Title
Preparing to Meet the World: Increasing Possibilities for Action through Embodiment

Permalink
https://escholarship.org/uc/item/8262x3zk

Author
Bessey, Kira

Publication Date
2018

Peer reviewed|Thesis/dissertation
UNIVERSITY OF CALIFORNIA,
IRVINE

Preparing to Meet the World: Increasing Possibilities for Action through Embodiment

THESIS

submitted in partial satisfaction of the requirements
for the degree of

MASTER OF FINE ARTS

in Dance

by

Kira Mikayla Bessey

Thesis Committee:
Professor Lisa Naugle, PhD, Chair
Professor John Crawford
Professor Alan Terricciano

2018
DEDICATION

To

Matthew. I am more because of you.

To the future and to lifelong learning.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iv</td>
</tr>
<tr>
<td>ABSTRACT OF THE THESIS</td>
<td>v</td>
</tr>
<tr>
<td>CHAPTER 1: INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>CHAPTER 2: REVIEW OF LITERATURE</td>
<td>7</td>
</tr>
<tr>
<td>CHAPTER 3: METHODS</td>
<td>20</td>
</tr>
<tr>
<td>Phase 1: Exploring</td>
<td>21</td>
</tr>
<tr>
<td>Phase 2: Discovering</td>
<td>24</td>
</tr>
<tr>
<td>Phase 3: Refining</td>
<td>25</td>
</tr>
<tr>
<td>Phase 4: Sketching</td>
<td>26</td>
</tr>
<tr>
<td>Phase 5: Creating</td>
<td>27</td>
</tr>
<tr>
<td>CHAPTER 4: FINDINGS AND DISCUSSION</td>
<td>31</td>
</tr>
<tr>
<td>Autonomy</td>
<td>31</td>
</tr>
<tr>
<td>Embodiment</td>
<td>33</td>
</tr>
<tr>
<td>Sense-making</td>
<td>36</td>
</tr>
<tr>
<td>Emergence</td>
<td>38</td>
</tr>
<tr>
<td>Experience</td>
<td>40</td>
</tr>
<tr>
<td>CHAPTER 5: CONCLUSION</td>
<td>43</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>46</td>
</tr>
<tr>
<td>APPENDIX A: MOVEMENT PROMPTS</td>
<td>51</td>
</tr>
<tr>
<td>APPENDIX B: SKETCHES</td>
<td>57</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

I would like to thank my committee chair Lisa Naugle. I am constantly learning from you and in awe of your intuition and genuine teaching heart. Thank you to my committee members John Crawford and Alan Terricciano for your support in this project, for your ideas and guidance.

Thank you to my extraordinarily open-hearted dancers. Thank you for embracing the process and sharing your experiences with me. This project exists because of you.

Thank you to my family and friends for your constant support.

Thank you to all of my teachers for helping to shape my artistic voice.

Thank you to all of the artists that contributed to the concert for this thesis, for helping to make me so proud of the show we created.

Thank you to my cohort for all of the support. I’m so glad we were in this journey together.

Thank you to the UCI dance department for the opportunity to research and create work.


To be em-bodied is to be empowered to act.

—Glenna Batson
ABSTRACT OF THE THESIS

Preparing to Meet the World: Increasing Possibilities for Action through Embodiment

By

Kira Mikayla Bessey

Master of Fine Arts in Dance

University of California, Irvine, 2018

Professor Lisa Naugle, PhD, Chair

This research explores ways in which dancers can become more aware of their environment in order to make more intentional choices as they interact with the world. I questioned results of disconnection between mind, body, and environment, and whether the relationship between our inner selves and outer world is relevant in the process of perception. I explored the fields of embodied cognition and somatics to create a movement practice that would expand one’s awareness. I worked with seven dance majors at the University of California, Irvine to implement five phases of my research. The first four phases consisted of prompts that led dancers in embodiment exercises, followed by reflection through written journal entries and drawings. The fifth phase of the method culminated in a dance concert to showcase the work done in the first four phases and to explore choice-making in the context of performance. Throughout the practice period, dancers expressed feelings of overall increased embodiment and connection, and discovered a greater ability to utilize agency as they became aware of more possibilities for interacting with the environment. Further time will be needed to continue developing and refining the practice framework.
CHAPTER 1: INTRODUCTION

Plant a garden. What do you see?
Flowers or vegetables,
trees.
A shape appears. A row, a line?
Where do you place the seeds?

-Kira Bessey

The Maring people in Papua New Guinea don’t plant their gardens in rows. This is almost unimaginable to someone like myself who—having grown up in an American farming town—became conditioned to imagine clean, straight rows of crops in big, square fields. Any other orientation seems wild and unkempt, neglected and void of human influence. As observed by Allison Jablonko and Elizabeth Kagan, however, the Maring women who plant these gardens make conscious choices about where to place seeds based on perceptions of various aspects within the environment. In their article, “An Experiment in Looking,” they write, “… they scatter seeds where they ‘feel’ the seeds will take root. This ‘feeling’ stems from their sensory approach to the environment in which a complex set of ecological variables—soil types, companion plants, [and] family food preferences … —guides their sowing, rather than a geometrical, visual model” (Jablonko and Kagan 153). This custom of responding to and connecting with the environment before initiating an action has allowed the Maring people to develop a meaningful relationship with their surroundings, connecting wholly with the environment and nurturing the people in their community.

I initiated this research in hopes of discovering ways for people, including dancers, to cultivate an ability to connect to their environment as the Maring women do when they plant their gardens. The research questions I explored in hopes of mirroring this connection were: How
might actively integrating with the environment alter a person’s actions and choices? What, if any, are residual societal issues that arise from disembodiment and disconnection from the environment? What is the relationship between “inner” thoughts, feelings, and sensations, and “outer” perceptions and associations? Can working in somatic practice that includes exploration of sensory awareness, conceptual metaphor, enaction theory, and embodied cognition lead to an increase in possibilities for thinking, acting, moving, and dancing within our bodies and the environment? In the case of this research I am using the term environment to refer to all surroundings that a person operates within, including the internal landscape of the self within which a person dwells. The definition is not limited to connecting only with the natural environment, because everything around us can provide sensory input, including other people.

Dance and movement research provide a laboratory for asking these questions and experimenting with possible answers. In conducting research about the body, it seems counterintuitive to fail to test ideas through the body’s inherent knowledge and capacity for movement. This research utilizes dance as a tool by which participants can become more aware of their environment, more embodied, and more in tune with the processes of perception. The role of dance in this work is not necessarily to enhance any specific dance, piece of choreography, or performance. Rather, it is implemented into the movement practice that includes dance improvisation in order to enhance understanding about the body. Beyond the practice, dance played a role in further testing as the practice was taken from the dance studio to the performance stage.

In looking at what fields of study might be useful in this research process, my primary focus was on embodied cognition—a recently developed branch of cognitive science. According
to movement therapists Heidrun Panhofer and Helen Payne, embodied cognition “[believes] that the nature of the human mind is largely determined by the form of the human body” (219). This described relationship between body and mind leads to a state of connection that is referred to as embodiment. Movement artist Glenna Batson explains that embodiment is not a result of any individual function of either brain or body, but that it develops “from their confluence in creating experience” (76). I have observed that many people are inattentive of this relationship within themselves and therefore lack familiarity with embodied experiences.

Becoming embodied requires actively expanding one’s awareness of the processes between mind, body, and environment, so I recruited the field of somatics to build a framework for practicing an increase of awareness necessary for an embodiment practice. Somatic, in the most basic terms, means “of or relating to the body” (Strozzi 51). Somatics as an entity is described as “the field which studies the soma. … When a human being is observed from the outside … the phenomenon of a human body is perceived. But, when this same human being is observed from the first-person viewpoint … a categorically different phenomenon is perceived: the human soma” (Hanna, “What is Somatics” 31). Participating in a somatic practice allows people to focus their perspective inwardly through various means of bodywork and movement exploration.

Somatic practitioners have experimented in numerous ways within these fields of study, each having slightly different approaches to answering the need for healthy representations of the body. Thomas Hanna, Bonnie Bainbridge Cohen, Eric Franklin, Simone Forti, and Anna Halprin, among others, have all contributed to the ongoing exploration of the body through an examination of embodiment. These practices have varying approaches that center a participant’s
attention on specific processes and goals. For example, the Franklin Method—created by Eric Franklin—has the primary purpose of “[teaching] dynamic alignment and how to move your body with maximum efficiency to keep your body youthful and energized” through “showing you how to use your brain to improve your body’s function” (“About The Franklin Method”). The specific purpose for creating this new practice, differing from other established practices, was to answer questions about how one’s relationship to the environment is understood in terms of cognition, and how this understanding might help them make choices and act from an embodied place.

Many of these existing somatic practices are generally focused on what is happening within an individual. I felt the need for this practice to attempt to find not only the balance between inner and outer worlds, but to focus on how these two seemingly separate aspects of existence are completely interdependent. This approach is not to take away from the importance of each separately, but to help people understand that one cannot focus on the connection between mind and body without understanding the influence that the environment has on our state of being. Betty Block, dancer and movement specialist, and Judith Lee Kissell, philosopher, explain the need for embodiment practice: “If we are asked where our true self lies … we most probably respond: in our minds—failing to recognize that to put the question in this way is already to make a false assumption. We need therefore, not only to get a grip on our essential unity but to immerse ourselves in concrete instances of what embodiment means” (6). It is my hope that this practice will provide the “concrete instances” needed to comprehend the integrated characteristics of our inherently being in the world.
Thomas Hanna presents a case study about a pharmacist who came to him with pain that had been unsuccessfully treated by doctors. Hanna observed that as the pharmacist had developed repetitive movement habits at work over several years, he had completely cut out movement of his torso. Participating in Hanna’s somatic treatment not only led to greater physical mobility, but allowed the man to be “aspirational and adventurous. More was possible for him, and he could look around more and aspire to more” (Hanna, *The Body of Life* 52-60). Explaining this phenomenon Hanna wrote:

As our search for a vocation settles into a fixed “job,” as our search for a mate settles into marriage, as our many expectations settle into a finite number of fulfillments, as our aspirations settle into steady certitudes, and as our broad range of potential movements settles into a narrow band of habitual movements, we will inevitably find ourselves looking in fewer directions and moving in fewer directions. As the possibilities of our life are sorted through, discarded, and finally edited down to a daily routine of actualities, our living functions become limited and specialized (*The Body of Life* 58-59).

When we are embodied we are able to be more intentional and less habitual in our choices and actions, utilizing greater agency from a position of awareness of true desires and aspirations. Dance artist Andrea Olsen also addresses the role our bodies play in the choices we make. She writes, “We all have a body: it’s the medium through which we know the world and ourselves. The degree to which you are embodied—aware and in balance—underlies your capacity for effective choice making” (Olsen 227). Over time, this research began to evolve into a focus on discovering ways to increase possibilities for acting in the environment through embodied choice-making.
As my research developed, I looked at residual societal issues that may stem from disembodiment or disconnection from the environment, as well as from the trauma of the body/mind split—such as the undervaluing of the body and limited potential for choice-making. I questioned how I might teach people to become more embodied as a way of starting to reconcile some of these problems. I understood that having a widespread impact would not be possible, and I came to realize that the purpose of this work should not be changing the whole of Western society, but about increasing connection and understanding of the body for one individual at a time. Thomas Hanna stated, “By understanding ourselves and the fuller aspects of our functioning, we are empowered to help ourselves. We may be able to do nothing about our culture and, perhaps, little about our job, but we can do much about ourselves and the way we process our experience” (*The Body of Life* 152). I resolved that the purpose of this research is to give each participant a space and practice where they can exercise intentional choice-making in order to feel more secure within the world.
REVIEW OF LITERATURE

“For every person that you know, there is a body. You may never have given any thought to this simple relationship but there it is: one person, one body; one mind, one body—a first principle … Now, this is intriguing is it not? Why should we not commonly find two or three persons in one body? What an economy of biological tissue. Or why should not persons of great intellectual capacity and imagination inhabit two or three bodies? What fun, what world of possibilities. Why should there not be bodiless persons in our midst, you know, ghosts, spirits, weightless and colorless creatures? Think of the space savings. But the simple fact is that such creatures do not exist now and nothing indicates that they ever did … A mind is so closely shaped by the body and destined to serve it that only one mind could possibly arise in it. No body, never mind. For any body, never more than one mind.” — Antonio Damasio, The Feeling of What Happens: Body and Emotion in the Making of Consciousness

This thesis work is rooted in the field of embodied cognition, and includes explorations in mind-body connection, conceptual metaphor, the theory of enaction, sensory awareness, and dance/movement improvisation. Much of the research done in these areas has been by experts in the field of philosophy, most specifically in the vein of phenomenology, and by those researching embodied cognitive science. Some dance and somatic practitioners also work within the field of phenomenology as they research embodiment and sensory awareness. The relationship between dance, somatics, embodied cognition, and phenomenology is still being uncovered as research and practice continue to take place in these fields.

This thesis has grown as a response to a foundation of work that addresses an extensive exploration into the question of mind-body separation. This work references the 17th century philosopher René Descartes—whose ideas led to a widespread belief that the body and mind are separate entities that operate independently. Descartes initiated the development of his separative philosophy with the phrase Cogito, ergo sum, “I think, therefore I am” (The Editors of Encyclopaedia Britannica). As this philosophy, often termed “Cartesian dualism” or “Cartesian
“split,” has developed through the centuries, it has led many philosophers and body work practitioners to credit it with a general undervaluing in Western society of the role of the body in perception and cognition (Albright; Bardet and Florencio; Lakoff and Johnson; Love; McGinn). Lakoff and Johnson explain,

...elements of Cartesian philosophy have had a profound effect on the character of much contemporary philosophical thinking. They have affected not only phenomenology, but also a good deal of Anglo-American philosophy of mind. But their influence is not limited merely to philosophy. They have also made their way into other academic disciplines, into our educational system, and into popular culture as well, as in the pervasiveness of the computer metaphor for the mind (Philosophy in the Flesh 400-401).

However, in recent times philosophers have questioned Descartes’ view about the disconnection between body and mind; like those working in embodied cognition, they favor a more holistic process of perceiving and thinking that involves an essential connection between body and mind.

Philosophers and somatic practitioners have been working to find ways to heal and reconnect the separation between body and mind by changing the way we view and speak about cognition. In their article “With Descartes, against Dualism,” Marie Bardet and Florencio Noceti warn against fueling the disconnection by speaking with well-meaning vocabulary, citing that referring to the body and the mind/head as separate entities still subtly acknowledges a dualistic view (196). They instead suggest investigating a more dynamic view of the relationship between body and mind, writing, “As substances, they only could be either the same one thing, either two different, and for then, two opposed things. [A] dynamic perspective opens up possible links with movement experience, and the somatics approach” (202). Cecilia de Lima also addresses
how to refer to mind and body in her article, “Trans-Meaning - Dance as an Embodied Technology of Perception,” explaining that referring to a fluid, porous relationship between mind and body relates to a greater ability to connect to the environment (Lima 22). When mind and body are viewed as one, or at least parts of a whole, it creates a more connected image of self in the world.

Many of the philosophers currently working in the field of embodied cognition have been inspired by the early 20th century philosopher Maurice Merleau-Ponty, author of Phenomenology in Perception. In this book, Merleau-Ponty discusses perception as it relates to the body, particularly the fundamental role it plays in how one connects to the surrounding environment. He states that “Every external perception is immediately synonymous with a certain perception of my body, just as every perception of my body is made explicit in the language of external perception” (Merleau-Ponty 206). He believed that there is a direct correlation between our internal and external experiences. These ideas are fundamental for continued research on understanding the connection between mind and body to environment. More current philosophers, following in Merleau-Ponty’s line of thinking, have also done research relating to the necessity of the body in the act of perception, or what has been termed embodied cognition (Clark; Damasio; Hanna; Johnson; Lakoff and Johnson).

Thomas Hanna grew his work as a philosopher into a somatic practice known as Hanna Somatic Education, which deals with experiencing and perceiving through the soma. In his book, The Body of Life: Creating New Pathways for Sensory Awareness and Fluid Movement, Hanna writes, “Life does not occur except in embodied form, and when we see and experience life, it is always by seeing and experiencing a living body” (vii-viii). He also speaks about the success of
using somatics as a way to change human action (Hanna, *The Body of Life* xii). Hanna assessed society and then created a somatic practice that he felt could help alter the ways in which humans interact with their environment, including other persons. He goes beyond theorizing about cognition to working toward a solution for connecting the body to the process of cognition. Many of Hanna’s ideas have been integrated into movement and dance education, but his work can be defined as a passive practice in which he maneuvers an individual client’s body, rather than the client actively making choices in their movement.

In his book, *Being There*, Andy Clark focuses on issues of artificial intelligence and discusses why the body is essential to the process of computing in the brain. He speaks of the mind as a “leaky organ,” one that works beyond the confines of what we think of as “brain” to integrate with the body and the world (Clark 53). He also suggests that the brain develops and works in order to control the body, so to separate mind from the workings of the body in the world is to negate the function of the brain (Clark 68). When problem solving, Clark suggests that reasoning and acting “cut back and forth across the traditional boundaries of mind, body, and environment (68). Questioning the boundaries of the mind opens a space for building strategies to connect mind, body, and environment.

Mark Johnson also theorizes about the nature of the mind, explaining that thoughts are not “mental entities or abstract structures,” but rather “patterns of experiential interaction,” (*The Meaning of the Body* 117). Johnson writes:

The only sense in which they are “inner” is that my thoughts are mine (and not yours), but they are not mental objects locked up in the theater of the mind, trying desperately to make contact with the outside world. As we will see, thoughts are just modes of
interaction and action. They are in and of the world (rather than just being about the world) because they are processes of experience (The Meaning of the Body 117).

If we begin to change our view of thoughts as belonging only to the brain, and instead see them as fluid products of the relationship between body, mind, and world, we can deepen our understanding of how cognition is an embodied process and build greater connections between self and world.

Neuroscientist and philosopher Antonio Damasio has done significant research in the field of embodied cognition. In The Feeling of What Happens: Body and Emotion in the Making of Consciousness, Damasio writes about “experiential perspective,” an idea that posits that our perspective, or perception, comes from experiences within our bodies. For example, the notion of self is “close to my heart” but the idea of a homunculus [humanoid creature] is “far from my liking” (Damasio 145). These directional terms used to describe a feeling or emotion indicate that perception and expression of feelings are based on knowledge we gain from experiencing the world through a physical body. So, as our body and mind are connected to the environment, so are our thoughts and feelings, because they are defined through our bodily experiences. This concept is related to conceptual metaphor, which claims that we understand abstract concepts in language through the lens of bodily experiences.

George Lakoff and Mark Johnson have written extensively on conceptual metaphor and its role in language. In Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought and Metaphors We Live By, they explain the depth of conceptual metaphor and how our bodies play a role in understanding metaphor by saying,
Advocates of the disembodied mind will, of course, say that conceptual structure must have a neural realization in the brain, which just happens to reside in a body. But they deny that anything about the body is essential for characterizing what concepts are. The claim that the mind is embodied is, therefore, far more than the simple-minded claim that the body is needed if we are to think … Our claim is, rather, that the very properties of concepts are created as a result of the way the brain and body are structured and the way they function in interpersonal relations and in the physical world (Lakoff and Johnson, Philosophy in the Flesh 37).

An example of conceptual metaphor is when babies experience crawling from one side of the room to the other, they can begin to conceive of “life as a journey with a beginning, middle and end—with possible detours, rough patches, etc. … In this view, it is not that we use metaphor to suggest meaning; metaphor is how we construct meaning” (Cook 87). Conceptual metaphor introduces language as evidence for the case of embodied cognition by recognizing that even the words we say require some form of bodily knowledge.

Cognitive science professionals and writers have also contributed to the discussion of the role of the body in perception. Affective Performance & Cognitive Science: Body, Brain, and Being, a collection of essays edited by Nicola Shaughnessy, explains that cognitive science in current time has become more focused on embodiment, and that “information processing models” are regarded as out-of-date representations of human cognition—with focus shifting to the way the body interacts with the world and how those interactions “shape the mind” (Shaughnessy 4). Additionally, Shaughnessy explains that cognitive science is now interested in the process that creates pathways for consciousness through interaction with the environment (5).
In this new view of consciousness, movement becomes an extremely useful tool in exploring new ideas and relationships.

Alva Noë’s book, *Action in Perception*, discusses Gibson’s theory of affordances, or the idea that when we perceive something we view a “sensorimotor contingency” that it affords us in our environment, or “we perceive in an idiom of possibilities for movement” (105). Noë argues that the function of perception is to discover ways that we can move and interact with our environment. Noë also describes the enactive approach to perception, which posits that cognition occurs only when we move and interact within our environment, not through passive sensory stimulation (1). This research follows in the same line of thinking, using intentional movement as a way to increase awareness and perception.

Glenna Batson also mentions the theory of enaction in her book *Body and Mind in Motion: Dance and Neuroscience in Conversation*. Similar to Noë, she explains the importance of the enactive theory in creating change in how cognition has typically been understood. She presents the five established phenomena of enaction—autonomy, embodiment, sense-making, emergence and experience—which, combined, contribute to the concept of “cognition-as-action” (Batson 90). Though these concepts are introduced, Batson does not expound on the implications that these phenomena have on movement training or practice.

Philosopher Evan Thompson provides a basic definition for the enactive approach in his article “Sensorimotor subjectivity and the enactive approach to experience.” He writes, “According to the enactive approach, the human mind is embodied in our entire organism and embedded in the world, and hence is not reducible to structures inside the head” (Thompson 408). Although no explicit definition is recorded for each of the five aspects of enaction, several
philosophers and somatic practitioners have given brief explanation for ways in which they understand, define, and use these terms (Di Paolo et al.; Hanna; Strozzi; Thompson). This research expands on the definitions of the five phenomenon of enactive theory of cognition by applying them to an experiential movement practice rather than a written, scientific expression of cognition.

Autonomy, as it will be used in this research, refers to the ability of a cognitive system to “regulate the conditions of their exchange with the environment” (Di Paolo et al. 38). Thomas Hanna relates autonomy to the ability of the soma to be free to make choices, and defines it as the state of having a variety of possible responses to act within the environment (“What is Somatics” 34). Ezequiel A. Di Paolo et al. explain the autonomous nature of cognitive systems, explaining that they are able to engage with the environment as self-determining agents (38). Because we are able to exercise agency in our environment, we can practice autonomy in enacting our perception of the world.

Embodiment, as it relates to enaction theory, is used in essentially the same way as it is used in embodied cognition. This explanation, for example, that “embodiment means that mind is inherent in the precarious, active, normative, and worldful process of animation, that the body is not a puppet controlled by the brain but a whole animate system with many autonomous layers of self-constitution, self-coordination, and self-organization,” is similar to other definitions given formerly in this paper (Di Paolo et al. 42). It seems that embodiment is an established concept with an agreed upon definition, at least in terms of phenomenology.

We constantly and consistently make meaning of the things that we actively perceive around us. Di Paolo et al. describe sense-making as “the creation and appreciation of meaning,”
which is an inevitable result of our “inherently significant” exchanges with the environment (39). Creating meaning in the world requires a level of action that enables interactions with the environment—as in touching an unidentified object to get a clearer idea of its properties and identity.

In “Horizons for the Enactive Mind: Values, Social Interaction, and Play,” Di Paolo et al. acknowledge that there is a need for more research to clarify the definition and role of emergence in enaction theory (42). They do, however, offer this explanation: “Emergence is used to describe the formation of a novel property or process out of the interaction of different existing processes or events” (Di Paolo et al. 40). This seems similar to sense-making, but involves assimilation of separate events to create greater depth in meaning. I will be utilizing this definition to explore emergence further through the enactive characteristics of this practice.

Explained as having a direct relationship with the body, our experience changes as our body moves through and interacts in the environment. Di Paolo et al. write, “If experience and the body-in-interaction were to relate to each other as two mutually external systems, we would expect either an unchangeable or a fleeting relation between our bodies and our experience. Instead we find a lawful relation of bodily and experience transformations …” (44). It is not possible to enact a change in the body without changing our experience; for example, turning to look in a new direction creates an overall bigger picture of the environment and changes one’s perspective to evolve the experience of being in that particular environment.

Dance artist Andrea Olsen associates dance with enaction because it is a way to expand our attention to experience a wider perception of the world. She writes, “As we open our senses to the world outside and to the world inside, we come to recognize them as one. From this
perspective, without changing anything else, we are dancing in a new place. And there is no
prescribed response; new forms, new visions, will emerge” (Olsen xix). If we can generate new
possibilities for movement through enactive awareness, we are able to change our perception of
our world without the need to change our environment. Enaction empowers us to see and create
change in ways that would otherwise be beyond our recognition.

Another aspect that underlies the practical application of this research is sensory
awareness. As the gateway between the world and self, sensory modalities are an especially
important element in the process of having a fully embodied cognitive experience. In her article
“Contact Improvisation as an Art of Relating: The Importance of Touch for Building Positive
Interaction,” dance artist Anna Jussilainen focuses on touch as the most important sensory mode
for connecting to our environment. She refers to the sensory functions of the skin, saying they
“contribute crucial information for responding appropriately to our environment, and most
importantly they support the overall physical and mental health of the person in not so obvious
yet powerful ways” (Jussilainen 114). Martin Welton, a drama professor, questions the focus on
touch and ponders the possibility of a shift in what we think of as sensory modalities. In
“Footage: Surface Feelings,” Welton says, “‘What would it mean,’ asks the philosopher Daniel
Heller-Roazen ‘for touch to be the root of thinking and for thinking in turn, to be in its most
elevated form a kind of touch?’ Furthermore, what would it mean for an organ of touch, other
than the hand, to be included in this equation?” (162). Touch is a significant resource in bridging
self and environment, especially in dance. However, this research is interested in creating diverse
experiences of perception by engaging with the environment through various established sensory
modalities as well as modes of sensory perception that have yet to be explored.
Somatic practitioner Ariana Strozzi also writes about sensory awareness in her article titled “Somastics and Spirit.” She says, “Awareness is the border of an expanding process. As a border, it is the sensitive membrane between the expanding process and the not-yet-entered space into which it shall expand. Thus it is both soma and world: an interstice” (53). According to Thomas Hanna, awareness is incorporated into a process of learning that can expand our consciousness. In his article, “What is Somatics,” he writes, “It is only through the exclusionary function of awareness that the involuntary is made voluntary, the unknown is made known, and the never-done is made doable. Awareness serves as a probe, recruiting new material for the repertoire of voluntary consciousness” (Hanna, “What is Somatics” 33). Fostering greater awareness of our surroundings allows us to constantly expand our view of the world.

Some people working in the fields of phenomenology and embodied cognition have related these ideas directly to dance. Dancer Cecília de Lima explains that perception is not just about the final result of some process, but that it is an “active” process where every action influences the following perception in a cycle that places a significance on movement; dance can, therefore, “offer a particular embodied insight into the moving nature intrinsic to perception” (20). Dance is also able to capture the ideas of what being a human “embodied” within ourselves and “embedded” in the world involves—including culture, language, and art and the essential meaning of our physical existence (Block and Kissell 8). Edward C. Warburton describes why dance is the “ideal medium for investigating embodiment” in his article “Of Meanings and Movement: Re-Languaging Embodiment in Dance Phenomenology and Cognition.” He writes: “The quintessential experience of dancing brings with it a sense of beingness in the here-and-now—a sensation through which one can perceive connectedness in
movement, can locate the body in three-dimensional space, can feel togetherness in time, and can know a oneness with a larger entity that humans often identify as transcendent religious experience” (Warburton 68). We can use dance as a tool for discovering deeper, more profound experiences of consciousness.

Movement artist Bonnie Bainbridge Cohen developed a somatic practice titled Body-Mind Centering (BMC), which in part deals with perception and relationship between body and environment. The practice is related to this research by ties to movement exploration, but there is at least one slight difference that raises a necessity for differentiation. BMC seems to segregate the body and mind into two separate entities that have separate functions and experiences of reality. This is exhibited in Bainbridge Cohen’s description of the practice. She explains that the mind is the “explorer” that is examining the body as a “territory,” and that the outcome of exploring will lead us to an “understanding of how the mind is expressed through the body in movement” (Bainbridge Cohen 1). Though this work is helpful in changing overall mindset of how the mind and body relate to each other, the language used connotes a gap between body and mind, creating a tendency to imagine them as isolated entities.

Ultimately, the practice is about employing agency to make new choices that are presented through embodying and enacting greater awareness. Agency is linked to a body relating to the environment because it “requires a body acting in time and space and is meaningless without it” (Damasio 145). Glenna Batson expresses that agency is the target for embodiment practice, not embodiment. She writes, “[The] sense of body ownership (one’s own body parts) is a key act of embodiment. Ownership is not enough, however; the body expresses agency, the capacity and capability to do” (Batson 205). As we journey through the embodied
cognitive system—from emotions, to feelings, to thoughts, to behaviors—we are ultimately building a “repertory of responses” that will allow us to exercise the intrinsic capacity of humanness that is agency (Blair 138).

Although there is a wide range of resources within the fields of embodied cognition and somatic training, especially relating to awareness of body in environment, Martha Eddy believes that the field is lacking studies that illuminate “how and to what degree these sensory inroads lead to a richer palette of both perception and motor responses” (210). This thesis hopes to begin to fill these gaps by exploring ways to maximize the possibility of responses for interacting with the environment.
METHOD

“... my oft repeated mantra has been this: in order to have human meaning, you need a human brain, operating in a living human body, continually interacting with a human environment that is at once physical, social, and cultural. Take away one of these three dimensions, and you lose the possibility of meaning: no brain, no meaning; no body, no meaning; no environment, no meaning.” — Mark Johnson, *The Meaning of the Body: Aesthetics of Human Understanding*

The method I have used for this research consists of five phases—Exploring, Discovering, Refining, Sketching, and Creating. I used these phases to develop a framework for a somatic practice with various means of movement exploration and sensory awareness exercises, and a dance concert that showcased the work of the dancers over the period of practice. Each phase built on the work of the previous phases as we dove deeper into the research and the practice. Exploring began with a general introduction to somatic work, which led to Discovering awareness of embodiment, then Refining responses to make intentional choices, to Sketching for deeper reflection, and finally Creating a form to share the work.

I worked with seven female dance majors at the University of California, Irvine (UCI)—six undergraduate and one graduate student—to develop and experiment with the framework for the practice. The dancers varied in their experience with movement improvisation and in their exposure to somatic practice. I asked two dancers to participate because I knew they had previous experience with these things and would be able to create deeper experiences from the first meeting. The other five dancers had almost no experience with somatic work or movement improvisation, but I felt that they would be open to the process of learning and practicing, as well as participating in meaningful discussion. I chose all of the dancers based on
what I perceived as an ability to be open-minded when thinking about and working with the body through movement, and on the feeling that I could trust them to be invested in the work.

I met with the dancers once a week for five non-consecutive weeks between September and November 2017. We met for two hours each time, during which concepts or ideas were introduced for the dancers to contemplate. With these concepts and ideas in mind, we explored between two and four movement prompts, and participated in personal reflection and group discussion. I delivered the prompts vocally, sometimes giving the full prompt before beginning a movement exploration, and sometimes giving the prompt intermittently throughout the exploration. During the sessions I transitioned between the roles of facilitator and participant, depending on whether I felt it would be more beneficial to observe the participants or to experience a certain prompt for myself.

The first four phases of the method unfolded during the initial five meetings. In January 2018 I began the fifth phase—a rehearsal process to create and prepare for the concert. These rehearsals took place twice a week for two hours each session, and ran for ten consecutive weeks between January 2018 and March 2018. During these rehearsals we continued to develop the practice but began to focus on constructing elements that would be used in the culminating performance of the research.

**Phase 1: Exploring - what are you practicing?**

The *Exploring* phase began in the first weekly meeting with my dancers. We experimented with two movement prompts that were meant to give an introduction to somatic work and begin to guide the dancers into becoming aware of the connection between their mind and body. I wanted the dancers to have a strong foundation for the practice, so I began the
session with a movement prompt that would establish a starting point for each dancer in terms of
their personal level of connection with their body. Before introducing my research topic, I asked
the dancers to contemplate the question, “what are you practicing?” (Appendix A.1). I gave
them time to reflect through movement, and then directed them to write any surfacing thoughts
and feelings in a journal. I assured them that this was a space for authenticity, for opening up, for
finding meaning, and for connecting. I told them, “if you experience it, it is right; if you write it,
it is right; if you say it, it is validated by the group.” I wanted to let each dancer know that they
were their own agent in this practice; they did not need to have any expectations for themselves
and I did not have any expectations for them. We repeated this format of movement experience
followed by reflection for one other prompt titled Sensations and what else? (Appendix A.2) that
focused on getting in touch with a variety of sensory modalities as they deepened awareness of
their bodies.

I allowed dancers a set amount of time to experiment with each prompt—usually fifteen
to twenty minutes—and gave them the option to either improvise movement or write in a
personal journal at any point during this time. This was in addition to specific journaling time
given after each prompt for dancers to write about their experience. The amount of set journaling
time varied based on my observation of the dancers coming to a close with their writing, but was
generally between five and ten minutes long. The purpose of journaling was to help them reflect
and be able to remember and better verbalize their experiences. According to dance scholar M.
Candace Feck in her article “Writing Down the Senses: Honing Sensory Perception through
Writing about Dance,” writing “compels the writer to an act of ‘reawakening,’ a plunging back
into the reservoir of sensory information to retrieve stored sensations and memories of the
performance … [T]he fermenting stages of reflection, deliberation, and production which comprise the writing experience … deepen the sensory channels for further rounds of engagement” (168). I intended for the reflection through writing to engage greater depth in the dancers’ experiences.

I encouraged the dancers to free write in whatever way seemed fitting for their experience. Options included writing in the past tense as if looking back on the experience, or in the present tense as if reliving the experience through their words. I read dancers an example of present tense reflecting that comes from my own journal entry after a movement experience in summer 2017:

As I lie. Here in my aching. A song of worry as I begin my day, like all other days. It’s in my head. But I feel in my pelvis that I can overcome. I hold a bowl to catch the negative thoughts, the negative energy. And I let those drip, one by one, allowing the to fall from my aching mind, through my face, and into the bowl. Anxiety. Worry. Jealousy. Overthinking. Dripping. Drops of water that gather to be tossed away. Coming from the body, transforming into aching energy, and then to droplets. I feel each one leaving— making way for peace and calm in a droplet sized piece of my brain that is now free. Stop worrying about everyone else. Stop doubting. Start living. Start being. “What if now is?” Then blood starts dripping. The ache has gone from water to blood. This is something thicker. Something too deep. I can’t quite make it out. Stop yelling. It’s simple. The blood starts gushing. I don’t know what it is. I don’t know how to stop it. I don’t let it drain completely. I force it to stay. Hidden from knowing, from releasing. The ache resides deeply. It lingers where I stunted the flow. Is it doubt? Is the unknown actually just itself? A cycle of not knowing that makes me bleed from my brain? It’s simple. I’m holding complexity as a crutch, as if the idea of just being leaves me without a leg. But I have two legs. I have two arms. I stand on firm ground. I am enough because I have been given more than enough. I rid my hands, I rid my mind of bad energy. Of negative thinking. I am in comfort. I am enough. And if I’m not? I can’t control everything.
Dancers could also write a response to questions I would ask, about imagery that came up during their movement, an idea the prompt led them to think about, or in any other way they might have formulated their thoughts. It was open-ended to give dancers the opportunity to choose a meaningful reflection for them in the moment.

Once the written reflection time came to an end, I led a sharing session where each dancer was free to share all or any part of their experience with that prompt. We discussed each dancer’s experience and compared any similar lines of thought that surfaced for the dancers. The amount of time for these sharing sessions fluctuated between about ten and thirty minutes depending on the dancers’ level of engagement with the prompt and interest in sharing. I encouraged sharing, but it was not required as some experiences were quite personal and sometimes dancers were not ready to express their experiences to the group. To conclude the session I asked dancers to choose a piece of their journal entry—any length ranging from one word to as much as they would like to share—to read to the group. I let the dancers keep their journals private, so I took my own personal notes on observations throughout the session and especially the thoughts that arose during the discussion.

Phase 2: Discovering - embodied and embedded

Phase two of the research emerged naturally during the second meeting with my dancers and continued through the third meeting. At this point of the research, the framework for the developing practice was identical to phase one, with an introduction of new concepts, delivery of a prompt, exploration time, reflection time, and finally discussion. The Discovery phase was meant to find more clarity within the process. I developed the prompts from a focus on general somatic concepts to ones more specific to embodiment within self and embeddedness in the
world. I posed more specific prompts to guide the dancers into a sense of embodiment, then transitioned to prompts that challenged the dancers to become aware of the environment through embodied perceiving.

We started with a prompt titled *Cellular makeup* (Appendix A.3) which was followed by *Animate aliveness* (Appendix A.4). These prompts both concentrated on becoming embodied. The phase then turned attention to being embedded in the environment. *Scatter life energy* (Appendix A.5) encouraged the dancers to acquaint themselves and connect with the immediate environment of the studio in which we were practicing. *Matching forms* (Appendix A.6) guided the dancers to connect their movement to images from the environment that stemmed from all past experiences of being in the world. The final prompt in this phase was *Empathy* (Appendix A.7), which encompassed other dancers into the definition of environment through direct observation of one another as aspects of the immediate environment.

**Phase 3: Refining - more choice, less reaction**

The transition into the *Refining* phase of the research happened organically during the fourth meeting and continued to develop throughout phase four (*Sketching*) and five (*Creating*). I maintained the same basic framework in the *Refining* phase that was used in phase one (*Exploring*) and two (*Discovering*). The focal point for phase three was to begin practicing choice-making from an embodied state. I introduced the dancers to the idea that practicing embodied awareness can provide us the ability to have more voluntary choice and less involuntary reaction to our sensations. Several prompts were used to experiment with choice-making, but the most salient ones that were used in this phase included *Twice, looking in* (Appendix A.9), *Embodying site* (Appendix A.12), and *Habits* (Appendix A.13). Each of these
prompts were still about becoming embodied, but they also asked the dancers to focus on the choices they were making as they moved, and encouraged shaking habits in favor of making new choices.

**Phase 4: Sketching - “everything which I have not written”**

One of the main ways that the dancers reflected on their experiences in the first three phases was by journaling during and after each movement experience. I included this *Sketching* phase because I wanted to deepen the reflection aspect of the research method by introducing a visual way for the dancers to express their experiences. We continued with our regular structure for introducing prompts, but after a movement prompt was given and explored in this phase (including moving and writing time), I gave each dancer a page from a sketch pad and a variety of drawing utensils that included oil pastels, chalk, colored pencils, and crayons. I gave the dancers several minutes—generally ten to fifteen—to draw something that expressed the thoughts and feelings that came up for them during the movement. We spent time discussing these drawings along with the dancers’ journal writings and movement experiences in general.

This extra aspect of reflection allowed the dancers to discover something deeper within each experience, to visualize and express in another way what was emerging for them. Panhofer and Payne explain in their article “Languaging the Embodied Experience” that

The challenge of wording and communicating the embodied experience has long been examined by philosophy. The Austrian-English philosopher Wittgenstein challenged in his early oeuvre *Tractatus Logico-Philosophicus* (1922) the limits of language. When searching for a publisher for this book he wrote to the editor Ludwig von Ficker in 1919: “I once wanted to give a few words in the foreword which now actually are not in it,
which, however, I’ll write to you now because they might be a key for you: I wanted to write that my work consists of two parts: of the one which is here, and of everything which I have not written. And precisely this second part is the important one” (221).

I wanted to attempt to limit the amount of work that was not able to be expressed, and if the dancers made a sketch of their experience, I was able to see and interpret their experience whether they were able to express what they were feeling through words or not.

I continued the focus of phase three by asking them to be intentional about their choice of the drawing utensils and colors they used to depict their experience. Prompts that I introduced in this new phase included Has that always been there? (Appendix A.16), Connection, acquaintance, associate, friend (Appendix A.17), Microscoping (Appendix A.18), and Free to be (Appendix A.20).

Phase 5: Creating - “always already in the world”

Phase five of the research was initiated to create something that would represent the work that the dancers had accomplished. This was the form of a dance concert that took place on April 6-7, 2018 at the UCI Experimental Media Performance Lab (xMPL). I chose this venue because it allowed me to have many options for developing and setting up the environment for the performance in terms of seating arrangements, set design, and projection media.

When I was setting up the space, I chose to have the audience seated in a round because I didn’t think that a traditional proscenium stage would provide enough opportunities for changing perspective within the dance. I wanted an underlying theme of each audience member having a different perception of the piece based on their specific perspective. I eventually decided to have the seating arrangement in a rectangle because the set design was an important aspect of the
piece, and placing the audience in a rectangle allowed me to have more floor space to place props.

I initially started rehearsing with a composer who was set to play live for the concert. I believed that live music would be another element that would add to the environment I was curating. I also hoped it would create possibilities for more choices, because the musician would be making choices and the dancers and audience would be able to respond from awareness of the changing sound. However, after several rehearsals with the composer, a scheduling conflict arose which made it impossible for them to play live. I made the choice to transition to using pre-recorded music and used several pieces from different artists to shape the sound for the concert. This element of choice was lost in the performance, but I felt I could make up for this in set design and choreographic elements.

The scenic aspects of the piece were a large part of creating meaning and cohesiveness. I knew that I wanted to have the environment change throughout the piece, and so I decided to include props and scenic elements that could be moved and manipulated. I brainstormed with my dancers to decide what we wanted in the space and what the meaning of the props would be. I used brainstorming as a tool several times as I created the concert because I wanted the dancers to be part of the choice-making process of the performance that was to be a representation of their experiences. I asked them to brainstorm elements that would require them to make a choice in a dance performance, how the audience could be included in choice-making, and specific choices that could be made to influence changes in the environment.

I wanted to incorporate the dancers’ drawings from the Sketching phase into the concert, so I used them as part of the projection media. I first recorded the dancers performing solo
movement phrases and movement improvisations as well as group improvisations in front of a green screen. I then scanned their drawings into the computer and used them as the background for the movement video. I used drawings from the first half of the Sketching phase and solo movement video for the first projection section of the piece. For the second projection section, I used one of my own drawings and the dancers’ drawings from the second half of the Sketching phase to be the background of the group improvisation video.

I met with my dancers for several weeks to develop movement material based on their journal entries and drawings from previous meetings. The dancers created a large majority of the movement material because I wanted the piece to be based on what each of them had gained from the practice. To create movement phrases, I asked the dancers to pick a journal entry or drawing to be the inspiration for that particular phrase. Once the dancers had choreographed the movement I would observe it and would give notes about how they could refine it for the performance. For several movement phrases, I gave different tasks to each dancer to alter the movement from its original form. This exercise created an original “A” phrase and a new “B” phrase that the dancers could choose between during one improvisational section of the performance.

We continued practicing embodiment and awareness throughout the process of creating the concert. Training enaction in the practice ensured that actions in the performance were based on fully aware perceptions of the environment. The title for the concert stemmed from a discussion during continued practice and awareness of being embodied and embedded. The idea came from anthropologist Thomas J. Csordas’ article called “Somatic Modes of Attention.” He writes, “To attend to a bodily sensation is not to attend to the body as an isolated object, but to
attend to the body’s situation in the world. The sensation engages something in the world because the body is ‘always already in the world’” (Csordas 138). The title of the concert was chosen to be *always already in the world* as a representation of this concept. The title for the piece was a phrase that was said in a discussion with my dancers early on in the process, which was “when they could find the stillness.”
FINDINGS AND DISCUSSION

“Our own body is in the world as the heart is in the organism: it keeps the visible spectacle constantly alive, it breathes life into it and sustains it inwardly, and with it forms a system.” — Maurice Merleau-Ponty, *Phenomenology of Perception*

Overview

As I revisited the dancers’ feedback and my observation notes about their experiences in this process, I realized that the five phases of the research method correlated very closely with the five phenomena of enaction theory. Autonomy to *Exploring*, Embodiment to *Discovering*, Sense-making to *Refining*, Emergence to *Sketching*, and Experience to *Creating*. Because there is not yet a solidified definition of these terms in enaction theory, I used my findings to develop the terms by defining how they relate to movement research. Focusing on these connections led to a more clearly defined purpose for the research: testing enaction theory and exploring how it relates to movement improvisation as a way to enhance awareness. Once I related the work more closely to these ideas it became more about agency, and how we have the ability to create our perception through movement—whether it is dance movement or every day movement that is performed to experience the environment. Each of the elements of enaction theory will be described in terms of their relation with the phases of my research method, and the development of their definitions as I related them to the findings of this movement practice.

Autonomy

The dancers had similar experiences at the initiation of the research process, expressing feelings of reacquainting with their body and practicing focusing on an individual level. One dancer mentioned that she was practicing focusing on self and finding stillness; another revealed that she was focusing on moving beyond technique to find herself in the movement. This
redirection of the experience to somatic awareness and its focus on paying attention to one’s inner sensations led to my categorization of phase one as paralleling autonomy. Autonomy is not about being separated from the environment and acting independently from interrelationship of mind, body, and environment. It is about the ability to exercise control over the choices we make in relating to the environment.

This idea surfaced in the study of agency and is expressed well by Ariana Strozzi who writes, “The body is the only unity of self that we can control...we cannot control others, but can only change ourselves, and by changing ourselves, we contribute to the potential change of our greater environment” (51). By coming to terms with being autonomous, the dancers were actually able to have a greater authentic effect on the way they interacted and changed the environment because they were not trying to assert control over anything that did not fall under their own autonomy.

The dancers started to develop autonomy from the beginning of the practice when I assured them that I did not have any expectations for what their experience should be. This allowed them to be free in their movement responses to prompts and in reflections through journaling and discussion. They did not feel directed to any certain thing that they thought I was looking to see or hear. Because I stressed that I was not looking for anything specific, the dancers were able to take the practice on a pathway that was beneficial to them as individuals in each of their interests and levels of experience. During a movement exploration in this phase, one dancer was at a place of finding, through physicality, a balance in her relationship with gravity, while another dancer was quite still as she was focused on becoming aware of the source
of her thoughts. Both of these were legitimate experiences even though they varied quite differently in concept.

Early in the practice I began to worry that if the dancers weren’t moving enough, they wouldn’t be getting the fullest experience possible. However, I had a realization about the role of “stillness” in enaction as I was observing them during one of our meetings. I wrote this journal entry as a reflection of these observations:

*Energy brings about a sense of embodiment. This makes sense because if we are not in our bodies we are not moving. Even when we are not “moving” our bodies continue to move internally. I can almost see this movement inside someone who is “still” and yet is becoming embodied. Sometimes we have to be still to allow ourselves to align, and other times, sometimes we must create space for the energy of embodiment within ourselves through movement.*

At this time I realized that even though enaction requires action, that does not mean it has to be any expected definition of trained or technical dancing. The dancers were all autonomous and needed to have their own experience free of expectations of what the exploration “should” look like. Sometimes just focusing our awareness whether internally or externally is the action that is needed to enact our perception.

**Embodiment**

Something that I questioned throughout this process was the necessity of movement research in this field of study. I wondered what an embodiment practice would be able to contribute to the discussion that philosophers could not already contribute through writing. However, during this phase I found that it was very important to participate in the movement aspect of the practice in order to have significant reflections. When I did not participate in movement prompts, I could see a very large difference in the depth of reflection I was able to
have, and when the dancers were not connecting to a prompt physically, the discussion was quite limited. If we accept the body as inseparable from cognition, then embodying the research is the best thing we can do to understand it. Ezequiel A. Di Paolo et al. emphasize the importance of practicing enactivism as well in their article “Horizons for the Enactive Mind.” They explain, “The implication is that in order to work as a source of knowledge, enactivism will contain an element of personal practice. It is necessary to come back to the phenomenology and confirm that our theories make sense, but this means that sometimes we must become skillful in our phenomenology as well—personally so” (45). This view helped to highlight the focus on embodiment and validated the movement method with which I chose to investigate.

Embodiment seemed to have a clear relationship with phase two, Discovering. The main focus of phase two was to deepen levels of embodiment and begin to bring awareness to the dancers’ relationships with the environment. One of the prompts that related very clearly with embodiment was Matching forms (Appendix A.6). The act of embodying images in this prompt brought up a variety of interesting connections between bodily forms and abstract concepts, which relates to conceptual metaphor. One dancer explained that a spiraling movement helped her explore opposition in life and understand that we require challenges in order to feel accomplished. Embodying an image of an animal that does not like light caused a dancer to reflect on the body’s natural reactions to retract when it is hurt. Another dancer embodied the image of a tornado, with a fierce outer and a stillness within the eye. She related tornadoes to how people choose to live their lives—either in the chaos of the outer, or the stillness of the center. My own response to this prompt was in regards to an embodied experience of falling and recovering and how that relates to building strength. I wrote:
Relationship between earth and body. We gather intelligence by moving through the world. The universe gives us gravity, to ground us, to shape us. To strengthen us. We know how to push, to persevere because we have been relating to gravity since we were created.

The responses from all of the dancers in this prompt’s discussion brought up interesting images and relationships between what we experience in our bodies and the abstract ideas that we learn as we make our way through the world. Because of the success in depth of discussion, this prompt resurfaced more than one time for further exploration into conceptual metaphor.

In an attempt to guide the dancers into establishing a relationship of any kind to the environment, I introduced the prompt titled Scatter life energy (Appendix A.5). This was a simple prompt that simply asked the question, “how can you enliven the world with your body?”

I participated in this prompt and reflected with the following journal entry:

I enliven the world by giving it my weight. I allow it to support me. I give in and it gives back, drinking in the shared weight. I think it thirsts for our trust. I give my energy, to energize the air, molecules bouncing around my positive space. I allow them space between my body parts, to roam without interruption, taking time to explore the negative space I create. In some way I feel I can help the earth’s rotation, or feel in relationship to the subtle turning, so small it is undetectable, but then… maybe for a moment. Perhaps that is a thank you for the small gifts I have given in this moment—a massage to this space ever here to support me.

Various relationships appeared when the dancers applied the sensations of their embodied states to a relationship with the environment. One dancer explored by enlivening the world with light movement and with care and grace. They described their movement as palms open, breath coming in and allowing it to escape. She was working with a subtlety in enlivening. Another dancer found that mimicking other dancers allowed her to share experiences in the world with other people; this was her way of enlivening the world. Another dancer used imagery by creating
patterns in imagined sand, and focusing on making an impact with those patterns. Another response was inspired by human contact. The dancer knew contact was a meaningful way to connect, so she began by finding new ways to move in contact with the floor. Each of these responses came from a place of embodying a relationship with the environment.

**Sense-making**

I consider sense-making to relate to choice-making, because I found that as we make choices within the world, we are also making sense of the world. As we reconnect to the intelligence of the body through sense-making exercises, we uncover the capacity of the body to create solutions for the choices that surround us. We explored both sense-making and choice-making in *Twice, looking in* (Appendix A.9). My account of this experience expressed the meaning that was stemming from the choices I made:

*I became more embodied if embodied means whole. I found these two polarities within myself that became like a twist of two that fit together because I opened myself to the idea (or discovered while looking into myself) that two things, multiple things can reside in me. As I was dancing I became much more free to possibilities. New choices would present themselves and I was now able to receive that choice within myself. Freeing. Freeness became ironic when the choice became to bind. I made the free choice to be bound and remain bound. Maybe I needed to experience this in order to find the release to free myself even deeper into the agency I had found. And the third eye was truth. Had I become aware of the truth within myself or within the universe? I believe the truth of the universe does reside in our bodies, we have only to search for it and discover it after many expeditions. And maybe we will never fully understand, but we can sense.*

Several of the dancers expressed having some version of an “out-of-body experience,” but also noted that they found meaning in the new perspective it gave them. One of these dancers explained that they closed their eyes and pictured in their mind’s eye what they thought their
movement looked like as they were performing weird shapes. She concluded by making sense of
this work as a way to accept herself as she is. Another dancer expressed feeling an elevated sense
of embodiment, even as they decided to imagine themselves watching their life play out before
them. She found that her movement was based on the concepts and meanings of different
memories. The dancers’ choices to allow themselves to look outside of themselves brought new
meaning to their work and new ideas for them to consider.

One dancer expressed frustration at not feeling embodied during or after the same
exercise. They explained that when they were moving they were constantly searching for a
beginning and for meaning within the movement. It seemed that she was limiting her
possibilities by searching for what she thought was “supposed” to be happening, rather than
confronting the choices that were actually present for her. Because she did not open herself to
choice-making, she was unable to connect to any meaning of the experience through
sense-making. We discussed the implications of limiting ourselves through expectations and
concluded that experiences of perceived failure can also be sense-making experiences as we
learn from mistakes.

An additional prompt that relates to sense-making is Embodying site (Appendix A.12).
The dancers moved to a place of their choice outside the studio to explore this prompt. The most
interesting finding of this prompt is that even though the dancers were separated, they all came
back to discussion with similar thoughts about what sense-making had occurred for them. There
was a theme of observing different ways that the body has natural protective instincts. One
dancer found herself shivering and thought about how her body wanted to keep her warm and
happy. She pondered about how her body ultimately wants to make the best decisions for her.
Another dancer felt some fear at the prospect of dancing where people passing by could see her. She tried to fight the natural instinct of the body, and pondered about whether we, as a society, condition the mind to keep us from taking risks. Another dancer also dealt with risk by sitting on a ledge. She let her body fear the fall, and reflected on how wonderful it is to have a body that wants to protect her. Yet another dancer felt the instinctual reactions of the body when she touched a cold bench and pulled away immediately. She also wondered about overriding the natural reactions, and tied these thoughts back to embodiment by pondering if being more embodied would allow people to break away from limitations that our instinctual or habitual reactions bring. I felt encouraged by the cohesiveness of the discussion on these experiences, because it seemed that the practice was starting to pull into something that made sense to the dancers.

**Emergence**

Emergence relates to the *Sketching* phase of the method because it allowed for the dancers to derive subconscious meaning from their movement experiences. For example, the first drawing that I did (Appendix B.3) seemed to just be a series of lines and swirls on a page. However, at closer look, I realized that it was a sort of representation of what I was observing in the space during the movement prompt. Another example of the subconscious experience of the body coming out in the drawings was when a dancer unknowingly drew a pattern that closely resembles actin and myosin—parts of a muscle that initiate movement (Appendix B.13). She had no knowledge of what these were, but because she was focusing on pure movement in her exploration it seemed that this was what had surfaced in her mind.
As all of the drawings were studied during and after their creation, new ideas would emerge for reflection and discussion. In our framework, we established emergence as practice that brings new ideas and associations into the work. I gave the opportunity for the drawings to range from completely abstract to more representative pictures of a dancer’s thoughts or physicality as they explored a prompt. The dancers took this freedom into many different directions as we explored this method of reflection (Appendix B).

*Microscoping* (Appendix A.18), led the dancers into a very specific exercise in imagery as they scanned their bodies and sent their focus to a very small and specific part of their body. This was the first prompt that was used to inspire and create sketches. After the movement prompt, I gave the dancers freedom to sketch whatever their experience was, but I suggested that they could draw a representation of their body. Most of the dancers interpreted this as drawing the part of their body on which they had been focusing (Appendix B.10, B.11, B.15, B.16). An idea that surfaced for several of the dancers in this prompt was that of emanation. Many of them reported a sensation of emanating light or heat from the cell or part of the body to which they had sent their focus. We discussed how emanation related to our connection with the environment, and how a giving/taking relationship can be balanced as we move through the world.

I also used the prompt *Free to be* (Appendix A.20) several times with the idea of sketching to reflect on whatever came up during the movement. I wanted to allow the dancers a chance to explore whatever was coming up for them personally in the research. These movement sessions yielded very interesting sketches (Appendix B.5, B.8, B.13, B.17) and discussion about the choices made when moving as well as when creating the sketches. The direction to be
intentional about what colors to choose and what writing utensils to use created a clear shift in the dancers’ focus in expressing their experience. By creating a visual with clear intentions of choice, they were able to articulate their thoughts about the movement and the research clearly and with greater depth of meaning and implications for further exploration.

**Experience**

The process of creating the concert in phase five of the method brought about many opportunities to experience new ways of moving, and new perspectives within the same movement experience. The meaning of elements within the work became clearer as each development in the piece was experienced. The concert in general was very focused on the experience of the dancers as they related to the environment of the set, as well as on the experience of the audience members as they observed the environment and then had the experience of making choices to alter it or change their perspective of it.

As we moved through the *Creating* phase, there were many opportunities to repeat experiences in rehearsals and clarify the material that we would perform onstage. One of the main jobs as the facilitator of this research was to ensure that participants were given the experiences that they needed in order to explore an initiation of greater connection between themselves and their environment. This was done in the process of developing the performance by introducing prompts like *Connection, acquaintance, associate, friend* (Appendix A.17). The experience of this prompt was a turning point in the research because the dancers were able to establish a certain trust with one another, which generated a very caring and generous environment. All of the dancers reported that they felt supported as they moved with and through each other in this prompt, several expressing that they had never connected that strongly with
other people through dance. One dancer described the movement as being like vines growing, everyone intertwined but with no conflict. Other descriptions from the dancers included feeling safe, supported, stable, comfortable, selfless, and positive physically, mentally, and spiritually. I chose to include this prompt in the concert because I wanted this experience and general feeling to be extended throughout the piece, as well as within the remaining research and development process.

As the concert developed, I gained greater understanding of the meaning of the elements of the set as we continued to integrate them into the movement. Each piece of the set was chosen because it had the potential to be made dysfunctional. For example, an umbrella with the fabric cut off so it left only the wire, or a table that had one of its legs sawed down so it rested at an angle. Each prop varied in the obviousness of dysfunction and level to which it distorted its use from the original purpose. I also included mirrors in the set design, because *Twice, looking in* (Appendix A.9) was an experience that lingered with the dancers even as we progressed to other prompts. Another inclusion of the set was a drawing station where dancers and audience members could sketch a picture as a reflection on their experience of being in the piece. All of the “dysfunctional” props became functional within the piece by transforming into something that could be used, moved, observed, or otherwise fused into the experience of dancers and audience members.

I felt that there was a community developed as audience members were invited to join dancers in the space to interact with props. During two different sections of the piece, dancers handed out slips of paper that had written two options for interacting with the space. Audience members seemed to feel comfortable participating because I had designed these invitations not to
call people out to participate, but to offer them a chance to become one of many people experiencing a connection with the environment. I felt that each element of the concert came together to create a full experience of practicing agency, as well as being a successful showcase of the journey of myself and the dancers as we developed the work that led up to showing the piece.
CONCLUSION

“The states of a car’s engine are necessary conditions of its driving activity; moreover, in certain conditions one can change the car’s driving behavior by directly modulating the states of its engine. But it is absurd to think that the states of the engine are alone sufficient for driving! The engine needs to be properly embodied in the vehicle, and the car itself must be situated in an appropriate environment. A car suspended from a hook, or up to its windows in mud, won’t drive, no matter what the state of the engine … Why are we so certain consciousness depends only on what is going on inside us?” — Alva Noë, Action in Perception

In this thesis I have attempted to answer the questions that began this research journey. When considering societal issues that resulted from a disconnection from the environment, I realized that probably the most prevalent is a loss of the ability to practice agency. Through integrating with the environment, my dancers and I found that we were able to begin to sort through this limitation by actively and intentionally practicing choice-making. To connect with the environment, we found that we needed to acknowledge that our perceptions of the world had a direct relationship with our inner thoughts, feelings, and sensations—that they are always in relationship. When we began the somatic practice, our perceptions of the world began to change as we increased our awareness through movement. With this increased awareness of inner and outer sensations and perceptions, the dancers were able to see an increase in possibilities for interacting with the world through dance or everyday movement.

The main limitations for this research were time and lack of experience. Having only five meetings to create and experiment with an entire practice framework is just not plausible. It does not give time to fail and refine and improve and polish the movement prompts into the most effective presentation. Most of the dancers not having experience with this type of work required even more development that would have benefited from more time to build a strong foundation
of movement research and an ability to express experiences clearly and without inhibition. However, I believe that I made a start on developing the framework, and that the findings of this process are evidence that it is a worthwhile pursuit to continue development.

The execution of the research method has led to some clarification of the enactive theory of perception as it relates to movement research, especially in adding to definitions of the five phenomena of enaction. We used dance and movement improvisation to increase awareness and explore possibilities for making choices. By doing this we have enacted the initiation of an experience, as well as created possibilities for enacting new perceptions of the environment. This created a cycle of action, learning, and experiencing our mind and body as one in functioning within the environment.

Since beginning this research, I have come across several references to the science fiction fantasy that suggests consciousness can be transferred from one body to another, or from a body to a machine, with no loss of individuality. Popular culture has been excited by the promotion of this possibility of the mind living beyond physical death, using a similar storyline in books, television shows, and films. We, generally, as a Western culture, seem to believe that our bodies make up no part of our true selves, and that it may be possible someday to preserve ourselves by simply transferring thoughts, memories, and cognitive function to another container. But, this fantasy completely ignores the generative location of those thoughts, memories, and cognition. It is important to understand that the body is an essential part of who we are, and is necessary in the process of cognition that defines us as individuals.

This practice creates deeper thought and therefore deeper consideration of possibilities for action. George Lakoff and Mark Johnson rebut this popular idea by saying,
There is no such thing as a computational person, whose mind is like computer software, able to work on any suitable computer or neural hardware—whose mind somehow derives meaning from taking meaningless symbols as input, manipulating them by rule, and giving meaningless symbols as output. Real people have embodied minds whose conceptual systems arise from, are shaped by, and are given meaning through living human bodies (Lakoff and Johnson, *Philosophy in the Flesh* 6).

We cannot go through the world imagining ourselves as separated within ourselves and disconnected from our environment. If we are able to explore ways to reconnect our vast capability as an autonomous human being with a body with the endless possibilities present in the environment, we will be able to create change in our relationships of body and mind and between self and world.

It is only through the exclusionary function of awareness that the *involuntary* is made *voluntary*, the *unknown* is made *known*, and the *never-done* is made *doable*. — Thomas Hanna
BIBLIOGRAPHY


A.1 - "What are you practicing?"

You have permission to be into yourself. Ask yourself what you are practicing today, in this moment, this year, this era. Move, observe, or write. Become aware of images, thoughts, experiences, memories, sensations, connections that emerge from the exploration of questioning.

A.2 - Sensations and what else?

Connect with your sensations. Spend time with each sensory mode as you become acutely aware of the sensing ability of the body. You have five senses, but what if you have more? What are other ways that you are able to perceive? Explore with finding obscure sensory modalities. What is affecting your perception of your environment?

A.3 - Cellular makeup

Look into your body. Imagine each and every cell, one by one. Create a vivid picture for yourself of your internal landscape. What is special about your body (you are the expert)? Spend some time with this. Why is your body the way it is? Think about what your environment has given to make your body the way it is today. How is this relationship deepened by realizing these connections?

A.4 - Animate aliveness

Become more embodied. Be aware of how you are becoming embodied. What starts the process? How did you become more present? What processes did you invoke? What sensations awakened you to animate aliveness? What is different in your current state that
defines your embodiment? Do you perceive yourself and the room differently now? What enables the process to continue?

**A.5 - Scatter life energy**

How can you enliven the world with your body?

**A.6 - Matching forms**

Move through shape forms or movement. Be acutely aware of what images of the world are surfacing (earth, society, culture). What externally is synonymous with the way you are moving or experiencing internally?

**A.7 - Empathy** (inspired by Glenna Batson comments in Mario Barrios Solanos’ “Dance, Somatics, and Neuroscience”)

Watch someone else move. What sensations are you feeling within yourself as you observe somebody else? Let those take you somewhere. How does relating to someone change your embodied experience?

**A.8 - Feeling pain**

Think of something in the world that frightens, saddens, angers, disappoints you. Where do you feel that in your body? Maybe it’s not somewhere obvious. Begin to breathe and move through this sensation. Does it heighten? Dissipate? Spread? Move? What size/shape is it? What images does it bring up?

**A.9 - Twice, looking in**

Start with an improvisation. Then sit close to a mirror and make eye contact with yourself. First look directly into your right eye for several minutes. Then into your left, and lastly into your third eye. Come away from the mirror and improvise again. How did
the experience of moving change from the first time to the second? Did you become more embodied? Did anything new appear? How did you navigate any new possibilities that may have appeared? What was your experience like of looking into yourself? What thoughts and sensations appeared during this exercise?

A.10 - Move and keep sensing

Begin moving and keep a continuous flow of movement. Do not stop moving as you heighten your awareness of the space? How might movement create space for gathering more sensory information?

A.11 - Stop and keep sensing

Begin moving, and then find a moment to find stillness and perceive your surroundings from this point of view. Practice perceiving with different sensory modes. Look and perceive yourself attentively from different perspectives. How does changing perspective physically with your body relate to changing perspective cognitively or emotionally?

A.12 - Embodying site

Choose a site to move outside. How does changing environments affect your level of embodiment? What is new? What is exciting? What is scary? What is boring? What is comfortable? How is this different than when you explore movement inside?

A.13 - Habits (inspired by Glenna Batson, Body and Mind in Motion)

Improvise movement until you become aware of habits that are forming/have formed in your movement. Pinpoint one to three habitual movements and repeat them several times. Now choose one movement to work with. Begin this movement over and over, but each time make a different choice in where the movement goes. Continue making choices that
alter the habitual movement, reflecting on your embodied experience as you become aware of and practice the possibilities within your body. Has the feeling of these habitual movements changed from the first time they appeared to the end of the exercise? How does constantly making new movement choices relate to embodiment?

A.14 - Look to see (inspired by Ann Cooper Albright, Training Bodies to Matter)

Literally seeing more with your eyes, opening awareness by allowing yourself to look at more things.

A.15 - Eyes all over

As you begin to move, imagine that you can see from any part of your body, from any angle. What is it like to imagine having eyes everywhere? Can you imagine what it would be like to have eyes inside of you? How does this feeling change your movement? What are you seeing?

A.16 - Has that always been there?

Try to become aware of the many different parts of you that create the whole. Try to find places in your body that you’ve never thought about before or focused on before. What interests you in these moments of perception? What is the process that is happening? Does this body part support or become mobile? Does it stay still? Or is it taking this moment to make its debut performance? Why? What do you think is the underlying motivation behind that choice? What movement quality does the awareness of this specific body part support or inspire? Is this quality something new to you? Does it remind you of anything?
A.17 - *Connection, acquaintance, associate, friend*

Find a physical connection with all other dancers. Become aware of the sensation that emerge from touching another human being. Start to move, keeping your focus on maintaining connection with other dancers. What are the different possibilities that you can create when you become aware of someone else?

A.18 - *Microscoping*

Find a comfortable place to sit or lie down. Do a body scan from one end of your body to the other. What is going on in your body in this moment? Send your attention to one individual cell anywhere in your body. Create an image in your mind of this cell that you have chosen to focus on. Why did you choose this cell? What does it look like? How is it relating to other cells around it? Is it a healthy cell? Unhealthy? Is it thriving? In pain? Begin to move, initiating from this single cell. What type of movement quality is this cell inspiring? Let the movement transfer to other parts of your body. Spend time exploring the quality and shapes that might be occurring from the awareness of this cell.

A.19 - *Receptivity vs. activity* (in part from Glenna Batson, *Body and Mind in Motion*)

Find a comfortable position where you are supported by the earth, close your eyes and become aware of all the sensations from the contact you are making with the earth. Then become aware of all the sensations from your contact with the air and the space. Become aware of the inner sensations, and consider the relationship between the sensations of your inner landscape to your outer relationship with the environment. As you continue to deepen and enliven these sensations, consider how you are perceiving. Are you more receptive, awaiting a stimulus to arrive to you; or more active, searching for and directing
stimuli? Perhaps your style changes with context. Can you make a choice to change your style?

A.20 - *Free to be*

Free move. Let your experience flow freely and naturally. What are you aware of in this moment? What is your body asking for? What are you giving it? How are your relationships and connections changing as you move?
APPENDIX B: SKETCHES

B.1

B.2

B.3

B.4

B.5

B.6