the family before all the foster care children came, and her father had customized her room with a bed built into the floor that was “just amazing.” When the foster girls began arriving, “there were about five at one time, and I was the lucky one who had to give up my room”:

I learned things I should have never known. I saw things I should have never seen. My dad's focus was not on us because it was all about him, uh, he wanted attention for having taken in all these kids. How wonderful and loving he must be. A lot of energy was put on foster kids, often to the detriment of us, the biological children. And really, we had limited interactions with him. And when we did, it was just ugly and abusive. One time, we had two foster girls at the dinner table. We had beans on the table. My brother Bob

would not eat beans. And my dad just dumped the whole bowl over his head in front of the foster children. I mean, we were not the center of his focus ever really. Um, he did not go to therapy or anything like that either. Um... [Silence].

In time, Isabel's parents took in and adopted Chacho, a 14-year-old male who struggled with reactive attachment disorder (RAD). Isabel stated he did not bond or adjust well to the family and pretty much disappeared over time once he left home. "He usually treated me pretty raunchy," and although he currently lived in the county adjacent to hers, she had not had contact with him for over 10 years.

Isabel reported that her oldest biological brother, Tom, may have incurred some brain damage at birth due to the use of forceps during delivery. As a child, he was placed in special education classes, which, at the time, "were to ensure children had access to school, but they were not taught." She stated her brother was capable of being placed in a higher-level class and was eventually moved to a mainstream class at the request of her parents.

She remembered Tom getting caught smoking and drinking. Her father made him drink a whole bottle of liquor and kept him smoking until her brother got sick and threw up everywhere. "It was horrible, disgusting, and actually makes my stomach sick as I think about it." Daily, Isabel's dad put the second oldest son, Bob, in charge of making sure Tom did what he was supposed to do correctly.

When her parents left the house, they would leave Bob in charge of Tom, Isabel, and her younger brother John. She described the way they treated each other when their parents were not home as "sibling cannibalism." Bob and Tom would fight, and she said it would just get horrible. "I can see the images in my head of when they fought, um, punching each other. They actually gave each other black eyes":

When I refused to go to bed, Bob dragged me by the feet all across the house into my bedroom. And I'm yelling at him and screaming at him and, you know, a bunch of kids who had no idea how to manage the environment, except I'm pretty sure that I, uh, disassociated during some of those horrific episodes. Sibling cannibalism, I call it now.

Isabel was 11 years old when the family first moved to the South, leaving extended family behind. The state gave them permission to bring one of the female foster children with them. Isabel's brother Tom would end up having sex with this girl, and she became pregnant. These two moved back north, and after the child was born, they gave it up for adoption. The last time Isabel heard anything about Tom was when a police officer from another state called her youngest brother John, a police officer himself, to report that Tom had been arrested. Evidently, Tom was psychotic, and Isabel, who was about forty at the time and on the call as well, asked the calling officer to please have him hospitalized. The officer agreed.

When she thought about this brother now, she was aware he also had many external, physical manifestations of the trauma he endured. He was unable to manage his behavior, and what may have looked like attention deficit hyperactivity disorder (ADHD) was "all trauma related, due to the significance of his, uh, abuse." She stated her father "was pretty ruthless"; he did not tolerate "things not being done right when he showed, taught, and asked my brothers to repeat the behavior." She remembered one incident in particular:

He picked up both my brothers by the back of the neck and just slammed their heads together and let them fall to the floor. I can see my mom not intervening. Of course, I was screaming and begging him to let them go. My little brother, I don't really know where he was. He was usually beside me, with me, or behind me. We were glued together when we were little.

Isabel remembered intervening often when her father was doling out discipline, and she would run in and scream and try to pull him away from her brothers by pulling at his legs. She never got in trouble for this, and her younger brother, never far from her, seemed to stay out of trouble as well. Isabel acknowledged that her mother often “failed to protect the children,” staying in the kitchen or elsewhere, turning away so she did not have to see what was happening to the kids. Later, in therapy sessions, Isabel worked on all this, stating, “Um, it’s all been pretty difficult because I do not want my brothers ever to feel one more minute of sorrow or hurt or pain. And I kind of carried that with me.”

When Isabel was about 10 years old, she realized she did not like the way her father was talking to her mom and began speaking for her mother, and, consequently, “being relatively safe kind of went out the door.” She did not endure the same consequences her brothers had, but she “endured enough.” When they moved the second time to another state in the South, upon arrival at the house he bought, she stated,

You know, I, I took one look at the house inside and outside, heard what was not done by the guy next door who built the house. Um, and I was so horrible, but I’m okay. I said to my dad, “You bought my mother, you bought my mother another shack.” And that was the only time that I remember not having consequences. He was mad as hell, though. But, um, that was the consequence. I guess he didn’t hit me or anything. He just yelled at me a whole bunch. Um, again, just trying to stick up for my mom, talk for my mom, wanted better for my mom. I don’t, I don’t know.

Isabel remembered, after the second move, only having one pair of flip flops and a few shirts and shorts. By her first year of high school, she had run out of clothes. Her father gave her

shirts he no longer wanted. “I wore his freaking old worn-out band shirts to school for a year probably.”

Isabel worked full-time in the family business, a takeout restaurant, with just the family running the place. She stated sarcastically that the customers actually thought she was adored by her parents:

In my early education years, I was able to join Girl Scouts—however, got forgotten about, um, several times. I walked home in the dark, in the snow, whatever. I don't truly believe that I got forgotten about, versus my dad just saying, “She can walk home.”

Definitely not a sense of care, support, and, and love going on there.

Years before, Isabel’s parents had stopped caring about their children’s grades in school and never really attended any events for any of them. She stated that her dad refused to go and would not allow her mother to go to an event Isabel was invited to because, for instance, she had won an award for something. Her siblings always said he would never go to these events because they were not about him.

Isabel was not allowed to participate in sports herself and spent long hours at the family restaurant, often stepping in for a brother who had wrestling, football, or another extracurricular activity. Occasionally, when she would stay late, men would try to pick her up “using stupid ... lines.” She would walk home, by herself, with two liquor stores and two strip clubs right next to the restaurant. They also had a trailer for serving food when they would cater events away from the restaurant. In those cases, the children were all expected to wake at 4 a.m. and get things ready for the event.

During the last 2 years of her marriage, Isabel’s mother did not want to raise foster kids, but that did not seem to matter to her father. Her parents continued to take them in, specifically

one who acted very promiscuous around her father, and, as Isabel said, “it was gross.” “My dad had stragglers, stragglers, stragglers, strangers in the home who were not adults or related at all. Um, and my dad, again, was more concerned about them than his biological children who had nothing.” Her mother ended up “stepping out” on her dad and eventually left him and the home:

She left us with all those foster sisters, and I pretty much thought I was going to die by losing the only stable person I had, even though she wasn't protective. Um, I was a total wreck, up all night, crying, begging God for her to come home, for a lot of reasons, but protection was definitely one of those things. Even though her protection was minimal, I did not want to be with my dad at all. She came home after about a month, and he left to retaliate. Um, and I was so happy, we all were. We finally had a break from his volatile and unpredictable behavior. And we were all happy to be with mom. Unfortunately, it didn't stay that way for long. He began to threaten to take the kids from her or not pay child support, and she eventually asked us to take him back, but his being gone, it was probably some of my favorite moments in childhood. [Laughing]. That's so horrible and so f'n true. So freaking true. Excuse me.

Eventually, her mother realized what she had been doing, changed her behavior, and divorced her father after 30 years of marriage. During the divorce proceedings, Isabel was questioned by the judge about her father's discipline, and she told him,

He used anything he could get his hands on to hit them, um, and do other physical damage is what he did. And he was definitely much harder, um, at times on my older brother Tom, who had some intellectual impairment. Things like that were a common occurrence.

Isabel mentioned that she also did not recognize, until she was older, how “yucky and horrible” her father was to her mother:

He was prone to get her by herself, maneuver her into a bathroom and shut the door behind them. He couldn't stand it when she didn't think like he thought. So, he always pushed his beliefs or whatever on her. They would be labeled onto her. And my mom would, um, concede. Usually.

When she was about sixteen, Isabel’s brother Bob, who was 18 at the time, finally had a “significant physical altercation with my dad.” Her father threw the first punch, but, as she stated, her brother did not back down or hesitate at all. Her brother was a wrestler, with a “huge freaking neck that looked abnormal [laughing], and my brother came out almost unscathed from that and my father did not. And then my brother left, and it was just me and my younger brother at home.”

Bob became the “quasi-father” after their parents divorced. Isabel stated that she and her brothers had “pretty black and white” thinking they all had a cognitive developmental delay. Although he was very rigid and rational, he made sure she was always safe from harm and “fixed things for me.” She stated,

When I needed absolutes, he was my connection for absolutes, whether I needed the absolutes, so I could manage my emotional state, which was mostly how it came about, I think, or also for, um, just, you know, information about life. I also did not know until later that he would cut down anybody he thought was not appropriate for me to date and they would not even approach me.

The two brothers, Bob and Tom, and Isabel had taken an unspoken “kind of stance”—until about a year or so before her mother died (three years earlier)—that their mother had also

been a victim. “It makes it really hard to understand that once you're an adult and you have children, that you have to protect your children.”

Isabel remained the emotional protector of her two remaining brothers when they left home and “went about their business” in life, one to the military, the other to the seminary. She continued to speak for her mother until after her parents divorced in 1991. Isabel married her first husband this same year and eventually had two children. Her mother lived with her, a multigenerational family, without any other extended family around. From that time on, “every house I’ve had, had a bedroom, of course, for my mom.” Her mother had several illnesses—heart disease, stroke, and cancer—and needed a “watchful eye.” Isabel’s mother became a significant parental influence once she divorced her husband. She was a dedicated grandmother, and many loved her. She passed in hospice care, with her family present.

As Isabel looked back, she was shocked to think that when she was younger, the family was closer to her father’s family than to her mother’s. He had his mother and two sisters, one of whom died, and the other of whom

waited, waited too, waited too long to apologize about 5 years ago. I do get sad about that, and then I get kind of angry. We had a lot of adults in and out of our lives, um, who could have clearly seen what was going on. [Silence]. I don't know. Things just sucked.

It was always hard for Isabel to determine, in their neighborhood, whether other people were treating their children better than how she and her brothers were treated. They would spend time together with several kids during the summer who would say,

“When my parents call me, I have to run home.” And of course, my brothers and I are still outside at eight o'clock at night playing baseball, football, whatever we wanted to play. I just followed my brothers around and learned how to ride bikes just as fast as them

and to ride a skateboard, throw a baseball, and a football. Not my parents. They were my only support if something happened. So, I stayed close to them as much as I could.

Isabel stated she and her two brothers saw their father differently. Bob was 3 years older and John 2 years younger, and neither was interested in having a relationship with their father after their parents divorced. They thought Isabel was “crazy” to continue trying keep the family together.

Bob was angry with his parents and did not talk about it for a long time. He dealt with his anger by shifting his attention to the military. Interestingly, her younger brother, although he went to seminary and did some preaching, eventually ended up in a law-enforcement career. Isabel was the only one who had been in therapy for a very long time, and she stated that this and prayer made it possible for her to have a relationship with her dad before he died. Although she forgave him, she maintained many boundaries with him. One boundary was a time limit for ensuring that they stepped out of his presence before “the “honeymoon period (pretending like we all love each other and so on)” was over. If they stayed too long, he

would get ugly later. He had indicators in which I could tell it was coming. And that was a *preconscious* experience I eventually learned, over time, about who he was and how he behaved, so I could be predictive. And I did, um, I was able to predict and stayed out of a lot of issues with him and then just let a whole bunch roll off my back.

She was able to design a relationship that was safe for her family, her husband, her former husband, her two children, and herself:

But somewhere in there, there had to be forgiveness. And I've been saying for years I did not, I did not have the capacity to forgive him. I did have the capacity to learn to reflect,

which is both a burden and, um, a blessing. Reflection. And I don't think we move very far in our life if we're not able to do that.

Technically, nothing changed with her father after he remarried. Isabel stated that she went to college, and when they talked, he would only talk about how proud he was of his stepdaughter who was going to college to get a master's. It was still always about him:

Of course, maturity, more insight into myself and therapy, um, and forgiveness helped me from staying resentful. I really worked hard in therapy to change my perspective on things and to raise my children much differently. Um, and that was a *conscious* effort done after critical reflection of the relationship I had with both my mom and dad.

Findings

Isabel's narrative revealed how the original preconscious felt sense experiences of fear, anger, flocking, concerning a disorienting dilemma or trauma can be willfully avoided while residing in a comfort zone for fifty plus years, in a lockdown of embodied cognition. In this section, I use additional excerpts of Isabel's story to clearly demonstrate how one can remain in a lockdown of embodied cognition for so many years.

Preconscious Microprocesses of Embodied Cognition

- **Denial** – Isabel admitted, like Charles, to *willfully* avoiding the *preconscious* sensory experiences of fear, anger, and flocking. She stated,

my brain and body together want [notice the present tense] these feelings to stop, it's just been the same, you know, all my life, trying to push it down, away from my cognition and thoughts, that I never have to see it in my head again. So, we got used to what we were used to, eating our feelings, I guess, or shoving our feelings, and we had nobody to talk to but each other.

- **Lockdown of Embodied Cognition** – Isabel so diligently mastered the art of avoiding sensory and emotional experiences over the years, that her body performs this skill, instinctively, like an animal might respond to a threat, automatically and without conscious awareness. Although, during the first narrative, Isabel’s discussion of her oscillation throughout the first three microprocesses (fear, anger, and flocking) was made easier because the instruction for this first narrative was to avoid discussion of these experiences, her skill in avoiding them is further evidenced by the lack of disruptions of speech with paralinguistic cues.

For example, Isabel refers to the process of being activated often by the felt sense (the location of meaning) and motivated to do something, as grooming. Because there was so much abuse, her body, over time, was groomed (information stored in personal historicity) to recognize the signs (predictors) physiologically, that something bad was going to happen with her father. She stated her body would shake, her heart rate would increase, and she would get sick to her stomach.

They were raw feelings [fear - informing of a threat], just raw, no intellectualization [lockdown of embodied cognition], none of that. I felt pole-vaulted [by anger] into protecting them. I did not have words for feelings then [alexithymia], just words that described the incident. My body just reacted. I couldn't control it. It felt horrible, um terror, terrorized [fear]. I was always afraid [fear] that they would do something to make him mad.

This recollection clearly identifies the felt sense experience located in the first and second preconscious microprocesses of fear and anger. “Raw feelings,” “no intellectualization,” “pole-vaulted,” “no words,” “reaction,” “no control,” “terrorized”—these are all indicators of the felt

sense (phantasia) informing her of a threat and motivating her to action. This keen ability to avoid her preconscious sensory experiences of embodied cognition delayed movement to the conscious microprocess of emotion to effectively and intellectually process the disorientation and lay it to rest.

- **Fear and Anger** – During the second interview, Isabel made a decision and chose to sit in the *preconscious* felt-sense experiences of fear and anger, as she spoke. From the age of five, Isabel remembered always being "scared to death" (*fear*) for her brothers. She was surprised she was even aware of death at such a young age. Over time, after seeing that they had survived the abuse, she might not have *worried* (*fear*) about death; however, she still experienced *fear* about "losing her brothers" to the point that it made her

“very sick to my stomach [*fear*] and want to try to intervene [*anger* as motivator].” We were in *fear* often, and those were, you know, commonplace emotions [example of the term emotion being used to indicate a sensory experience] for all of us, I guess I would say. So, my terror [supra-level of *fear*], the terror of thinking about them dying at his [her father's] hands, I'm sure it was a motivator [*anger*].

- **Fear** – Isabel stated she cringed often because her older brother Bob could not just walk to his father when he was called; he had to do "a back flip or walk on his hands" to get there. She stated he could not contain himself, and this was before the diagnosis of ADHD became popular; previously identified as minimal brain damage or MBD (Knobloch and Pasamanick, 1959). Instead, the doctor told his parents that he was choosing to behave the way he was. At the age of five, Isabel would "pray he would

just calm down and walk to Dad." He could not regulate or control his body movements, and regardless of what was causing it, he would get in "so much trouble" (she placed her hand on her face, with her eyes closed tight, and turned her head to the side, as if not wanting to see what she saw in her mind's eye, and she began to cry, as if she were there):

I'm shaking and praying that they would be [crying], that God would intervene and stop it before it really hurt. And the unpredictability of this, the behavior from my dad was even worse. Just having to be hypervigilant all the time [crying]. Once a feeling would surface [fear or anger] and my interpretation [prediction] of the situation at hand ... I didn't of course have the skills. Even as I grew, we weren't taught the skills to manage and self-regulate our emotions. I would sometimes [silence], when my body and my brain were trying to process [lockdown of embodied cognition] the environment and what was going on, I would pee on myself.

As Isabel recounted this experience, a disruption in her thinking, silence, indicate the felt sense experience began to surge.

- **Fear** – As Isabel got a little older, her father began interacting with her in different ways, and all he had to do was clear his throat. It became another cue warning me that something was going to happen. [Silence].

You know, when you're out in the cold and you can't control your body and it does what it's supposed to do, shake, try to regulate. It's just, just like that. I would just start to shake, clench my teeth, pray, and pee myself. And that went on for years. [Silence].

- **Fear** – Her father had a "cattail." She asked me if I knew what she meant, and I asked if the term referred to the tall plants outdoors with the fluffy tops (I thought he might have used the stalks as a switch). Evidently, I did not know what she was talking about:

No, it is a leather strap, the kind where pieces are cut out. So, it looked like a whip only they were sicker. There weren't as many as on the end of his whip. And that was usually just the object of choice. So, we just lined up and he beat our asses all the time. Even me, I wasn't excluded because I was a girl. I carried this with me a lot, um, that I could identify, not just with the hypervigilance and the terrorizing and that kind of stuff, but I carried a deep sadness for all of us. But specifically for Bob and Tom.

Conscious Microprocesses of Embodied Cognition

- **Emotion Sadness?** - I noticed Isabel's reflection on sadness moved quickly from a focus on "all of us" (as the felt sense began to inform her and bring meaning to this sensory experience) to sadness for her brothers. Isabel was followed immediately by an adjustment to her viewpoint: "Maybe sad is not the word, but that's the word my, my brain used. It's just, their [specifically her brother Bob's] existence was in trouble a lot. I was so sad, so deeply sad [for them]" Isabel clarified later that the word she was seeking was "despair." Despair is an act of thinking about there being no prospect of hope or solution to a situation. This thought can bring a deep sense of fear, anger, or sadness. As Isabel originally described, there was likely a deep feeling of sadness underlying this thought, and it became clear as we talked that she was beginning to experience it. She continued,

It [despair] touched every part of who I am, spiritually, emotionally, intellectually, it just touched everything that I am, and most of all of what we are made up of. [Silence]. I don't even know how we, we got, went to school. I, I don't know." (Note the disrupted and tangential segue to a different topic).

- **Lock down of Embodied Cognition** – In reflections on her past experience, notice the focus is not on what she needed, but on what she would need to do to protect and keep her brothers and mother safe. While recounting her story, there were times when Isabel seemed to experience quite a bit of pain. In the last example she seemed to get too close to remembering how it was for her and quickly, using Isabel's word, she "pole-vaulted" from the discussion of despair to not knowing how they got to school. Until the interviews, she was not able to focus fully on what the experience meant for her and, more explicitly, on how it "felt." Now, however, she seemed to be experiencing some sensation. I checked with her, and she stated, somewhat humorously, that she was fine and well versed in shutting stuff down. She pole-vaulted immediately to a happy memory about Bob.
- **Lock down of Embodied Cognition** – When Bob left home, Isabel states she was so happy, not only for him, but also for herself. She could now focus on self-preservation. She did not have to worry about him anymore, although she knew he had been seriously affected by their father's abuse, and this, unfortunately, led her to a memory of how seriously he was affected:

I spent the night once to go to a concert with him one day. He had moved in with his girlfriend. We got up in the morning and I watched him down, I can't even tell you how much, he just turned the bottle of Jack Daniel's up.

- **Lock down of Embodied Cognition** – As the previous memory turned out not to be an especially happy memory, Isabel attempted to “pole-vault” to another happy memory of her first-grade teacher, who was the only person she ever felt valued her. Every day, this teacher would tell her something about what she liked about Isabel, and “never once in 180 days did she say the same thing twice.” Isabel stated that her saving graces were having had her self-esteem lifted by this teacher and, later, the development of “the art of reflection.”
- **Sensemaking** – Isabel, having assumed the caretaker role with her brothers, was later prepared to take on this role with her mother. At 15, she was working on her mom, asking her,

Who do you want to be? I see you being what he wants you to be. And I named the incidents which I observed. Is that really going to be the rest of your life? If that is what you want, if that is your choice, it's OK.

Conscious Microprocesses of Embodied Cognition

- **Unlocking Embodied Cognition – Emotion/Sadness** - Isabel described, more articulately than any others, moments in her life when she felt sense pre-consciously informed her and guided her in protecting herself and her brothers. She demonstrated intimately how *preconsciously* and *naturally* these sensory experiences of *fear* and *anger* motivated her to *action*. Although she mentioned only once of being *sad* for her brothers and having despair (loss of hope) for them throughout her childhood, she admitted she has been able to feel *sadness* lately and grieve her own personal experience in therapy.

Isabel has participated in therapy for many years prior to the interviews and was fully aware of and prepared for the possibility of having the preconscious sensory experiences re-kindled. She held out through both interviews and stated she was grateful she agreed to these interviews as they somehow started a cascade of reflection, emotions and new frames of reference.

According to Ahmed (2006b), an individual who has been traumatized is not able to orient to any direction, as they have been "'stopped' [by the felt sense] which produces [] disorienting effects [fear, anger, flocking], and effects what objects are reachable" (Ahmed, 2004, p. 23). Specifically, the felt sense is "felt on the surface of the skin" (p. 4), as a sensation, not quite yet an emotion, and is prescribed by nature to create an alertness and motivation for survival (van der Kolk, 2015).

This process can instigate or prevent the subsequent ability to read an object or discern what is happening (Ahmed, 2004) causing a disorienting dilemma. The personal unconscious (historical sensory information stored) is brought to *consciousness* in incidental learning "as an object impress[ed] upon us" (p. 8) or by leaving a physiological "trace" (van der Kolk, 2015, p. 1) creating an image, or perception. This impression can support or impede transformative learning given the presumed sense of safety one is able to identify or discern and the opportunity for a connection.

In Isabel's case, her father represented the feared object onto which sensory experiences were "stuck" (Ahmed, 2004, p. 8). Avoidance of these sensory experiences, at the time, interrupted her ability to apprehend the feared object. These feelings remained "stuck" to the object, her father, even after he passed, maintaining the lockdown of embodied cognition from her childhood years into her adult years.

Talking with her after the interviews, Isabel stated she realized how her focus was cemented on taking care of her brothers and mother and that even now, with only her brothers, she is still doing this at the detriment of her own health. She has decided to put up boundaries with her brothers and stop her caretaking. She also came to realize talking to her brothers recently, her ability to reflect had somehow improved, while their cognitive abilities continue to be developmentally delayed in what she identified as the third stage of cognitive development. According to Piaget (2000), the third stage of intellectual development, from age 7 to 11, is concrete operational thinking. It is a “black and white way of thinking,” she stated, “and that is what they are stuck in with no ability to reflect.”

Isabel recalled having magical thinking early on (Stage 2, preoperational thinking), and if worried she might be in trouble when she got home from school, she wondered if she spanked herself, if that would satisfy him. In this early stage, thinking is still tied to concrete, tangible experiences and objects, and her advice was,

Um, well what made sense was still, do not put yourself in the situation that you are going to make him mad or he’s going to choose to be mad. Don’t do that [silence].

Isabel disclosed at one point during the interviews, “we do not move very far in life if we are not able to reflect” however, she has been unable, until recently, to move to the second phase of the transformative learning process (self-examination) and reflect on the trauma she experienced in her childhood.

Schon’s (2004) description of the concepts of reflection-in-action and reflection-on-action supports this finding. Reflection-in action involves constructing new frames of reference at the time of the event, while reflection-on-action represents what Isabel did after the interview.

As a child, she was too young to reflect-in-action; as she stated, she was continuously hypervigilant, activated often, and easily propelled to action without thinking.

Through the social work, teaching, and personal therapy she has been involved in, Isabel learned about and understands processing emotion and about the need to release emotional energy. She stated by the time her mother passed, she was able to successfully grieve her loss, however, regarding her childhood or her father, she has not “gone there” yet. As an adult, she, like Marilyn, chose initially to forgive her father (an intellectual pursuit) rather than process the emotion she had stored for so many years. Isabel (as caretaker) did this as an attempt to hold the family together.

In summary, findings showed Isabel has been trapped (evidently along with her brothers) in a lock down of embodied cognition for fifty plus years, regarding the abuse she experienced at her father’s hand until she attended these interviews. Moreover, Isabel’s characterization of her preconscious sensory responses to her trauma most closely validate the natural limbic system responses to threats, much like animals do.

Additionally, the findings show how being trapped in a lockdown can maintain a cognitive developmental delay, while a choice to sit in and experience the sensory and emotional experiences of a disorienting dilemma, can unlock embodied cognition and movement to a higher developmental level of cognition and reflection and subsequent phases of transformative learning. “Trapped interminably” (King, 2003, p. 16) seems to be an obvious and appropriate label for Isabel’s lifetime experience of trauma.

Ripped From My Womb

And, and my mind, my body kind of shut down, I just sat there like a lump, but then my mind raced and I, I saw memories from ... I mean from the minute ... Actually, you know

what I felt before that happened. I felt what it felt like to have him in my womb. And it felt like he had been ripped from it.

—Mary

I chose to present Mary's interview last because she reported experiencing some sadness (*conscious* emotional function of cognition) over the 8 months preceding the interviews, while the others who eventually felt sadness, experienced it toward the end or after the interviews. She also reported however, as a result of the interviews, she was eventually able to experience more sadness and healing, fully unlock embodied cognition, and recognize transformative learning. She admits, however, her experience was also intentionally interrupted by a number of attempts to avoid the emotional microprocess experience, due to the influence of a stoic value.

As with GiGi, Mary's first interview was held relatively soon (about 8 months) after her disorienting dilemma (trauma). There was a slight but noticeable difference in their intellectual and affective abilities to report their experiences, representing a different level of intensity of the felt sense experience. Gigi's descriptions were frantic and carried what seemed to be the same level of energy of fear and anger as she must have felt on the day of the accident. Paralinguistic cues indicated some difficulty with reflection. By choosing to read the narrative for each interview, Gigi admittedly distance herself from any uprising of sensory experiences. While Mary prepared a written narrative, she spoke extemporaneously, with more reflection, at a slower pace of thinking and speech (although interrupted at times with para-linguistic cues as the felt sense and intellect competed with each other to come to the forefront).

Mary's Narrative

The following reflections are of Mary's lived experience of the traumatic loss of her adult son, who died 2 weeks and seven surgeries after a head-on collision with an impaired driver.

Mary, a 53-year-old female, originally from the South, is married, the mother of two. The first interview was held 8 months after her son's passing and the second 2 weeks later. Mary's experience is organized a bit differently from the others, by themes that emerged as I reviewed her transcript that seemed to correlate with the stages of embodied cognition (non-bolded terms) and the stages of grief (**bolded terms**). I thought this might bring be a more straightforward presentation of the processes as they entangle with one another through the transformative learning process.

1. The Initial Lived Experience of a Disorienting Dilemma
(Preconscious Experience of Fear and Anger/**Stage 1, Denial and Stage 2, Anger**)
2. The Last Thing I Can Do for My Son – Lockdown of Embodied Cognition
(Avoidance of Sensory or Emotional Experience/Stoic Value)
3. Connection and Disconnection
(Emotional Function of Cognition/**Stage 4, Sadness**)
4. Dissatisfaction With Medical Procedures and the Medical Profession (Anger)
(Re-emergence of Fear and Anger, Sensemaking/**Stage 3, Bargaining**)
5. Meaning Making
(Intellectual Function of Cognition/**Stage 5, Acceptance**)

The Initial Lived Experience of the Trauma (Fear, Anger and Denial)

The following represent Mary's preconscious sensory experiences of embodied cognition as she maintains a sense of fear concerned about her son's condition and then anger when she is inevitably made aware of his passing, in tandem with the grief experiences of **denial and anger**.

Not only did Mary have to deal with the initial disorienting experience of her son's catastrophic accident, but she was allowed to become hopeful about his survival over 2 weeks

and through seven surgeries, only to be told, in the end, the unbelievable news that he had passed. The night of the last surgery, Mary and her husband arrived home feeling a sense of relief that he had made it through the seventh and most difficult surgery he would have to experience. Mary went to bed in her son's room because she was having difficulty sleeping and she would have "to wind down from everything" each evening after coming home from the hospital. She stated,

So, to let my husband get some sleep, and also, I just felt comforted, you know, to be in his room. Yeah. Um, and that was his childhood room, even though it was, it's a guest room now, it was still, you know, the memories, you know.

She was awakened by the phone at 3 a.m. It was the doctor calling to let her know that her son's "numbers were wacky" and that they had decided to put him on dialysis. She stated she was fine with this as she thought it would help clean out the substances from the surgery he had just had. This final surgery was on his femur, which had been fractured in three places. After the surgery, the surgeon told Mary and her husband that their son had done very well and that he would be fine. Thinking her son was being taken care of and would be fine, she stated, "I felt hopeful, I went... I mean like I crashed back to sleep after that phone call."

Mary said she had been asleep for about 30 minutes when she was awoken by her husband coming into the room. She had been sleeping so deeply that she really did not notice him until he "slid into the bed" and was trying to wake her. This startled her because she did not know where she was, and her first inclination was that it was an intruder coming into the room. She started "just flailing around my arms and ... and my feet were flailing around like I was fighting [the preconscious felt sense response motivated by anger as a result of a sense of fear]." She mentioned she was not clear if it was sleep that caused her to be "disconnected," but

eventually she heard him say, “It’s me, it’s me, honey,” and this woke her up enough to realize it was him, and she began to settle and was able to reconnect with him.

At this point she indicated,

He kept saying things that I couldn't understand (Stage 1—denial) like, “We lost him, he's gone.” I’m like what, who, you know. I just didn't understand what he was saying, it was just too much. And, um, he finally said, you know, “Our son passed away,” and I said, “No, no, he didn't [laughing uncomfortably]. I just got off the phone with them.”

And at that point, I didn't even know how much time had gone by, you know, since the last time I spoke with the doctor, which I think was only about 30 minutes. Um, and, uh, I said, “No, he, they’re, they called me, they're putting him on dialysis and he's, he does well with that, he's going to be good,” and he kept saying, “No, he, he's passed,” and I was like, “Why, they called me, they told me he was on dialysis.” And I, he just finally got through to me, you know, and I was like, my husband said they called him next. I think that was when I started understanding.

Mary’s husband began to get through to her after telling her that he had received a call after they had tried to reach her, but she had not answered. As she heard this, she realized she had slept through a phone call and began to feel guilty (avoidance of the felt sense of fear of the reality with intellectualizing, rationalizing, Stage 1 - denial). She did not understand how it was that she was not connected enough to know that something was wrong and that perhaps they should have gotten in the car and gone to the hospital after the first call she received. She followed with,

Um, so, you know, the next thing after I realized, “Okay, this is for real, he has passed away,” the only thing I can hear is my own wailing and my whole body just gasping for breath because, you know, when you do that, I call it the ugly cry where you’re just,

whole body is just convulsing with it, you know, and, um, and like bodily fluids are coming from everywhere, your nose, your eyes. I think I may have even had a little incontinence, you know, tiny bit because your kids, you know, how that goes, all of that, your body's just like, you know, you can't get a hold of yourself and that's....

Mary stated that she had never heard herself wail that loud and that she was not able to hear anything her husband was saying because she was fighting him off physically (felt sense experience of anger and Stage 2 – anger), until her body became exhausted and “things started subsiding.” She was finally able to hear him and realized that he was trying to comfort her and that he needed comfort, too. Having her worst *fear* confirmed, she had moved into the second microprocess of the felt sense and the second stage of the grief process—*anger*. “Wailing and flailing” and the unintentional hitting of her husband, when hearing the news her son had passed, indicates a fight response, the action motivated by the preconscious microprocess of *the felt sense of anger*.

The Last Thing I Can Do for My Son (Lockdown of Embodied Cognition)

The following represent Mary’s preconscious sensory experiences of fear as she maintains a sense of denial by avoiding the reality (denial) admittedly distracting/bargaining with herself about doing the last thing she can do for her son in order to maintain her connection with him.

Mary’s focus on doing the last thing she could do for her son resurfaced throughout the interview, representing Mary’s desire, as his mother, to maintain some kind of connection as she attended to her son’s needs for the last time. This also allowed her to manage her emotions as she moved through this experience, by “doing.” For instance, when discussing making arrangements for the funeral, Mary realized,

It was [difficult], but I will tell you, it was oddly comforting for me to have something to work on, too. Like, I kept saying, “This is the last thing I can do for my son,” you know. Yeah. (She begins to struggle with a sensory experience.) And as those preparations came to an end, that's ... been hard work.

Mary related here how planning for her son’s memorial and funeral was oddly (unexpectedly) comforting because she had something else to keep her mind on. Yet, within seconds, it became very clear she began experiencing the edge of her pain as the thought came to her of how she would feel once these tasks were completed. Her voice turned to an almost inaudible muffled whisper (paralinguistic cue) indicating an ascending sensory experience as it sprouted up, moving her to an awareness of her grief. The capture of edge-emotion or the catch in her voice indicated a resistance to this sensory experience.

Mary often spoke of her spiritual connection with her children and how proud she was of her ability to have this intuitive connection with them. After receiving the call from her son’s doctors informing her they had placed him on dialysis and after being informed of his passing, she mentioned having “felt guilty” for allowing herself to sleep that night, believing this caused her somehow to affect her ability to realize that he might have needed something other than dialysis earlier that evening and caused the disconnection. She stated, (note the number of paralinguistic cues I, you know, repetitions)

I *felt* guilty, I guess. I don't know. I, I, I felt like, how could I, you know, have slept through a phone call. And I, I think too, felt, how could I not be connected enough to know that something was bad wrong with my son and that maybe we, perhaps we should have gotten in the car and started driving the first time they called. But I felt secure

enough in knowing that he was on dialysis, that, that was going to be, he was going to be, he was going to be good, and he was taken care of.

Later during the interview, she stated,

And I also remember thinking, “How could I be so disconnected from my, um, my intuition and my connectedness with my... my kids, my family?” Because they've always kind of called me a witch [laughing inwardly], that I just knew things, they're like “How does a mom know these things?” I'm like, “I just feel them.” I know I'm, you know, like that deeply connected to where, um, I am somewhat of an empath, you know? But somehow, I was disconnected that night.”

This example offers an opportunity to clarify the misuse of terms regarding a thought (thinking) and sensory/emotional (feeling) experiences. The term *felt* is often used to refer to having guilt (thoughts about doing something wrong)—in Mary's case, for being tired or disoriented. More likely she *felt* disappointment, anger, or even some sadness under the *belief* or *thought* of “having done something wrong.”

This is important to note because, pursuant to grief work, understanding what is actually being *felt* about (or under) a thought, not the thought itself, helps identify what stage of grief a person might be in and what work is left to bring closure to their grief. When identifying a *thought* as a *feeling*, the mind/body association is bifurcated, and the feeling, considered a thought, is believed to be located in the brain. This keeps the individual “in their head” while missing the grief process going on in the body.

If, in Mary's case, the feeling underlying the thought of guilt was perhaps irritation (a sub-level of anger), one can discern she was in Stage 2 of the grief process and still had this stage and three more stages to process. However, if she was feeling sadness about the thought of

having done something wrong (guilt), then, she was in the fourth stage (sadness) approaching the fifth stage (acceptance).

It is important to keep in mind, there are often oscillating movements through the stages of grief as an individual *bargains* with and attempts to negotiate sensory/emotional experiences and intellectual experiences. An example of this might be a movement to Stage 3 (bargaining—an intellectual pursuit), indicating a movement to *thinking* about the reality of the situation, inciting a regression to Stage 2 (anger), a *sensory* response. Another example might be a movement to Stage 4 (sadness) becoming too painful, inciting a regression back to Stage 1 (denial—lockdown of intellect). These oscillations might represent only one grief process or might imply there are layers of grief from other related issues that need to be processed independently as well. Other than someone taking a long time to process their grief process due to the lock down of embodied cognition (Isabel), the entangling of more than one grief issue also explains why some grief processes last longer than others.

When Mary talked about planning arrangements at a funeral home, the thought of her connection with her family came up again. Mary related, she and her husband paid for the whole package of services offered by the funeral home; however, she was aware of not feeling right (indicating a felt-sense experience) about it somehow. As she recollected the moment during the interview, a thought seemed to bubble up, and she pivoted to mention again the deep connection they (as a family) had to the environmental center near their home. They gathered often at this place, and she believed their connection with their son, brought to her husband's mind the sudden recollection of this place as a location for the memorial. Mary stated, "And it wasn't until that deep connection we had with him and his sister, together as a family, brought to mind the environmental center." As a sensory experience began to emerge from the thought of having a

deep connection with her son, she took an intellectual jump to avoid the sensation (potentially sadness—Stage 4) and acknowledged it was her husband’s idea.

Mary continued, “I was very thankful for ... for the way it all just turned out. So, very cold in business at first, and then through connection, again the whole surface changed.” I asked her about “surface.” Mary responded that the atmosphere (what I understood to mean affective or emotional atmosphere) had changed due to their decision to have the funeral at the environmental center.

During the second interview, perhaps due to some “nudging” from talking about the experience at the first interview, Mary recalled for the first time a memory she had on her way home after the last visit with her son at the hospital:

So, I, after all of that was done [doing the last thing she could do], it was me sitting in my grief with my husband. And, and my mind, my body kind of shut down, I just sat there like a lump, but then my mind raced and I, I saw memories from ... I mean from the minute ... *Actually, you know what I felt before that happened.* I felt what it felt like to have him in my womb. And it felt like he had been ripped from it. I’d forgotten about that, that, that happened for days I could feel him. It was disturbing. But eventually that feeling went, and I just saw all kinds of memories from ... from his childhood, from birth to the last time I saw him. And I kind of, you know, grieved things that I knew he would miss and never see. Like, we were looking forward to watching the new episodes of *Stranger Things* together, um, knowing that I’d probably never be a grandmother from him and/or see him get married, you know, things like that, big things to little things. And I could see it in my mind's eye, you know, like it was ... like I was watching TV.

At a follow up session, I asked her to tell me more about the experience of coming to the sudden awareness of that moment during the second interview. Mary stated that upon leaving the hospital after seeing their son for the last time, she was concerned about being emotional on the way home because she did not want to upset her husband while driving and creating a safety issue. She remembered “turning inward,” crying and screaming in silence, until she was numb, “not thinking or feeling anything ... like a zombie [lockdown of embodied cognition].”

She said she then “came back to *consciousness*” with the memories of her son as an infant and how it felt to carry him in her womb. She remembered him kicking and moving around, which comforted her because she knew he was safe within. “It was a special physical bond and closeness I felt.” It was at this moment she felt him leave her body, “not by the traditional painful vaginal birth, [but] it was through my stomach and straight out, and I could see his spirit and earthly infant form leaving my body.” She described the pain as

so much deeper than the pain of a vaginal birth. It was internal nerve pain, like actual nerve pain which was then followed by the realization that he was gone (I knew this already), but *my body* was now reacting to him being gone. My own body reacted with, first, like a punch to the gut and I was hunched over a bit in the car, and then I was propelled backwards slightly (in other words my back felt like it was in a slight inverted arch like the letter C), this physical reaction was involuntary.

Connection and Disconnection (Sensemaking, Bargaining, Sadness)

Mary revealed she had experience some fear about this incident as she was not sure she was still connected to him; however, she felt some sadness about this as well. The latter would indicate embodied cognition was unlocked and meaning making was possible. The lock down and unlocking of embodied cognition happened on and off throughout the interviews as she

teetered in and out anger or sadness as she discussed parts of her story. The following is an example of the latter. Mary stated,

I had to think of, you know, personal connections that I could convey [at the memorial] in front of people that would be meaningful, you know, like the “shoes story” [a personal story about her son and some shoes], um, you know, things like that. And yes, that was part of the doing the business, in, you know, you're getting it done but the meaningful, softer side that's connected, that's where the meaning came from.

I asked about “meaning.” She responded, “Maintaining a sense of connection and having him in essence present, softens the blow of the loss.” This helped her distance from the conscious emotional function of sadness knowing she had a connection.

Also, as Mary reflected on the memory of her son being ripped from her womb, she began to negotiate (bargaining- Stage 3) ideas she had learned about human bodies having brains in the gut, heart, and head. She wondered if the feeling of her son having been ripped from her womb was her gut brain reacting to the “severe disorientation” of losing her son, then moving to her brain for translation, and finally to her heart as she “broke again in that moment and I was not able to keep those feelings internal any longer regardless of trying to keep us safe in the car.” Although she ended up telling her husband about this experience, because he was concerned about her and asked, he was still able to continue driving even though he was crying too. Trying to make intellectual sense of the experience, she wondered if it was the three brains working together to try to help her cope. She also wondered if

the physical pain I felt that day of him leaving my womb, which I believe to be the deep bond we had as mother and child, was his spirit leaving this earth and I could feel that. I felt like something was no longer in my core. There are studies that have found that

mothers are connected to their children at a cellular level as they have found the child's DNA in the mother's brain decades after birth. Not sure if this has anything to do with the pain, but certainly the connection was physically broken that day.

Coincidentally, I had just listened to a lecture on the Hindu concept of chakras and learned that the loss of one's most beloved relationships and connections manifest in the Sacral Chakra. This chakra is located below the navel and encompasses the sex organs and kidneys. This is the area of the human body responsible for holding on and letting go. It seems Mary had effectively released enough sorrow over the 8 months to finally let go, releasing the memory to her consciousness during the second interview.

Lastly, while talking about her experience returning to the hospital after her son passed, and before arriving to their son's room, she caught sight of the glass doors at the front of his room, and before speaking with the nurse that approached them, she stopped abruptly as she was stricken by what she saw.

I remember, I see it like it was yesterday, their, their walls and, um, doors are glass.

Okay? So, it kind of doubles as a whiteboard if you will, and on the outside, the whole entire glass wall, from as far up as anybody could reach all the way down to the ground and on both sides had ... uh math problems of drugs, of anything they did to him, I think. It was like a log, like they were, as they did stuff, someone was standing there writing it on... well, the windows and doors of his room on the outside, since he went to the ICU ... Yeah, I wished I would have taken a picture of it all. I really do because I ... Yeah. Yeah, absolutely, um, that would have been something to look back on to see if there was any kind of, like, malpractice or anything going on. But, um, that aside, it was, it was, it was shocking to see all of that. And I instantly knew in my heart that things were, it had gone

really bad. I mean obviously they did try, although he passed away, but, I mean, like it, they really tried, you know, to save him.

Coming to this conclusion, exemplifies another of Mary's experiences of the felt sense (location of meaning) and a *preconscious* knowing, a *knowing instantly in her body* that things had gone really bad. She mentioned earlier that records had not previously been written on the glass walls, so it was a new experience for her, and it spelled out to her immediately that it took a lot of work, and she immediately realized then that they "really tried to save him."

Dissatisfaction With Medical Procedures and the Medical Profession (Re-emergence of Anger to Distract from Sadness?)

Eventually, Mary began bringing up several occasions when the hospital personnel seemed to be inadequate and other issues that "annoyed" her (sublevel, Stage 2—anger). She initially referred to the doctor who called in the late hours of the night to tell her they were putting her son on dialysis because they were having difficulty stabilizing him. She felt content with this, at the time, because this had happened before, and it had helped. However, later, after hearing of his death, she began to realize that her son must have been in a more serious state than before and seemed "annoyed" the doctor had not told her so. She also seemed "annoyed" that the doctor asked how long it would take for them to get to the hospital after being told he had passed.

She stated that, after this, she had no recollection of getting ready to go to the hospital (indicating the overall *lockdown of embodied cognition* and inability to process thought). She stated,

Um, so, somehow, we pulled ourselves together, got in the car, drove to the hospital in total silence because, you know, at this point we're kind of like, I don't know. Yeah.

You're, you're processing your, um, numb, you know, um, how could this be, you know, kind of thing, unbelievable. Um, I, I wondered, like, why they couldn't get him connected quick enough, you know.

Upon arriving to the hospital, they had to get in a long line of visitors, at four in the morning, and Mary seemed “annoyed” that there were so many people there, and yet, they had to wait to see their son who had passed. When they arrived at the front of the line, she told the check-in lady what they were there for, and the lady said she would have to call up to see if both could go up to see their son. Although she was aware of the COVID-19 restrictions at the time (January 2022) she mentioned being “frustrated” by the insensitivity of the lady. She also thought the ICU would have called this lady prior to their arrival and told her to send them up.

After seeing the glass doors of their son's room covered with the writings of what looked like a serious emergency, a nurse came over to speak to them. They were informed that he was still hooked up to all the equipment because an autopsy needed to be performed. Mary stated that she was “almost glad they were going to do it ... um.” Along with the other paralinguistic cues such as “you know” and the stuttering in her speech, “um” is another example of how Mary seemed to cut herself off all sensory experience while discussing an event, ending sentences quickly and moving on to talk about “doing.” In another example, as she moved closer to the room, she stated,

And he's just lying there, you know. Um, so, I can see him. Yeah, it's for sure. Okay. So, we walk in and we're on either side of him, holding his hands, you know, talking to him, telling him how sorry we are this happened to him. And, um, and we loved him, and we knew he loved us. It was just, you know, stuff.

Here, as she acknowledged “it’s for sure,” bringing to her *consciousness* the reality of his death, she moved quickly to another topic. She said they told him how sorry they felt and how much they loved him, she mentioned her awareness of knowing he loved them, and she cut herself off again: “It was just, you know, stuff.” The emergence of sadness?

She moved immediately to a discussion about having been asked if she and her husband wanted to talk with a chaplain. They agreed, and she stated, “That, though was a ‘disappointing’ awkward situation (mixture of Stages 2 and 4—sublevel of *anger* and *sadness* and *sensemaking*).” She stated that the chaplain came in and did not say a thing, to the point that she finally felt obligated to say something to start a conversation. She asked, “How do I leave this room without him?” She considered the situation odd as he still did not say a word. Eventually, she stated that she would be honored if he would say a prayer, just to get him “out of her hair.” He said a prayer, gave her some information on grief, and left the room. She stated, “He was no comfort at all.” At this point in the interview, as she was connected to this feeling of disappointment, as she was trying to process this event intellectually, she suddenly remembered another event during the interview:

I never spoke to a doctor once I got there. A doctor never came in and told us anything about what happened. So, um, you know, we, we finished up saying, you know, our goodbyes. I looked around the room to, um, I happened to see his shoes and, you know, his, uh, license and pair of socks, and it was in a bag. So, I grabbed up the bag and, um, actually there was one more item that was ours, it was a fan, a little tabletop fan that we had bought for him while he was in ICU because he had a fever and was hot and he was, you know, while he was unable to communicate with us, he was, you know, fanning himself like “I’m hot,” and so we’d gotten that for him because (sounding annoyed) they

couldn't find one in the hospital and they supposedly have them available (annoyance is a sublevel of Stage 2—anger).

She stated when they left the room, they were approached again about the autopsy and about the funeral home they had selected. This seemed to cause some “irritation” (sublevel, higher than irritation, of Stage 2—anger) as she stated, “And I said, ‘Well, no.’ Because we hadn't, you know, thought about that yet. We haven't done any research on any of that. We did not expect him to pass away.” After that, they left the hospital and “rode silently all the way home, um, and, I mean, we just hadn't grieved for quite a while, quite a while, it was still too early to.” This clearly indicates that, previously, a decision was *consciously* or unconsciously made to not yet grieve because “it was still too early to.”

Once they arrived home, instead of grieving further (they made a decision not to grieve), they decided to call family and friends in a hierarchal manner, with their daughter being the first. They could not contact her (she was sleeping) and called her boyfriend to have her call them. Although they had not told him her brother had passed, he already knew about the severity of the situation and felt it necessary to drive over to wake her and stayed with her while she received the news. Mary stepped into “mom mode” as she talked with her daughter and “let her off the hook from having to continue as the telephone tree person” as she had done before he passed. Although it was previously OK for her daughter to make and receive calls to family and friends for updates about her son prior to his death, Mary did not feel it was her responsibility to make calls about his death.

Mary's final comment indicated that at the time of the interview, she had still not been able to achieve any consistency in processing her grief:

After, you know, that initial funeral and celebration of life and everything was done, um, that was rough on me. But, um, then, you know, other things popped up like, okay, now the estate, now, you know, dealing with the government. Yes, the court case, the civil case, you know. Absolutely all of that, um...As those things come to a close, each time I'm grieving over and over again. Yeah.

Trying to Be Strong (Intellectualizing, Rationalizing, Influence of the Stoic Value)

Mary often discussed "trying to be strong." She was proud of her ability to be strong and do what needed to be done, stating, "I know that's what it is [her ability to be strong] because I can, I can, um, be strong and I can go to work, especially if it was for anybody in my family and friends, too. Um." She spoke to her ability to not show emotion: "I tried to stay strong in the hospital. I was, that's, that was my jam, I was good in the hospital, my husband was good outside of the hospital taking care of business." The fortitude in this belief seemed to wane, however, as she and her husband stood on either side of their son's hospital bed, saying their last goodbyes:

Intellectually, I know that this type of thing breaks marriages. I mean, it just does. We are the strongest. And we are strong, like, I think of us as being like the perfect couple, the perfect marriage and everything, you know, we're very blessed. And, again, the counselor in me comes out, and over our son's dead body, you know, I looked at my husband and I said, "You know, he'd want us to stay together for this." Never ever ... ever have we thought of getting, you know, like separated, a divorce, anything, why would I say that now, you know. But intellectually I know I can't take stuff like that for granted.

Later, she began questioning her strength:

Um, but I also feel like, I don't know if it's because being a mother or a woman or what or just, I mean, I view myself as a strong woman. I do. Um, but I feel like it's selfish at

times, you know. [Interviewer: “Not having feelings?”] Well, not to have feelings, um, in the moment of crisis. Yes.

Mary broke the reflection of her last statement and suddenly resuscitated her sense of “being strong,” stating, “My husband, um, gets very emotional very quickly and can't function a lot, you know, when stuff like this happens, but I can. It's that crisis sort of thing.” Mary eventually revealed the source of her “need to be strong.” While informing family members about the death of her son, after reaching those she felt she should call, she decided to text the rest instead. Having felt more comfortable texting these people, she related,

Maybe it was kind of like being behind a wall, where they couldn't see or hear crying and the wailing and all that, you know, and maybe there's a little bit of me that just didn't want people to see how weak I was at the time. [Interviewer: “Weak?”] Uhm. *Show weakness um showing weakness has never been ... I mean it's something I've been taught not to do and don't want to do, um.*

Mary acknowledged her belief that showing emotion was a sign of weakness, came from having been raised in a culture she understood looked down on the public expression of emotion.

During the first interview, Mary focused on the “last thing she can do for my son” and “trying to be strong.” She admitted to a focus on “doing” and how planning the memorial distracted her from the emotional experience she was unwilling to have at the time, by keeping her mind on something else. She reported that in a crisis she does very well; however, her husband does not, and for this reason she felt the need to remain strong. The desire to continue to do what she could for her son prior to his burial indicates a need to maintain the connection (avoid the emotion that might come from the sense of disconnection) that she felt strongly about having with her son and family.

Mary and her husband were still tied up in legal battles, sustaining the anger. Although she experienced some sadness, she was unable to fully move from anger to solely the fourth stage of sadness to eventually complete her grief process, as she continued to be provoked by the prospect that the “murderer” might get off. It will be a long time before they can achieve the last stage of the grief process, acceptance. After the legal battles, Mary and her husband are planning to spend time at a retreat that would allow them to mourn the loss of their son more effectively. At the time of this writing, 28 months after her son’s passing, the legal battles have not ended.

Findings

Although the emotional and intellectual aspects of Mary’s traumatic lived experience will take a significant time to come to closure, findings reveal, 8 months after her experience, how the lockdown of embodied cognition—*the felt-sense* experiences of *fear*, *anger*, *flocking/phantasia* and *emotion*—can interrupt a grief or transformative learning process. Additionally, these findings show how a stoic belief supported the suppression of a grief process.

Preconscious Microprocesses of Embodied Cognition

- **Fear** - Comforted by the fact that her son had made it through the last grueling surgery and was going to be put on dialysis (because it had helped before), Mary fell asleep, and she fell hard. When her husband entered the room later, the felt sense/phantasia manifested first as the sensory microprocess of *fear*, creating an awareness of someone entering her space. Unable to awaken enough to interpret the situation, she responded with the second microprocess of the felt sense, the primal instinctual motivator, *anger*, to *act* and do whatever she could to protect herself. She continued to flail her arms and legs, trying to fight off what seemed to be a threat, a stranger in her room. As the room was dark, she was unable to use her vision to

engage in *flocking*, the third microprocess of the felt sense, to recognize who it was and identify a sense of safety. However, she eventually heard a familiar voice, knew it to be her husband's, and came to know she was safe.

- **Fear** - Unfortunately, the felt sense/phantasia experience was immediately reactivated as Mary was bombarded by another overload of sensory information when she heard about the passing of her son. With the most dreaded felt-sense experience of *fear* realized, the overload of sensory information caused a lockdown of embodied cognition. In an initial state of *denial* (Stage 1 of the grief process), she was unable to intellectualize or make sense cognitively of what her husband was saying. Mary began asking a flurry of questions, in a subconscious effort to *willfully* detain the *preconscious* sensory experience of anger (Stage 2) of the reality of this news and the eventual *conscious* emotional experience of sadness (Stage 4).
- **Anger** – Her husband attempted several times to persuade her of her son's passing before he finally said the piece that would complete the puzzle for her and clarify her perception of reality. He informed her the hospital had called him when she had not answered the next call that came in because she was sleeping so hard. Immediately, Mary *willfully* moves to intellectualizing and rationalizing at a sublevel of anger—*irritation/annoyance*—about the fact that she was unavailable for the phone call (to stall the oncoming *conscious* devastating experience of *sadness*).
- **Anger** - She began focusing on what she and her husband could have done earlier by going to the hospital after the first call or how she may have been responsible for what happened. This would allow her to sustain *denial* and dwell in a *comfort zone of avoidance* in an attempt to further avoid the agonizing reality and ensuing conscious

emotional experience of sadness. When these thoughts became unreasonable, she was forced to contend instinctively with the reality of her son's death, and she once more began discharging her *anger* through the physical *action* of flailing and fighting off her husband (fight response) until she became exhausted.

- **Anger** - Mary's initial experience of hearing about the loss of her son consisted primarily of the felt-sense edge-emotions of *anger*. She consistently attempted several times to detach willfully from these sensations by shifting her focus to finding safety in a *comfort zone* and making intellectual sense of the situation. She was processing the first three stages of the grief process: *denial, anger, and bargaining* simultaneously. Although she did not speak openly to sadness during the interview, when asked later if she had felt sadness that day, she said, "Oh, a lot."
- **Lock down of Embodied Cognition** - From years of practice, Mary had become adept at willfully locking down embodied cognition and avoiding the expression of emotion in public. Throughout her interviews, Mary mentioned she was very proud of her capacity to remain strong in difficult times. She eventually revealed she had been taught that showing emotion is a sign of weakness, and it was "something she was not to do and does not want to do." The misunderstanding of the stoic belief or value of "enduring pain without the expression of emotion" became a barrier in her grief and transformative processes. This belief supports a subconscious turning on and off, by way of avoidance (denial), the processing of sensory experiences (fear, anger) or the emotional function of embodied cognition (sadness), impeding movement out of Phase 1 of the transformative learning process.

Early in her disorientation, Mary attempted to prevent any more sensory or emotional experiences after learning of her son's passing, by using her intellect to convince herself she needed to "do for her son," by becoming concerned about why she was disconnected from her son and was not intuitively aware of the situation before he died, by dredging up thoughts of guilt about having done something wrong, and then by focusing on the necessary duties of planning for her son's memorial, all to prevent her from delving into the conscious sadness of her loss.

At the hospital, Mary continued maintained a lockdown of embodied cognition even as they prepared to say their last goodbyes to their son. She stated she could not recall how she and her husband had dressed or even got to the hospital.

- **Anger** - Yet, after their arrival, she slipped back subconsciously into the second preconscious microprocess of anger (and Stage 2 of the grief process) as she slowly became more and more "annoyed" (sublevel of anger) with the hospital, medical professionals, and chaplain. She was already "annoyed" that she and her husband had to buy a fan for him, early on, when the hospital had fans but could not seem to locate one for him. She was "annoyed" that there was a line of people waiting to see their family members at such an early hour when they got to the hospital, delaying her ability to see her son. She was "annoyed" that the hospital staff had to check if both of them could go up to their son's room at the same time (due to COVID-19 restrictions).

She was "annoyed" that whoever called them about their son's passing had not prepared the hospital staff to allow them to go on up once they got there. She was "annoyed" that the chaplain did not seem to be of any help, saying nothing until she

asked him to say a prayer. Then, as they were leaving, she became annoyed about being asked what funeral home they had selected, as they had not planned on her son's death since he had survived six and then what seemed to be seven surgeries.

Although Mary had the opportunity to discharge a significant amount of the energy associated with the *preconscious* microprocess of anger with her husband earlier, that anger was reignited at the hospital. She stated she generally has no problem expressing her anger; however, she seemed to have curtailed her ability to *act* on her annoyance while at the hospital and maintained a sense of composure. In fact, the term "annoyance" itself seems to indicate an intentional minimization of her probable true experience of anger with the hospital, supporting her belief in not expressing emotions and continued residence in a *comfort zone*.

- **Lockdown of Embodied Cognition** - Mary made only one reference about feeling sadness or about having cried outwardly in sadness prior to the interview, other than having "wailed" when she first heard of her son's passing and as she cried "inwardly" when she left the hospital. This may indicate the influence of the stoic value of "being strong" by maintaining a *willful* determination to not incite her edge-emotions or *act* weak during the interviews.
- **Lockdown of Embodied Cognition** - During the interviews, Mary prevented momentary experiences of the felt sense/phantasia (anger) and emotion (sadness) by using paralinguistic cues, such as "you know" and "um," as well as halting speech, silence, and moving her eyes up to forestall the welling of tears. She used these elements of communication to pull herself into the intellectual functions she had available. When bringing to *consciousness* her deep spiritual "connection" to her son

and the rest of her family, she quickly anchored to the “cold business” of making the funeral arrangements as “the last thing she could do” for her son, to distract herself (*action*) from the emotional experience.

- **Lockdown of Embodied Cognition** - Later, after 8 months, Mary continued unconsciously to hold back the memory of having her son “ripped from her womb” in the lockdown of embodied cognition. It seems she was too busy with the business of dealing with her son’s death to access this memory. According to Levine (2015), during a disorientation or trauma, “our feeling state may be the major factor determining what and how we remember a particular event” (p. 3); hence, until she had the chance for a more extensive processing of sadness, the memory of him being ripped from her womb had been inhibited (van der Kolk, 2015). After sitting in and processing her experience for 8 months, she was able to, albeit cautiously, release of the memory into consciousness while discussing it during the second interview.

Conscious Microprocesses of Embodied Cognition

- **Unlocking Embodied Cognition** - Mary was able to choose when to experience her sensory and emotional experiences by *willfully* turning them on or off. While turning them off may be considered an avoidance, she stated she maintained an awareness of what was happening in her body and was ready and willing to sit in them when it became appropriate. Mary stated she did have the opportunity to process and release some energy of sadness over the preceding 8 months prior to the interviews, so not to store it. She talked and cried a lot with her husband, family, and friends, she journaled in a special journal and wrote letters to her son. She stated that the letter writing

seemed to help the most. She also believed this work gave her an opportunity to reflect (Phase 2, transformative learning process), indicating a move out of Phase 1.

Healing requires an eventual movement to, in, and through the conscious emotional experience of sadness. Fortunately, Mary's profession requires an understanding of the grief process, self-care, and she was familiar with the processes of transformative learning theory. Thus, she understood at some level that processing her grief would facilitate her healing and movement to a transformative learning experience.

In summary, Mary's knowledge about the grief and transformative learning processes likely supported her ability to negotiate her experience effectively, indicating education about these processes facilitates movement to healing and transformative learning. She was able to withhold the preconscious microprocess experiences of fear, anger, and flocking willfully by using paralinguistic cues and action, however, and when alone, she willfully allowed the expression of these experiences.

She states she participated in a significant amount of research endeavors to increase her knowledge supporting a change in perspective and an eventual release of energy. Although she was still unclear about some aspects of her experience, she recognized seeking knowledge about her experience helped support the release of energy prior to the interviews. She believes this and some learning she experienced during the interviews, resulted in two changes of perspective or frames of reference regarding spirituality and grief.

The sudden appearance of the memory of feeling her son being ripped from her womb at the second interview validates memories are not stored until the sensory and emotional experiences of a disorienting dilemma or trauma have been processed. This memory had

otherwise been suspended for eight months. Brookfield's (1994) "*moment of suspension*" (p. 59)—of Wile E. Coyote stuck in midair when he runs off the edge of a cliff in the Road Runner cartoons—seems to fit Mary's lived experience of trauma.

Conclusion

In the previous discussion of the participants narratives, an integration of the theoretical perspectives of Johnson's (2015) and Welsby & Pexman's (2014) embodied cognition, Mezirow's (1978) transformative learning theory, Mälkki's (2011) theorizing of the emotional dimension of transformative learning, Gendlin's (1991) theory of understanding, Barrett's (2017) theory of the construction of emotion, and Kübler-Ross' (1970) grief process, supported the identification of the microprocesses of embodied cognition involved in the transition through phase one of the transformative learning process—the disorienting dilemma and the prospect of a grief process as a construct of the emotional dimension of Mezirow's transformative learning theory.

CHAPTER 5

CONCLUSIONS

To summarize this research, the identification of three *preconscious* microprocesses of embodied cognition (fear, anger, and flocking) in addition to the two *conscious* microprocesses of embodied cognition (emotion and intellect), aided in understanding what takes place in the first phase of the transformative learning process in the lived experience of a disorienting dilemma. The alignment of these naturally occurring microprocesses of embodied cognition with the stages of Kübler-Ross' (1970) grief process, served to establish the microprocesses as constructs of an emotional dimension to transformative learning theory.

In turn, this information supported an extension to Mezirow's (1978) theory with an emotional dimension, Mälkki's (2011) theory by providing an enhanced understanding of the preconscious role of reflection, and enhanced Kübler-Ross' theory of grief as a valuable resource to processing any level of loss, thwarting or disappointment involved in a disorienting dilemma, not just issues of death and dying. Moreover, understanding how these sensory and emotional experiences, and a stigma surrounding these natural processes, can evoke a lockdown of embodied cognition, offered insight into strategies for managing interruptions to an organic process of development and growth.

With a specific focus on the lived experience of sense making and meaning making through embodied cognition, the methodology employed a narrative inquiry, incorporating storytelling and personal narratives to explore the subjective experiences and perspectives of

participants in a disorienting dilemma. Data gathered revealed themes supporting the following conclusions:

Conclusion 1

Based on the findings, these narratives validate the preconscious microprocesses of embodied cognition as fear, anger, flocking, emotion, and intellect (edge-emotions) and the natural whole-body/mind location of meaning in a disorienting dilemma. (Gigi)

Conclusion 2

Based on the findings, memories are not stored until the sensory and emotional experiences of a disorienting dilemma or trauma have been processed.

Conclusion 3

Based on the findings, Mälkki's (2011) theoretical concept of edge-emotions, the *preconscious* microprocesses of the felt sense—fear, anger, and sub- or supra-levels of these—provide a tier of *preconscious* reflection integral to the transition to the *conscious* functions of embodied cognition. (Marilyn, Sarah, Isabel, Mary)

Conclusion 4

Based on the findings, when an effective action is not taken in response to a disorienting dilemma, the three pre-reflective *preconscious* microprocesses of the felt sense—fear, anger, and flocking—and the *conscious* microprocess of emotion, can individually or collectively lock down embodied cognition. (Gigi, Charles, Marilyn) When action is taken they can individually or collectively unlock embodied cognition. (Marilyn, Sarah, Isabel, Mary)

Conclusion 5

Based on the findings, when the preconscious microprocesses or the conscious emotional microprocess of embodied cognition are unconsciously or consciously resisted, they can

maintain a lockdown of embodied cognition creating a barrier to subsequent phases of the transformative learning process. (Charles, Marilyn, Sarah, Isabel, Mary)

Conclusion 6

Based on the findings, when the pre-reflective *preconscious* microprocesses—fear, anger and flocking—are acknowledged and experienced physiologically, the *conscious* role of emotion provides an opportunity, through a grief process, to process loss, thwarting, or disappointment, providing healing and the unlocking of embodied cognition. (Marilyn, Sarah, Isabel, Mary)

Conclusion 7

Based on the findings, processing (experiencing) sensory and emotional energy clears space for the intellectual function of embodied cognition to enable reflection and eventual *acceptance* of the reality of the experience (the fifth stage of the grief process), promoting transformative learning. (Marilyn, Sarah, Isabel, Mary)

Conclusion 8

Based on the findings, advancement to phases beyond critical reflection (phase three) through research, supports movement through the transformative learning process, however, the initial microprocesses of embodied cognition have to be fully processed for eventual transformative learning occurs. (Sarah)

Conclusion 9

Based on the findings, having knowledge about the phases of transformative learning and Kübler-Ross' grief process, supports movement to transformative learning. (Mary)

Conclusion 10

Based on the findings, a misapprehension of the role of sensory and emotional experiences in a lived experience of disorientation, and a historically indoctrinated societal stoic

value of enduring pain without the expression of emotion, both contribute to the resistance of sensory and emotional experiences creating a barrier to the transformative learning process.

These conclusions indicate cognition does not solely happen in the brain, and learning is not solely an intellectual pursuit. Cognition refers to the mental processes involved in acquiring and processing information, while transformative learning refers to the eventual acquisition of information resulting in a new frame of reference or meaning perspective. Thus, the two conscious functions of emotion and intellect supported by three preconscious microprocesses in embodied cognition, are essential to movement through the first phase of transformative learning—the disorienting dilemma.

Transformative learning fosters personal growth by enhancing critical thinking, adaptability, empowerment, and supports a healthy whole-body living. As ongoing sensory experiences in the body “preconsciously reflect” on incoming sensory information from the environment, this process informs the body/mind, in real-time, of needs, stressors, or threats needing to be addressed. Learning how to address these internal warnings comes by listening in to, sitting in, or lingering on the sensory or emotional experience of disorientation and attending to the uncomfortable preconscious and conscious microprocesses of embodied cognition (Brach, 2004; Schroder et al., 2023).

Sitting in and accepting edge-emotions or emotion, sends a signal of acknowledgement (Schroder et al., 2023), releasing from the body the no longer necessary uncomfortable accumulated energy that served as a warning signal. Restricting or avoiding the sensory or emotional experience of this energy can cause a lock down of embodied cognition. A lockdown interrupts learning by resulting in an inability to receive or effectively use sensory, emotional, and intellectual information effectively to resolve a need, stressor or threat.

There is a need to legitimize all these facets of embodied cognition as inherent resources of the body and as vital assets for cultivating holistic learning experiences, personal development, and living. This can be done in all adult education systems available, by increasing awareness and understanding of recent findings in the field of neuroscience about the concept of embodied cognition, legitimizing the sensory and emotional functions of cognition as adaptive, integral, and equally important extra-rational and natural resources to the intellectual function in cognition, and reducing the stigma associated to sensory and emotional experiences.

Moreover, the research revealed the importance of fully comprehending the composition and process of embodied cognition as it relates to learning. Unfamiliarity with the microprocesses of embodied cognition results in a prioritization of intellectual functions over sensory or emotional experiences, dichotomizing the cognitive process and restricting the use of one half of the natural resources available for processing information effectively. Without the use of both the emotional and intellectual functions of embodied cognition, transformative learning is thwarted and a lock down of embodied cognition can persist for years.

Social Emotional Learning programs (SEL) are now informing children about the importance of “feelings” and how to deal with them effectively. More explicit instruction in adult pedagogy regarding the physiology and the need for healing from a disorienting dilemma would increase the awareness, understanding, and importance of

- the concept of embodied cognition as an integration of emotional (extra-rational) and intellectual (rational) functions of cognition,
- the role of the *preconscious* sensory and *conscious* emotional microprocesses involved in embodied cognition,

- legitimizing these sensory and emotional experiences as resources of nature necessary for successful transformative learning,
- how these experiences help construct the emotional dimension of transformative learning,
- how resisting or avoiding these experiences impedes transition to subsequent phases of the transformative learning process,
- how the emotional dimension of transformative learning incorporates a grief process to allow for processing of any level of loss, thwarting, and disappointment occurring as a result of a disorienting dilemma or trauma,
- of what a grief process looks like not just by identifying the stages, but, by discussing the purposes of the stages and aligning these with the microprocesses of embodied cognition to identify barriers to transformative learning,
- how a grief process can occur for any level of loss, thwarting or disappointment, not just death, dying, or trauma,
- how the misuse of the term “feeling” with sensory, emotional and intellectual experiences, makes it difficult to identify which stage of embodied cognition or stage of the grief process has become a barrier to transformative learning causing a lock down of embodied cognition,
- how determining what stage is being occupied, helps determine what needs to be done (perform an action, change a thought, move away from) to resolve the disorienting dilemma

- how to identify sub- and supra-levels of major sensory or emotional experiences simply to accurately identify which stage the process of embodied cognition or the grief process might be stalling the transformative learning process,
- the difference between “effective coping techniques” (e.g., breathing, writing, sensory integration, yoga, therapy, EMDR, CBT) and “ineffective coping techniques” (e.g., alcohol, drugs, gambling, shopping, cutting, eating, gaming, social media, and anxiety) and how the latter are not technically coping techniques, they are distractive, avoidant, and resistant strategies disrupting transformative learning and eventually lead to addiction, and
- the difference between the little ‘s’ stoic value with the big ‘S’ philosophy, and eradicating the stigma associated to expressing sensory and emotional experiences.

Trustworthiness

In research with participants who have experienced a disorienting dilemma (or trauma), Newman et al. (2006), speaks to concerns about “invisible survivors” (p. 31), individuals who do not realize they have been disoriented or traumatized. There are many factors obviating there is no conceivable way to know how to provide complete emotional protective coverage in any research study, much less one involving participants who have experienced a disorienting dilemma (or trauma).

The potential for an unexpected stress reaction during the study is possible, and only “best practice” and ensuring professional coverage is available, is expected should the questions evoke a sensory experience causing possible a negative reaction or re-traumatization. Given the potential sensitivity of the research, after a prescreening and more information about the study,

this allowed participants more time to think over the prospect of participating in what might be considered a difficult research topic.

The selection process aided in the selection of participants who could decide to participate in (or be excluded from) the research by communicating their understanding of the research, obtaining their mental health history, history of treatment, and their rationale for deciding to participate.

In this research, written narratives provided additional safeguards to help prevent a re-triggering. They worked slowly to move the participant closer and closer to the more difficult sensory and emotional experiences, by not requesting any sensory or emotional experiences divulged in the first narrative. These would be held until the second narrative. Writing tends to help reduce the amount of sensory or emotional experience one might have with a reporting of a personal disorienting dilemma (Pennebaker, 1997). Generally, this method reduces the potential for bringing difficult emotions to the surface.

I consistently reminded the participants that they had the opportunity to take a break, to stall, stop, or end the interview at any time. Only Isabel took advantage of this opportunity by taking several breaks.

I made notes about questions I had and then asked these after the participant's review of the event. I made additional notes after the interview about descriptive and reflective thoughts, emotions, and wonderments. I held a follow-up session to validate and verify my findings in a member check with each of the participants after the analyses were done. They all acknowledged the accountings were "right on."

I did extensive research on doing research with participants who had experienced trauma to cover doing research with the experience of a disorienting dilemma. According to Newman et

al. (2006), the majority of participants who have been in studies regarding trauma were appreciative of being able to participate with the prospect of helping others.

Limitations and Future Research

Grounded in phenomenology, conducting a narrative inquiry and indeterminacy present challenges for replicating or generalizing the subjective, lived experiences of participants facing a disorienting dilemma, to a larger population. Nonetheless, there are suggestions to enhance the potential for achieving this possibility in future research or for advancing knowledge in this area.

As only eight students replied to the recruitment letter, a larger number of participants might have been helpful. It was necessary to exclude two of these respondents due to the inability to connect with one due to work issues, and the possibility of a confidentiality risk for the other. The sample collected included five females and one male, five White participants and one Portuguese participant who considers herself White. This limitation affected the generalizability of the results to more diverse populations.

A longer recruitment period might improve the number of students responding to the study and increase the diversity within the sample. The recruitment letter was sent twice, over an 8-month period comprising the spring and summer semesters. Perhaps the fall and spring semesters, or a full year, would have garnered more responses.

Having more participants might also prove to be overwhelming due to the phenomenological nature of the study. The two interviews in this study populated transcript lengths of twenty to forty pages for each participant. The data culled from each interview was significant, to support identification of the lived experience of microprocesses of embodied cognition, of alignment of stages of the grief process to the process of embodied cognition, of paralinguistic cues as indications of resistance or avoidance of sensory, of emotional experiences

generating a lockdown of embodied cognition, and of the reasons for the resistance and avoidance.

Although a definition of a disorienting dilemma in the context of transformative learning was provided, it might be useful to give some examples of specific types of disorienting dilemmas. The lived experiences of those who responded included a recent car accident (no loss of life), rejection of a parent by their child, being reported to DFCS, surprise divorce papers after 20 years of marriage, child abuse, and the tragic death of an older child after two weeks and seven surgeries, after being hit head on by an impaired driver.

Given the perception of those who responded to this study, it might have seemed more serious examples of disorientation were expected. With examples of lesser extreme examples, perhaps more participants would be willing to participate. Future research might also explore utilization of the concept of a disorienting dilemma as it applies to trauma.

A longitudinal study would provide a more extensive view of the processing of microprocesses of embodied cognition over time. As all six of the participants entered the study in a lockdown of embodied cognition and four were eventually able to unlock embodied cognition as a result of the study, it would be worth following the others for a period of time

Extending these findings by exploring the lived experience of individuals who have successfully experienced transformation as a result of a disorienting dilemma would be interesting. Collecting information on what the process looks like to those who have completed the transformative learning process may reveal new truths and bring additional theoretical perspective to this research.

A final limitation involved my personal experience with trauma and my professional background as a psychotherapist. These assets may have been valuable for establishing rapport,

empathy, and safety with participants in my role as a researcher; however, it is necessary to acknowledge these identities may have also affected the interpretation of the study's findings.

My ontological position and the conceptualization of the fusion of horizons validates that, since I am one being-in-the-world, my interaction with another, regardless of my personal history, is what it is, the essence of being (Vagle, 2018). Therefore, whatever contribution I gave to the information simply creates an evolution of information.

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APPENDIX A

INTERVIEW GUIDE

I. Informal Interview Guide

- A. Hello! Thank you for being willing to participate and being available for this interview. I am here to listen to your disorienting dilemma and am passionate to understand and learn how individuals who have experienced disorientation, return to a state of sensory, emotional, and intellectual balance, make sense of and learn from their experience, and move forward to live healthy and productive lives.
- B. This interview will last about 90 minutes. As this interview involves questions about your disorienting dilemma, I want to inform you (covered in the IRB consent form), that if at any time you feel uncomfortable answering any of the questions, please feel free to pass or ask to take a break or end the interview completely. I will be recording our conversation on a recorder, and I will be taking notes on paper as well to help me to remember additional questions that may come up as you are speaking.
- C. Do you have any questions, so far?

II. Consent

- A. The consent form provides an overview of the study, what the risks and benefits are, and why you are being invited to participate. Please feel free to ask any questions you may have now or at any time during or after any interview. Do you have any questions now? You have been asked to sign the consent form and been given a copy for your records. One thing, specifically, I want to draw your attention to is that there are multiple levels of consent for this study. While you may agree to be audio-recorded for this interview, you may also agree (or not agree) to allow audio of your voice to be shared in results or reports from this study or agree (or not agree) to allow images you create or produce to be shared. If you agree, you may withdraw your agreement at any time.
- B. Are there any questions? [Allow questions and signing of consent]
- C. Collect signed copy.

III. Introductions

Let's start off with an introduction – If you will, think about a pseudonym or fake name you would like to use for this interview. Once you have an idea of a name you would like to use, introduce yourself and share information about:

- A. your age,

- B. where you are from,
- C. your race, ethnicity, and gender identity,
- D. your socioeconomic status,
- E. your level of education, and
- F. any other identifications you would like to include

IV. Interviews

Thank you. I would like to turn now to some specific instructions for each interview that will help me understand how individuals who have experienced disorienting dilemmas are able to negotiate embodied cognition to successfully complete transformative learning. Do you have any questions before we start? OK, let's start. Get comfortable if you can and perhaps take a couple of deep breaths. I may ask some of the following questions as we move through your story.

1. Interview 1 – Tell the story of your disorienting dilemma – keeping in mind your comfort level.
 - a. Please explain the who, what, where, how, and why of your experience.
 - b. Include a historical perspective of yourself and the context (the place, state, country, world, time).
 - c. What can you touch, see, hear, taste, and smell; actions; and observations.
 - d. What was it like ... concretely or without reflection?
 - e. Is there anything you feel uncomfortable discussing, a yes or no is sufficient.

2. Interview 2 – This retelling of your disorienting dilemma will focus on sensory, emotional, and intellectual experiences you feel comfortable discussing.
 - a. where you noticed it,
 - b. what you notice occurred in your body
 - c. what you did or did not do with it, what followed (edge-emotion, flocking, edge-emotion, fight, flight, emotion)
 - d. Can you describe that experience?
 - e. Going back in time, how did it start? What/who triggered it? How?
 - f. You mentioned that change has happened since the disorienting event. Can you tell me more about that?
 - g. How did (incident, other event, treatment, if anything) help you to change?
 - h. How did you become aware of this change?
 - i. What did you think about this change?
 - j. How did you feel about the change?

- k. Who supported you in this change?
- l. Reflect on the meaning of the experience. Thinking back on the concrete details of the history and context of the experience expressed in your first narrative and the details of the experience reviewed in the second narrative, reflect now on the meaning of the experience as you relate to it in the

Past: How was it or what was it like to move past the initial sensory experience?
What did that mean to you, how did that matter to you?

Present: What is it like to live with this experience?
What does that mean to you, how does that matter to you?

Future: What do you imagine it will like in the future?
What will that mean to you, how will that matter to you?
- m. Do you have any questions for me?
- n. How did/do you feel (what emotion do you immediately notice or occurs in your body) when...
- o. Tell me more about...
- p. Can you tell me more about that
- q. Have you come to learn or realize or would like to say anything because of this interview?

V. Conclusion

That concludes our interview. Thank you so much sharing your thoughts, feelings, and experiences. Do you have any questions? Please remember, you may contact me if you have any questions later! Thank you again.