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Total Body Integration: A Phenomenological Heuristic Study

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TOTAL BODY INTEGRATION:
A PHENOMENOLOGICAL HEURISTIC STUDY

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in partial fulfillment of the requirements for
Master of Arts
in
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Abstract

The purpose of this research was to study the experience of a novice dance/movement therapist’s exploration and re-patterning of the six developmental patterns of total body connectivity and integration, as outlined by Peggy Hackney, and to determine the impact they have on daily life. Literature reviewed describes the evolution of the patterns of connectivity as a holistic approach to changing maladaptive movement patterns and begins to suggest how they can be an effective tool in dance/movement therapy due to research supporting the mind-body connection, systems theory, and embodiment theories. Phenomenological and heuristic research methodologies were applied in the research design, which spanned eight consecutive weeks and included coaching sessions, individual exploration, and reflective journaling. Through qualitative data analysis, themes emerged that describe the essence of the re-patterning experience and impact on daily life including: body parts, vulnerability/support, present moment experience, resiliency, compassion, and change. From the study, suggestions are made for a more informed use of the patterns of total body connectivity in dance/movement therapy for assessment and treatment of mental health disorders along with the significance of the patterns of total body connectivity to clinicians. By exploring the patterns of total body connectivity, dance/movement therapists may gain self-awareness that may assist in empathizing and moving with clients as well as self-care.
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Chapter 1: Introduction

The purpose of this research was to study the experience of the fundamental patterns of total body connectivity and total body integration, and their impact on daily life. Current literature on the subject matter tends to be theoretically based; however, the value of the patterns of connectivity lies in the ability to treat individuals holistically. This value along with the researcher’s personal development and curiosities led to this study and research design.

Research was designed using phenomenological and heuristic methodologies, thus the experience of the developmental patterns of connectivity were explored through the researcher, a novice dance/movement therapist. Through eight weeks of data collection, the patterns of connectivity were explored in developmental order with a movement coach and in solo movement sessions. The experience was documented through journal entries and video-recordings. From the data analysis, the essence of this experience is shared through the following themes: body parts, vulnerability/support, present moment experience, resiliency, compassion, and change. Exploring the patterns of connectivity was a transformational experience that provided growth and a deepened knowledge of the topic matter. As such, implications are made in the discussion chapter for the use of the patterns of connectivity in dance/movement therapy (DMT). The patterns of connectivity provide a modality for stimulating change by working holistically with clients’ minds, bodies, and interactions with the world. Furthermore, the self-awareness and knowledge gained by exploring the patterns of total body connectivity may allow a dance/movement therapist to better resource his or her body in DMT sessions and for self-care.

Background and Value of the Patterns of Total Body Connectivity

Movement not only surrounds humans, but it plays an intimate role in human development, perception, awareness, and health. Outwardly, movement can be seen as humans
moving through space to various destinations and tasks. Within the body, movement is happening. Human respiration provides rhythmic movement in the form of rising, spreading, growing, and shrinking (Hackney, 2002). Therefore, it is understandable that various scholars have studied movement patterns.

Rudolf Laban, an acclaimed movement theorist, is one such scholar. Through observations and explorations with movement, Laban developed a movement vocabulary that allows a foundation for research and discussion, which is widely accepted within the DMT profession. Not only was Laban interested in movement, but he “was interested in the human personality, the human psyche, human behavior and human experience” (North, 1978, p. 3). His work, which is currently housed within the Laban archive in Surrey, England, begins to make connections between movement, the body, and health (Moore, 2009a).

“Laban recognized the appearance of all kinds of discordant body tensions and rhythms in people who for some reason lacked social adaptation and personal well-being. He observed the definite connection between these disharmonious rhythms, muscular tensions and emotional conflicts” (North, 1978, p. 10). Dance/movement therapists continue to make the connection “that body movement reflects inner emotional states and that changes in movement behavior can lead to changes in the psyche, thus promoting health and growth” (Levy, 2005, p. 1). Therefore, by working with the body, dance/movement therapists create change by working holistically with clients.

Despite the necessity of the body in human development and functioning, disconnection from the body is not uncommon within Western society, which has created a dichotomy between the mind and body (Bartenieff, 1980; Hackney, 2002). The body plays a role in development as it helps to inform humans about the environment through sensory motor functions and
 proprioceptive feedback (Cohen, 1993). Even within day to day functioning, the body is needed. Despite this fact, attention begins to be drawn away from the body with age. According to Todd (1959), “our bodies are brought to our attention usually under disagreeable circumstances—when we are sick or injured, and the clothes have to come off to reveal a wound, burn or fracture” (p. 5). Todd claimed that society sees the body as messy and attempts to avoid it at all costs. The result can be considered an epidemic of a mind-body disconnection within our society (Bartenieff, 1980). Disconnection can occur because of lack of awareness, neuromuscular coordination, or development of maladaptive patterns. When disconnection from the body occurs, the full potential of well-being and individual expression is not achieved.

Even within developmental psychology frameworks, the role of the body remains under addressed. Scholnick and Miller (2008) stated:

Our culture, and our discipline, which reflects it, conceals the body so well that we do not even know that it is missing. Moreover, because our frameworks tend to eradicate the social locations in which bodies reside, there is no treasure map to indicate the body’s hiding place. (p. 248)

Scholnick and Miller described how the body is apparent in developmental psychology theories at various stages: in the womb, the first three years of life, and puberty. After this time, mastering the mind over the body is emphasized in developmental psychology and society through self-regulation. Contrary to these theories, Scholnick and Miller claimed development of the body and mind is ongoing; “we are bodies who change over time, and these changes are at the core of development” (p. 251).

While the body can be seen as missing within Western society and developmental psychology theories, the disconnection from the body is further seen in individuals with mental
disorders, such as depression, anxiety, schizophrenia, eating disorders, and self injury. In particular, people who suffer from trauma exhibit signs of disconnection from the body. For example, in a case study describing the use of DMT with a survivor of torture, Gray (2001) stated, her client “had separated individual body parts from the whole, and did not connect her physical experience of torture to her emotional pain. To decrease her emotional pain, she separated body from mind” (p. 40). Torture may be considered one of the largest violations to the human body and self, thus disconnection from the body may be a useful coping mechanism. In general, trauma causes disconnection through fragmented processing of the experience in the brain and body. Increased stress hormones cause the experience to be stored within the implicit memory system, where lack of consciousness, context, and understanding can cause fragmented intrusive somatic responses (Siegel, 1999).

While the disconnection between the body and mind is clear within clients who have experienced trauma, the same principle, perhaps exhibited in another way due to differences in etiologies, can be seen in other mental health disorders. Many mental health disorders, such as anxiety and depression have biological, genetic, and psychosocial factors that contribute to onset. These factors are complex and interrelated, thus issues are reflected in a client’s mind, body, and social interactions. North (1978) described how the inner activity of humans is reflected in the body and movement: “Sometimes it can be observed that movement activity (in rhythm and muscular tension) follows the inner activity; sometimes the emotion or inner stir follows the movement; at other times they are simultaneous” (p. 10).

DMT is an effective approach to treating mental health disorders holistically by working through the body (Goodill, 2005). Literature reviewed in the second chapter of this thesis will continue to support this claim; however, understanding how DMT works can be difficult to
understand and explain. Laban, Bartenieff, Kestenberg, and Hackney have brought language, assessments, and structure that can help describe how change is manifested by working with movement and the body. Bartenieff, one of the founders of the American Dance Therapy Association, utilized concepts from Laban Movement Analysis along with her additional training in massage and physical therapy in her work and teachings. This provided contributions to Laban’s work through the development of Bartenieff Fundamentals and the basic six exercises. Hackney clarified Bartenieff’s work further by describing fundamentals of movement and six developmental patterns of total body connectivity (see Appendix A for definition).

The patterns of total body connectivity provide a structured and holistic approach to treating mental health disorders. Mental health disorders affect the entire system of an individual, his or her mind, body, and interactions with the world. Hackney (2002) described how re-patterning body connections will not only affect the physicality and inner activity of an individual but will also affect how the individual interacts and responds to his or her environment. The patterns of total body connectivity work by creating wholeness through integration, placing all the differentiated parts into relation. While research on the patterns of connectivity is limited, their holistic nature, prevalence in movement, and ability to address developed patterns speak to the value of this study and the need for further research.

Research on the patterns of total body connectivity is limited largely because of the complexity of the system in which they reside. Literature written on the patterns of connectivity is theoretical and application based; however, research is important on this topic. The body is a vessel from which each person experiences his or her self and environment; it is intricately woven into our development, relationships, perception, and being. Therefore, the patterns of connectivity provide a structured way of creating change. Currently, dance/movement therapists
use the patterns of connectivity in assessing clients and in informing interventions. More research will inform how the patterns of total body connectivity can be used in DMT to stimulate change.

**Thesis Development and Role of the Researcher**

I am often faced with the question of how I came to the place of using myself as the participant in this study and researching the patterns of total body connectivity; there are many reasons including the value I found in the patterns of connectivity and my own relationship to my body and movement. In training to become a dance/movement therapist, I have realized the potential that movement has in changing not only movement but the mind as well. As a DMT intern, I worked in a comprehensive rehabilitative day program with clients who had traumatic and acquired brain injuries. Brain injuries can affect the mind, body, behavior, emotions, and cognition of individuals. Working with this population, I witnessed the pain that my clients felt in trying to be in their injured minds and bodies; however, I also saw their resiliency and ability to change. As change happened at a physical level, it often occurred simultaneously with achievements in the clients’ cognition and mood. In addition, I also had the privilege of working in a program supervised by a dance/movement therapist. My supervisor embraced the patterns of connectivity as assessment tools, interventions, and modalities for self-care. I learned from her expertise in this area, which provided additional motivation to research this subject matter.

Initially in preparing to do my thesis research, I became interested in how my clients held the unconscious but traumatic memory of their brain injury in the body, which caused disconnection. However, researching trauma is ethically challenging, and designing research within a comprehensive rehabilitation program has its own obstacles. I spent numerous hours reading about methodologies trying to figure out what it was about the phenomena that I wanted
to study and how to do it. I realized that the questions I was curious about had personal relevance and importance to my role as a dance/movement therapist.

Throughout my training in becoming a dance/movement therapist, I have been asked to reflect on my own experiences and how they inform my interactions, decisions, and body prejudices. In considering this, I revisited questions that my professors have asked me in the course of my training. What do I hold in my body? Why do I hold it? In wondering about these questions and considering my relationship to the body, I returned to my own development of the connectivities and my own maladaptive patterns related to them.

As a child, I remember moving freely through space, spinning, twirling, and giggling. My motivation came from an internal desire to move and explore. My passion for movement and rhythm led me to taking technical dance classes starting at age 11. As I worked to master flexibility, turn out, and dance steps, my competitive and perfectionist nature won out. I had potential, but I pushed my body to the limits hoping to achieve the outward vision I associated with how a dancer should move and look. I do not think I am alone in this journey of learning dance in this way; however, for me, I came to a place where I realized I needed to change. My musculature was being used to force stability, and my mobility was being hindered. I began to lose a sense of the freedom, fun, comfort, and regulation I originally found in movement. In retrospect, I can see that I began to disconnect from my body. In my relationship of connecting to my body that is still ongoing, my internal flame has flickered with moments of questioning the power of the body and moments of remembering.

Throughout my journey, two memories of moving have remained with me. First, I remember the freedom and joy that I felt dancing as a child, choreographing dances with my sister and alleviating the tedium of chores with impromptu creative movement explorations.
Secondly, while I may have developed some patterns of moving that were maladaptive, dance classes, particularly ballet, provided structure and an outlet for my expression. For me and in my family, these included coping with my parent’s divorce and my brother’s health issues. When I was 18 months old, my brother was born prematurely with Downs Syndrome. His presence in our lives is a blessing, but his heath did cause worries for my family. I found dance classes to be an outlet for coping with these familial stresses. For these reasons along with movement’s role in nonverbal communication, I became interested in DMT.

As I learned the patterns of connectivity as a part of my DMT and Graduate Laban Certificate in Movement Analysis (GL-CMA) studies, I struggled to change my previously developed ways of moving. During one GL-CMA weekend, I remember my instructors trying to help me access my cross-lateral connectivity. One of my instructors held my leg while another held the opposite arm. They rocked movement through this diagonal pathway in my body attempting to get my core to be responsive. Another instructor came over to offer touch cues to help me yield through my ribs. With this, a rush of emotion overwhelmed my system. At the time, I was not sure why these emotions arose. Now, I can appreciate how my body holds memories, emotions, and tension (Siegel, 1999).

Through early development, I began to store implicit memories in my body. Development is not static, and my body responds to the continued life stresses and interactions that I have in the world (Scholnick & Miller, 2008). For this reason, I found working with the patterns of connectivity is a personal process that reached the core of my being. I attribute this to one of the reasons why receiving feedback about my patterns of connectivity was difficult. My instructors and peers would give me feedback on my weaknesses, which seemed to include every pattern of connectivity. At times, I felt almost hopeless. Improvement was difficult to track, due
to the subtlety and nonlinear nature of the change. One day, I might feel like I mastered a connectivity; however, with the ever changing body, maintaining mastery seemed difficult. With time, I did begin to feel a shift in my body, movements, thoughts, and feelings; however, the change was wrought with struggle, resistance, and feeling incredibly unsure and uncomfortable. As I recognized a more holistic way to move, I began to feel compassion toward myself and empowered. While I improved my movement within the program and during this research, this process is challenging and ongoing. I was curious about my experience re-patterning and felt there was more clarity I could bring to this process. By revisiting the patterns of connectivity through structured research, I could continue my journey with movement and bring further understanding to the experience.

Methods

Developing a research design that could study the complexity of the patterns of connectivity was challenging. By grounding the study in phenomenological and heuristic methodologies, I was able to research the complexity of the connectivities while maintaining a direct focus on myself, whose previous experience was the impetus for the study. Phenomenology focuses and places value on describing experiences while heuristics theorizes that the only real experience that a researcher can know is their own, which can then be generalized to a universal audience (Moustakas, 1990; Moustakas, 1994). I found these methodologies challenged my previous perspectives on research but supported my personal curiosities. Throughout the research process, these methodologies aided me in finding personal fulfillment, value in my experience, and building self-awareness.

In addition, these methodologies align with the humanistic theoretical framework I prefer using as a therapist. Within this study, I was not in the role of a clinician where my theoretical
framework may provide information for my research. However, this research can be seen as supportive to my theoretical framework, development as a dance/movement therapist, and future work as a clinician. In humanistic therapy, the therapeutic relationship is of the utmost importance. Learning to value my own experience and building my self-awareness will help me as I enter into therapeutic relationships with my clients. In addition, implications made in the discussion chapter of this thesis describe how the patterns of connectivity may provide a modality for self-care that can prevent negative somatic counter-transference, compassion fatigue, and burn-out for clinicians. Entering therapeutic relationships requires trusting clients, empathic responses, and active listening (Martin, 2000). Over time, these tasks can become strenuous without an appropriate outlet for self-care.

**Thesis Outline**

Data was collected over an eight week period through video-recordings of coached movement sessions, reflective journaling, and structured evaluation through the use of movement assessment coding sheets (see Appendices B and C). A movement coach was hired to provide feedback, exercises, and insight about my patterns of connectivity for two-hours once a week. Practice is needed to support change, thus individual exploration and journaling was used to immerse myself in the patterns of connectivity on a daily basis. Reflective journals recorded my movement experience as well as illuminated how increased physical connection impacted my life. A more detailed description of the procedures taken in this research will be shared in the methods chapter.

My findings will be shared in the results chapter, which discusses themes that derived from my journal entries. This research provided a transformational experience and heightened my awareness of my movement and interactions with the world. While my journals included
reflections on the physical demands taken to increase my inner connectivity, they also
encompassed my movement development, memories, feelings about the DMT profession, and
social interactions. My experience of change, body parts, vulnerability, and experience of the
present moment were themes that I found in the data. In addition, the power of resiliency and
self-compassion were cultivated and recognized.

My experience with the patterns of connectivity has allowed me to build self-awareness
that will help me in my future work as a dance/movement therapist. In addition, it speaks to the
experience of working with the body in DMT to facilitate change. The patterns of connectivity
offer one way to address issues in the clinical setting; however, from my experience, I have
found that working with the body can be scary and resistance may arise. In the discussion
chapter, these considerations will be explored alongside the limitations of this study.

Appendices are included at the end of this thesis. In the course of reading this study,
definitions of terms may be helpful to the reader. Definitions are included in Appendix A for
further clarity and understanding of how relevant terms are used within this manuscript. In
addition, the movement assessment coding sheet (MACS) used for data collection are included in
Appendix B and Appendix C.

In the following literature review section of this thesis, literature will be reviewed that
supports this subject matter and the questions of this researcher: What is the experience of a
novice dance/movement therapist with the patterns of total body connectivity, and what impact
do the patterns of connectivity have on daily life? First, this researcher will look at literature that
supports the evolution of concepts that have influenced the patterns of connectivity outlined by
Peggy Hackney. This will include concepts from movement scholars and leaders in the field of
developmental movement. Then literature will be reviewed that supports the mind-body connection, development, and effectiveness of DMT in holistically treating individuals.
Chapter 2: Literature Review

Even before birth, the body and movement begin developing. Within the womb, the fetus moves in a fluid environment. After birth, babies use movement to sense their environment, create perception, and as a bridge between himself or herself and the environment. Gravity poses a challenge to coming to verticality; however, the developing baby learns how to sense his or her weight and come to standing (Cohen, 1993). As children continue to develop, mastering movement is a part of it—finding expressivity through outward movement and achieving functional tasks. North (1978) stated:

Every child is exposed to standard forms of expression which tend to limit his individual impulses in movement. He learns to write from a standard model, to play piano or to dance according to rules…all people remain conventional to some degree. What is important is the extent to which they break through the prescriptions of training and convention and develop their own stamp of individuality. (pp. 7-8)

According to North, movement portrays a person’s personality and inner activity. For this reason, the mind and body cannot be seen as separate.

However, the body and movement can become restricted. Whether tension begins to build up from repetitious functional movement, disturbances happen in development, or societal norms cause a discomfort with the body, movement and the body can become inflicted with the stresses of life and cause emotional distress (Hackney, 2002; North, 1978). For the purposes of this research, disconnection from the body can be defined, observed, or experienced as maladaptive patterns, inefficient connections, lack of self-awareness/neuromuscular coordination, or holding. Unconsciously holding tension causes disconnection by blocking energy and connections in the body. Disconnection occurs frequently in our society, and many
people are unaware of how moving through life in these ways causes missed potential for enriched experiences with themselves and others (Bartenieff, 1980; Hackney, 2002; Laban 1988; North, 1978). On the other hand, there are many people who are aware of how connection within the body promotes health and wellness. As stated in the introduction, Laban was one of these people. Laban attempted to help others find the relationship between movement and his or her inner world along with the role of movement in relating to others. By doing so, Laban attempted to bring a sense of wholeness to being human (North, 1978).

Utilizing the body as a holistic approach to health and wellness has trickled down to many of Laban’s students. With knowledge of Laban’s concepts, Peggy Hackney identified six developmental patterns of body connectivity: breath, core-distal, head-tail, upper-lower, body-half, and cross-lateral. She created suggestions as to how the patterns of connectivity can be explored and applied to psychology. It is of importance to this study to understand how Hackney’s concepts were derived and used. The first part of this literature review will encompass this task, describing how the patterns of connectivity evolved, what they involve, and how they have been associated with psychology.

The second portion of this literature review will focus on information about the mind-body connection, which helps bring evidence for the work dance/movement therapists do with the body. While the patterns of connectivity are not necessarily in and of themselves DMT, they are a tool that some dance/movement therapists use within their practices for observation and intervention purposes. The patterns of connectivity may not be a lens which all dance/movement therapists use in their practices, but the patterns of connectivity are thought to be present in all movement. Thus when dance/movement therapists use movement and work with the body, the patterns of connectivity are at play. In addition to literature on the mind-body connection,
literature will be reviewed on systems and embodiment theories, which conceptualize how the
mind, body, movement, and the environment interact in the process of human development.

**The Evolution of Concepts from Laban to Hackney**

Peggy Hackney identified developmental patterns of connectivity as fundamental to
movement. Her terminology derived from her work with Irmgard Bartenieff, a student of Laban.
Through her apprenticeship with Bartenieff, Hackney learned a background of information that
supported her synthesis of Bartenieff’s work and conceptualization of these terms. In order to
understand the support for the patterns of connectivity, it is important to credit those who came
before her, for the purposes of this study these influences were namely Laban and Bartenieff.
Their individual specializations contribute to the evolution of the patterns of connectivity. Laban
grounded movement studies within a comprehensive movement taxonomy, which provides a
common vocabulary and notation for movement observation. Bartenieff learned, used, and built
upon Laban’s concepts with specialization in the body, anatomy, rehabilitation, and psychology.

**Rudolf Laban.** Throughout his career as an artist, Rudolf Laban (1879-1958) wore many
hats. He began his career studying visual art. During this preparatory phase of his career, Laban
explored human anatomy, proportions of the body, geometry, and symmetry in his sketches. In
research based on the Laban archive in Surrey, England, Moore (2009a) found that “motion,
rather than anatomy, is accentuated” in Laban’s work (p. 43). These sketches are evidence of
Laban’s early explorations with movement. Through arcs and lines extended from the distal ends
of the body, Laban illustrated movement pathways and the potential for movement in the human
body. In 1913, Laban switched his concentration from visual arts to dance honing in on
movement studies (Moore, 2009a, p. 9).
Laban’s decision was not a popular choice for this period in history, when visual arts were a more reputable subject than dance, which “seemed to be condemned by its ephemeral nature” (Moore, 2009a, p. 9). Once movement passes, it vanishes making documentation difficult without modern day video-recordings. Laban helped provide means of documenting and studying dance through Labanotation, a movement taxonomy, and theoretical writings. Laban began applying his movement vocabulary within “many spheres: with factory workers and managers, with young people seeking vocational guidance, with sick children and adults, with students, teachers, doctors, and artists” (North, 1978, p. 1).

Laban found three categories to be “basic elements common to all movements” (Moore & Yamamoto, 1988, p. 187). These categories are body, effort, and space. Later, Warren Lamb, Laban’s colleague who worked extensively on efficient movement in the work place, helped develop a fourth category called shape. Under the body category, Laban outlined how movement of body parts, initiation, and postural and gestural movements can describe movement at a body level (North, 1978). Effort described the dynamic energy of movement, through variance in focus, pressure, time, and flow. Space dealt with not only where movement is happening but dimensionality of the movement to be described. These four categories can be looked at separately; however, “every movement event is a whole system, highly orchestrated with interactive elements of Body, Effort, Shape, and Space” (Hackney, 2002, p. 40). While one body part moves, an observer may also describe how it moves and where. For the scope of this thesis, the focus is on the body category.

Irmgard Bartenieff. Bartenieff further developed Laban’s body category, which up until this time “lacked a full body component” (Hackney, 2002, p. 1). Before being able to contribute to Laban’s body component, Bartenieff first mastered the vocabulary and theories by studying
with Laban in Europe “from 1925-1927 during the time when he was crystallizing his space
harmony theory and notation system” (Moore, 2009b, p. 26). For these two years, Bartenieff
performed in movement choirs and helped Laban experiment with his developing notation.
During her studies with Laban, Bartenieff learned about his movement taxonomy that she
continued to teach, particularly emphasizing the components of effort, space, and the relationship
between stability and mobility.

With the onset of World War II and to escape from persecution of her husband’s Jewish
faith, Bartenieff immigrated to the United States in 1936 (Moore, 2009b). Here, Bartenieff taught
and integrated her knowledge of Laban’s movement taxonomy in new ways. In 1943, she
“registered for the first course in Physical Therapy and Physical Rehabilitation at New York
University…when this whole rehabilitation concept of treating the patient as a whole person, was
just started” (Bartenieff, Schmais, & White, 1981, pp. 15-16). Bartenieff not only treated the
physical problem, but she empathized with patients and understood “what the presence of partial
or widespread loss of function does to all shaping and dynamics as well as the emotional and
mental attitudes of the patient” (Bartenieff, 1980, p. 4). With her first assignment working at
Willard Parker Hospital with polio patients, “every aspect of movement familiar to [her] through
[her] Laban training and supported by [her] anatomical training as a physical therapist became a
resource” (Bartenieff, 1980, pp. 3-4).

While inklings of DMT began to emerge in Bartenieff’s work, her first introduction to
utilizing movement to assess and work with patients with mental health disorders happened later
in her career by coincidence. Israel Zwerling, a psychiatrist at Jacobi Hospital in the Bronx,
began utilizing Bartenieff’s knowledge of Laban concepts to assess patients’ non-verbal
behavior. The therapeutic aspects of dance “that could free the patient to express feelings, build relationships, and change attitudes toward living” became apparent (Bartenieff, 1980, p. 10).

Bartenieff’s applications of Laban’s concepts were clarified further through her teaching. Bartenieff began teaching introductory classes on effort in the 1950’s. According to a video-recorded interview with Hackney, Bartenieff taught classes on effort and space along with a course which she called Correctives at the Dance Notation Center in New York City. Space and effort supported the holistic approach to working with the entire body as opposed to isolating and strengthening particular muscles. Each class began the same way with a simple question: “What is fundamental?” (Riesling, 2006). Hackney (2002) recalled that Bartenieff changed the name of the class to Fundamentals after realizing “she was really giving people a chance to experience or re-experience movement that is basic to all human beings. Her own impulse was to confirm what is fundamental, rather than correct something that was wrong” (p. 7).

Bartenieff’s students encouraged her to write about her contributions to Laban Movement Analysis. Initially, Bartenieff was not keen on writing about her teachings and gave the credit of her work to the theoretical framework of Laban (Riesling, 2006). Continued encouragement from her students resulted in her conceptualization of six fundamental exercises: thigh lift, pelvic forward shift, pelvic lateral shift, body-half, knee drop, and arm circles. Bartenieff (1980) claimed:

The exercises are deceptively simple. From the starting position of lying on the floor the mover is asked to 1) Lift the thigh, and return it to its original position; 2) Lift the hips off the floor, shift the pelvis forward, and return to original position… (p. 20)

While the exercises seem simplistic, they engaged muscle sequencing that is involved in all activity and “concerned with internal support of the body as it develops into uprightness”
Every movement tends to have one or a combination of the muscle sequencing required in the basic six exercises. For this reason in her classes, Bartenieff did not focus on doing exercises on the floor but on moving through space while upright allowing her students to shift weight and find balance while mobilizing.

While expanding the body category, Bartenieff built on her knowledge of Laban’s concepts. Bartenieff (1980) claimed:

There are three major Laban analysis concepts that are the core of Bartenieff Fundamentals exercises. First, the emphasis is always on mobility process rather than just muscle strength. Second, in all movement—from the small isolated gesture to a major total action—more than one factor is operating. Third, spatial intent, preparation and initiation in a movement sequence determine the whole course of a sequence and the quality of its function and/or expressiveness. (p. 21)

Within this passage where Bartenieff names three core concepts, more concepts sneak into the explanation, like phrasing and expressive versus functional movement. This shows the complexity of Laban and Bartenieff’s work. In addition, it speaks to the difficulty of studying and discussing systems and trying to describe them within clear terminology that does not devalue the complexity of the system.

Before moving on, the concept of stability and mobility will be briefly discussed. Stability and mobility is a fundamental principle found in the work of Laban, Bartenieff, and Hackney. At a movement level, Laban (1974) defined stability as “the tendency to facilitate temporary and relative quietude which is equilibrium. Mobility on the contrary means a tendency towards vivid, flowing movement” (p. 94). Stability and mobility have an interconnected reciprocal relationship. In order to efficiently mobilize, a dancer must come from a place of
stability. Within the work of Bartenieff Fundamentals, emphasis is “on finding the active connections from the core of the body out to the limbs. These connections are then either activated for grounding (stability) or activated to move the body part (mobility)” (Hackney, 2002, p. 46). Activating connections in the body prepares movers to utilize stability and mobility. In addition, mobility and stability can inform each other. By finding true grounding and stability, movers can find support to mobilize freely. Likewise by working with mobility, true stability may be discovered as opposed to holding in the musculature, which limits mobility.

**Peggy Hackney.** As time progressed, Bartenieff’s students began teaching and applying her work. Most relevant to this thesis is the work of Hackney. Hackney “came into the Laban work young, at age 18, and was already steeped in the structural notation by the time [she] met Irmgard when [she] was 22” (Hackney, 2002, p. 2). She had a background in psychology, which was a similar interest of Bartenieff’s and the reason she apprenticed with Bartenieff for 15 years. During this time, Hackney sought “to find her own personal clarity to bring to co-teaching with [Bartenieff]” (Hackney, p. 2).

Hackney also had the opportunity to work closely with Bartenieff as she wrote her manuscript, “The Art of Body Movement as a Key to Perception, which contained a great deal about the Fundamentals work…many valuable statements about Fundamentals were deleted from the final published book” (Hackney, 2002, p. 8). Much of what was deleted dealt with the neurological development on which Bartenieff Fundamentals were largely based, including “early reflexes, righting reactions and equilibrium responses as well as the importance of breath, core-distal connections and patterns in spinal, homologous, homolateral, and contra-lateral movement” (Hackney, p. 8). These are areas that Cohen (1993), who started a body-mind centering program, enhanced. In the book *Making Connections: Total Body Integration through*
Bartenieff Fundamentals, Hackney refined the work she had witnessed, experienced, and taught with Bartenieff including additional concepts Cohen illuminated.

Hackney (2002) stated the goal of Bartenieff Fundamentals is to facilitate “a lively interplay of Inner Connectivity with Outer Expressivity to enrich life” (p. 34). With a nonlinear nature, the focus is on the continuously changing connections within oneself, expressing this outwardly, and connecting with the environment. All in all, the goal is complicated, and there are many components that contribute to successfully achieving this goal. Most importantly, an understanding of what is fundamental to movement, a concept Bartenieff asked about in every class, is needed. Hackney identified change, relationship, and patterning body connections as fundamental in movement—“momentous change occurs, relationship is created, and patterns of connection begin to set up which will continue throughout life” (p. 11).

**Change.** Bartenieff was known to say: “The essence of movement is change” (Moore, 2009b, p. 16). When the body moves from one point to another, position, shape, location, and awareness of the body changes. Even when repetition of movement is utilized, change is still at work. The movement may become learned, but the inner attitude toward and production of the movement differs. Change is a representation of mobility. Laban (1974) stated:

> The human body is no more real than a flower, an object, a rock, or a star which appears, then vanishes after having existed for a day, a year, or hundreds of millions of years.

> Everything changes constantly without any true stability. (pp. 90-91)

The universe is constantly moving forward and changing. Movement at a cellular level, through vibration, begins the propulsion forward, moving towards complexity and changing.

Despite the inevitability of change, many individuals are scared or resist change and seek counseling services to cope. Within the *Diagnostic and Statistical Manual of Mental Disorders*
fourth edition, text revision (DSM-IV-TR), attention was given to coding phase of life problems for patients whose “problem is not due to a mental disorder but to a life change, such as marriage, divorce, new job, or retirement” (Morrison, 2002, p. 542). In addition, a diagnosis for Adjustment Disorders was included in the DSM-IV-TR to diagnose patients who have difficulty coping with stressors or change (American Psychological Association, 2000).

While Hackney (2002) did not associate working with movement to ameliorate symptoms of these disorders, she did comment on how movement can inform a person’s relationship to change: “When training to live in our world of constant change, training to enjoy the ever-changing relationships movement demands may be the most comprehensive training for basic intelligence” (p. 17). Hackney believed that movement can be a tool for incorporating acceptance for change into a person’s life. Furthermore, change can be actualized by practicing new movement and feeding the neuromuscular system with new information (Hackney, p. 24).

When working with adults on re-patterning, the idea is to create change in patterned ways of moving. Hackney (2002) identified that clients seeking this type of work want to create change either consciously or unconsciously. Since change is a process, knowing the steps of change can be beneficial when working with re-patterning movement and behavior. During the process of changing movement patterns, six steps can be expected during the process: noticing what you are already doing, accepting what you are doing and how it serves you, developing intent, clarifying intent, giving time and different situations to practice, and understanding that change is a process (Hackney, pp. 24-26).

**Relationship.** Being in relationship is an undeniable part of the human experience, which begins within the body. This starts with the basic premise that “the whole body is connected, [and] all parts are in relationship. Change in one part changes the whole” (Hackney, 2002, p.
Unlike the work done in physical therapy, working with the patterns of connectivity emphasizes working the relationship between body parts as opposed to “holding one part and moving the others against it” (Hackney, p. 16). All of the body parts work together to co-create the whole through integration. In this sense, movement is not about a leg kicking or an arm circling; instead, it is about how body parts can work together to create movement.

While relationship begins in the body, the goal of patterning connection within the body is to be outwardly expressive and communicative. Olsen (1998) explained how “early kinetic experiences are the basis for our understanding of self and other; communication is enabled through the common dimensions and capacities of the human structure” (p. 131). By sensing through the body and moving, a baby learns how to respond to its environment and others. The body becomes a vessel for thoughts, feelings, and expression, which can then be communicated through this same medium. Hackney (2002) recognized that, “this is obviously an enormous leap—from the personal body level to the global world” (p. 15). However, writings by developmental psychologists, Olsen (1998), and Cohen (1993) theorize about this relationship.

In regards to the patterns of connectivity, Salemi (2009) begins to bring evidence to how being immersed in the patterns of connectivity supports relationships within the self and with others. Through an artistic inquiry, Salemi taught the patterns of connectivity to clients with brain injuries. This is one of the few pieces of literature on the patterns of connectivity besides Hackney (2002) and Bartenieff (1980). Salemi questioned her participants about the value of learning the patterns of connectivity. She quoted her participants who said that not only are individuals constantly in relationship with others but “if you aren’t comfortable in your own skin and comfortable with yourself, then you won’t know how to act toward others and express yourself” (p. 70). In discussing her own experience of teaching the patterns of connectivity,
Salemi said, “I experience myself bringing internal kinetic chains of connection to external expression through movement” (p. 75). Not only did the participants in the study feel the patterns of connectivity supported relationship with others, but Salemi also sensed this through her own experience of connecting with her clients while teaching.

Within DMT and counseling, creating a therapeutic relationship is essential. Siegel (1999) described how relationships are not only core to our development but also affect the brain. Through the initial relationship with a primary caregiver, attachments are formed. These interactions become engrained in the brain and cause all future relationships to be based off of these early interactions (Siegel, 1999). However, psychotherapy can help change engrained patterns of self-organization through therapeutic relationships. Salemi (2009) speculated that “the developmental structure of the Patterns can serve as a template for intrapersonal investigation that may allow the dance/movement therapist to connect more deeply to herself and to address neuromuscular connections in her body-mind. This may allow for more presence to self and therefore more presence to another, such as a client” (p. 99). If being aware of one’s own body is important in connecting with others, then the conclusion can be drawn that it is important for a therapist to connect to his or her body before entering into influential therapeutic relationships.

*Developmental patterns of total body connectivity.* Hackney (2002) named developmental patterns of total body connectivity as fundamental to movement. Since Bartenieff was steeped with knowledge of physical development through her studies as a physical therapist, Bartenieff included developmental concepts in her movement classes. However, this was not her primary focus in classes. Hackney was influenced to identify developmental patterns through her work with Bartenieff and her colleague, Cohen.
Cohen “trained with Bartenieff in the early seventies and then went on to develop her modality of Body-Mind Centering (BMC), which reflected her interests in health and healing” (Salemi, 2009, p. 14). According to the School for Body-Mind Centering (2001):

[BMC] is an experiential study based on the embodiment and application of anatomical, physiological, psychophysical, and developmental principles, utilizing movement, touch voice, and mind. This study leads to an understanding of how the mind is expressed through the body and the body through the mind.

Cohen was interested in movement development: both ontogenetic, the infantile movement development and phylogenetic, “the evolutionary progression through the animal kingdom” (Cohen, 1993, p. 4). According to Olsen (1998), “the developmental progression of the child parallels the evolutionary development of the species” (p. 131). In evolutionary terms, organisms came from water and over time gradually came to vertical uprightness and locomotion on land. Physiologically humans are “mandated to fulfill certain movement tasks in the first years of life” (Hackney, 2002, p. 42). These early movement tasks are the same tasks organisms achieved in the process of evolving to uprightness and are hard-wired into the human system. Both in the past and present, these tasks, “early primitive postural reflexes, righting reactions, and equilibrium responses,” help humans survive (Hackney, p. 42). Through righting reactions, the infant learns to keep its head upright and vertical. This is seen in our “impulse to lift our head when we bend over or [we] fall” (Olsen, p. 134). Righting reactions protect one of our most important assets, the brain. This is a clear example of how human survival underlies our movement development.

Development not only becomes about a process that has evolved to help humans survive but a way to fulfill the higher functioning, expression, and embodied existence of human beings.
(Hackney, 2002). These basic patterns “set up pathways of muscle sequencing. These become integrated into larger neurological patterns of movement through which the human being organizes the total body, providing neuromuscular coordination, ‘connectedness,’ and a sense of basic comfort and being ‘at home’ on earth in an embodied way” (Hackney, 2002, p. 42). Cohen (1993) also stated that the first year of development is crucial:

This is when the perceptual process (the way one sees) and the motor process (the way one moves or acts in the world) is established. This is the baseline for how you will be processing activity, either in receiving or expressing, throughout your life…It helps set up a broader baseline, offering more choices in not only how to see events or problems, but how to act on them. (p. 99)

Beginning in the womb and continuing after birth, the vestibular nerve registers personal movement and movements that are happening in the environment. At the same time, this allows the baby to perceive. From the beginning, movement is involved in how the organism sees and organizes itself.

Movement development and development in general is not a linear progression. Olsen (1998) stated, “Reflexes and developmental patterns progress in overlapping sequence. As one pattern is evolving, the neuromuscular coordination is preparing for the next” (p. 131). Cohen (1993), Hackney (2002), and Bartenieff (1980) also supported this statement. Within developmental psychology the view of development as cyclical is also shared. Developmental psychologists, such as Freud, Erikson, Winnicott, and Piaget, identified various phases of development that are cyclical. During these developmental stages, certain behavioral tasks must be explored and accomplished. Likewise, in movement development, “each pattern challenges the individual in new physical ways and makes possible additional development in psychological
process as well” (Hackney, 2002, p. 19). Hackney sees the progression of development heading toward integration, “a stage of meaning and purpose in life” (p. 13). On the journey toward integration, each pattern of connectivity informs the whole being through physicality, mental processes, and the psyche.

When development is disrupted, both the mind and body can be affected through the formation of maladaptive patterns used to cope with these disturbances. Cohen (1993) stated, “any skipping, interrupting, or failing to complete a stage of development can lead to alignment/movement problems, imbalances within the body systems, and problems in perception, sequencing, organization, memory, and creativity” (p. 5). While the body is affected, problems in the mind can occur concurrently. In addition, when an individual experiences trauma, he or she may regress to previous stages of development (Siegel, 1999). However, re-patterning offers a chance to revisit inefficient movement patterns developed or acquired as “that pathway isn’t closed—its potential remains for future development” (Cohen, 1993, p. 100). For this reason, re-patterning can support motor functioning and psychophysical health (Hackney, 2002, pp. 19-20).

When re-patterning, practitioners must keep in mind that the body holds emotion and implicit memories of its development. Through her work coaching neurological patterns of development, Cohen (1993) found: “As an adult, one’s compensatory patterns are also deeply woven into the emotional and thinking patterns, and need to be acknowledged and validated” (p. 100). If there were disturbances in development, these memories may resurface and/or re-traumatize the individual. Thus re-patterning can be a difficult journey that requires support from knowledgeable and capable clinicians.
In the following section, each pattern of total body connectivity will be described with supportive information from Cohen’s 14 basic neurological patterns. This terminology may seem confusing and leave readers wondering the difference between them; however, the terms go hand in hand. Hackney (2002) referred to the basic neurological patterns as infantile movement exploration and shortened the term to developmental patterns. Hackney condensed the basic neurological patterns to six: breath, core-distal, head-tail, upper-lower, body-half, and cross-lateral. The term patterns of total body connectivity is used to refer to the use of adult movement to revisit developmental movement patterns (Hackney, pp. 42-43). With this in mind, each pattern of connectivity and associations to psychophysical health will be defined.

**Breath.** Breath is the first pattern of total body connectivity identified by Hackney (2002). Likewise, Cohen (1993) termed the first basic neurological pattern as breath but split this into two aspects, cellular breath and external respiration. Cellular breathing begins within the womb and “establishes the integrity of each cell and its relationship to its internal fluid (sea) environment” (Cohen, p. 17). External respiration is the exchange of gases. Oxygen comes into the body, and carbon dioxide is expelled (Olsen, 1998). Respiration is a function that can be performed voluntarily or involuntarily; however, at the core of this pattern of connectivity, “breathing is the key to life, movement, and rhythm” (Hackney, 2002, p. 51). According to Calais-Germain (2005), “breathing is the movement that is performed in respiration” (p. 13). This movement involves the respiratory organs and muscles but travels to the entire body through the head, neck, diaphragm, abdomen, pelvic floor, and extremities. For this reason, breath offers the first experience of movement, three-dimensional internal space, and “lays the foundation for all the other succeeding patterns. Wherever the breathing is blocked in the body, future patterns will be blocked” (Cohen, p. 17).
Disturbances or changing in the breath rhythm are possible for various reasons. When emotions arise, breath and the body are both affected. According to Hackney (2002), disturbances or shallow breath can result from: birth defects, accidents, emotions, movement habits, addictions, environmental stresses, and misconceptions about breath. Berrol (1992) commented on the connection between emotion and the body and reflected that muscles loosen with sadness and become tighter with anger. Calais-Germain (2005) also identified that breathing patterns can change with emotion. A clear example of this is when a person becomes anxious. The autonomic nervous system activates, causing the respiration rate to increase.

While breath can be disrupted by various factors, bringing awareness to the breath has beneficial therapeutic value and the potential to heal. Breath has been used in Eastern cultures for ages to, “develop a focus and mindfulness” (Levine & Macnaughton, 2004, p. 369) and cathartically through “hyperventilation as a way of generating transformational experiences, as in Kundalini or other yogas” (Levine & Macnaughton, p. 369). Hackney (2002) agreed that by bringing awareness to the stabilizing rhythm of breath a “sense of being in the Now moment” can be achieved (p. 53). Within the present moment, relaxation, enlivening or mobilizing the body and mind, self-regulation, and healing can occur. Through an experiment, Blairy, Chapelle, and Philippot (2002) found that manipulating breathing patterns could produce emotion. From this, conclusions were made that self regulation of emotions can be accessed by changing breathing patterns (Blairy, Chapelle, & Philippot, 2002). Furthermore, in the medical field of psychoimmunology, discoveries are being made about how imagining and bringing breath to injured areas of the body can heal. Hackney (2002) explained, “Healing is accelerated when oxygen reaches an area that has been injured. It brings new life to those cells” (p. 53).
Breath can facilitate connection between people. Salemi (2009) offered evidence of how breath allowed her to empathize with her clients who had brain injuries:

The way I relate to the floor while connecting with my Breath Pattern reminds me of the perseverance and softening I witnessed in my clients as they experimented with different aspects of the Patterns. I knew many of them were in pain and attempted to do the movements anyhow. (p. 72)

Focusing on her own breath allowed Salemi to connect to the floor and empathize with her clients who had brain injuries.

Literature about breath or respiration and its use as an intervention in psychotherapy is plentiful. This author speculates literature on breath and psychotherapy can be found more readily for two reasons. First, breath happens unconsciously and is a rhythm people are accustomed to within the human body. Over the years and through meditation practices, the fluctuations of breathing patterns became linked to arousal; therefore, the benefits of bringing awareness to breath became known. Secondly, unlike other patterns of connectivity, breath has an identifiable name that needs little explanation for the lay person to understand. Other patterns are written about using various names. For example, the second developmental pattern is termed core-distal by Hackney (2002) and naval radiation by Cohen (1993). In each of the following patterns of connectivity, the anatomy of kinetic chains becomes more involved and will not be included within this literature review.

Core-distal. As identified by Hackney (2002), core-distal is the second pattern of total body connectivity. Cohen (1993) termed this naval radiation. Core-distal patterning begins developing through early reflexes in the womb and continues to develop after birth. In the womb, the baby is nourished through the umbilical cord, which is attached at the naval. Hackney stated
that the core-distal connectivity is a reminder of “when the life support system poured directly into your body at your naval” (p. 69). In movement, the task of finding this patterning and neuromuscular coordination is to establish, “the navel as a center through which all the extremities relate individually and to each other” (Cohen, p. 17). Hackney recalled that Bartenieff facilitated the core-distal connectivity by beginning class with an exploration of closing and opening, condensing and expanding, or concaving and convexing. These tasks stimulated core support from which movement can expand into the limbs. While Hackney identified the stability accessible through core support as a part of this connectivity, she stressed that exploring this connectivity is about mobility.

Hackney (2002) discussed the physical development of the core-distal connectivity but also its association to psychological development. On a physical level, Hackney stated that in finding the core-distal connectivity:

I need to know that my whole body is connected through my central core and that I am supported there. I need to understand bodily that I will not fall apart and my limbs will not fly away, that all parts move in relationship to each other, that they are neuromuscularly coordinated. (p. 67)

According to Hackney, the core-distal connectivity is “a movement metaphor for an individual’s ability to be both receptive and expressive—that is to take in, to receive, and to express—pour out from within” (Hackney, p. 82). Through this organization of movement, clients can begin to understand polarities and the relationship between self and other, “that one can extend into relationship with the world without falling apart” (Hackney, p. 81). Core support can be an assessment of and/or inroad to the client’s approach to his or her environment. Strengthening core support can provide increased motivation, purpose in life, confidence, and self-esteem.
In addition, the core-distal connectivity is at the core of the fight and flight response in that the limbs are able to organize to the core and respond to threatening situations.

**Head-tail.** Head-tail is the third pattern of connectivity, which involves spinal support for achieving verticality and maintaining flexibility for fluid mobility (Hackney, 2002). Head-tail patterning begins within the womb and during birthing when “our spine, guided by a yield and push from the feet, pushes down the birth canal and then does a spiraling reach out to enter the world” (Hackney, p. 86). This pattern of connectivity is where Hackney began to combine stages of neurological patterns of development identified by Cohen (1993). According to Cohen, there are several reflexes, oral rooting, neck mobility, head positive supporting, head negative supporting, gallant, abdominal and anal rooting reflexes, that contribute to the development of spinal movement. Oral rooting is the first reflex to begin spinal movement by rotating the spine to root toward the mother’s breast. According to Cohen, “the mouth is also the first extremity to reach, grasp, say ‘yes’ and ‘no’, and hold on and let go. It’s the first extremity that will move into space” (p. 106). These early reflexes and spinal movements “begin to establish movement in all the planes of our three-dimensional world” (Hackney, p. 86) and “expresses our postural tone of attention” (Cohen, p. 142) as the baby begins to curiously explore the environment.

In realizing connectivity between the head and tail, movers must understand this involves, “an active relationship between the skull, the 24 vertebrae, and the sacrum-coccyx” (Hackney, 2002, p. 103). Often times, movement suggests that the spine is a straight stiff back bone; however, this is not the case. The spine is made up of three different sections, cervical, thoracic, and lumbar. Each section of the spine has curvature, which makes it, “more resilient and actually stronger, like a spring which takes a weight and cushions it” (Hackney, p. 108). Movement capabilities, structure of the vertebrae, muscular attachments, and functions differ in
each section of the spine. Holding patterns can occur in different parts of the spine and result in losing, “the fluid nature of the movement and, hence, the possibilities that are available at any one moment” (Hackney, p. 89).

The head-tail connectivity is closely related to the core and “allows you to sense yourself as an individual, with both fluidity and solid support” (Hackney, 2002, p. 108). According to Hackney, “our culture places particular value on ‘the individual’ and has intuited that a sense of ‘individual’ resides at the spinal level of development in the human being” (p. 85). Spinal alignment is associated with body attitude and how one is perceived by others. When an individual is hunched, protrudes his or her head, and/or tucks the tail bone under, this visual provides a generalized representation of the person’s characteristics. While these first impressions may be false, the idea of how the spine supports a sense of self is implied. Hackney postulated:

These holding patterns are there in an individual for a reason. That reason could be physiological or psychological, genetic or environment, but whatever the original cause, making changes in spinal patterning will lead to profound changes in the individual and his/her relationship to the world. (p. 89)

Head-tail connectivity is not action-oriented but allows the individual to be curious, “explore, and follow their own creative impulses” (Hackney, p. 108). For some clients entering therapy, building a sense of self is vital to his or her well being.

Before moving onto the next pattern of connectivity, it is important to recognize that yield-push and reach-pull capacities begin with the head-tail pattern of connectivity. In considering the words push and pull, as is commonly the terminology in physical therapy literature, “these two words both seem to convey strength, directness, and possible sustainment”
Cohen influenced Hackney to bring the words yield and reach into the equation. While Cohen (1993) distinguished six different yield-push and reach-pull patterns, Hackney does not separate these tasks. Instead, Hackney established the basis of this phrasing within the head-tail connectivity and references its importance and application in the following patterns of connectivity.

Yielding allows bonding, connection, and support from the earth, which informs pushing. Once yielding is achieved, an individual can compress the body and push. Through the patterning of yielding and pushing, the individual is able to receive proprioceptive feedback from the earth about his or her relationship to strength and gravity. Reach and pull patterns allow the individual to connect, “with the world beyond one’s own kinesphere” (Hackney, 2002, p. 90). Through reach and pull patterns, movers are able to use space effectively. As a whole phrase, yield and push precede reach and pull. As mentioned previously, “development is not totally linear” (Hackney, p. 90). While this yield-push and reach-pull patterning is present in the womb and the birthing process, it becomes important in the head-tail pattern of connectivity as verticality is beginning to be achieved through standing.

Hackney (2002) associated yield-push and reach-pull patterns clearly to the development of the individual. Yielding and pushing allows the power of individuation and differentiating self from other (Hackney, p. 90). Reach and pull begins the focus of goal orientation. Hackney claimed:

Phrasing from a yield and push to a reach and pull is effective for getting things done in the world and for offering your feelings out into world and bringing responses back into yourself. When you phrase movement in this way, you are both powering the movement and being empowered by it. The phrase is complete and satisfying, as opposed to feeling
the environment is pulling you around or that you can never accomplish anything. (p. 119)

In this way, yielding, pushing, reaching, and pulling provides efficiency and meaning to movement while providing a give-and-take relationship between an individual and his or her environment.

Upper-lower. Upper-lower is the fourth pattern of connectivity. Cohen (1993) termed this homologous movement, when humans develop “symmetrical movement such as push-ups, jumping with both feet, establish the sagittal plane, differentiate the upper part of our bodies from the lower part of our bodies, and gain the ability to act” (p. 5). Unlike the previous patterns of connectivity, the upper-lower patterning begins to be more about action, “work, practice, and accomplishment” (Hackney, 2002, p. 111). The brain begins to send messages to the arm causing both arms to move and the body to respond. The same message and response happens with the legs (Hackney, p. 113). This stage of movement development requires application of yield-push and reach-pull patterning, as discussed within the head-tail connectivity. In addition, movers begin to understand how parts of the body can be differentiated and work together to achieve tasks.

Hackney (2002) placed value in the development of homologous movement as it underlies upper and lower body functioning; however, when working and theorizing about the upper-lower connectivity, she strayed from purely homologous movement. Hackney was motivated by bringing clarity to Bartenieff’s work. While Bartenieff’s work was influenced by developmental progression of movements, this was not the main focus of her movement classes. When working with the upper and lower body, Bartenieff, and thus Hackney, did not stay one hundred percent true to homologous movement in teaching. Instead, according to Hackney,
Bartenieff emphasized, “gaining clear articulation of the lower and upper while confirming basic connections (such as sitzbones-heel or scapula-elbow-hand) which could lead one to clear weight shift, and increased range at global proximal joints” (p. 113). Bartenieff saw the relationship between the upper and lower body as one of the main challenges in movement to our society, as discussed below.

Within the lower body, Bartenieff identified a pattern she saw in movers, which she termed the dead seven inches. This area is located around the pelvis and contains: the center of gravity, femoral joints, lowest part of the spine, muscles that regulate postural alignment, sexual and reproductive organs, and digestive organs (Hackney, 2002, pp. 121-122). Attuning to and assessing the center of gravity in the body provides power and centering. Femoral joint articulation provides mobility. Sensation, connection, and relationship are hindered when these important seven inches are held and/or not responsive.

Like in the lower body, Hackney (2002) identified two areas of five to seven inches that are commonly held. The first area includes the area between the head and neck connection, clavicle, top of the scapula, and articulation of the humerus in the glenohumeral joint. Hackney suggested that this holding pattern may occur from repetitious functional movement like sitting at desks and/or the hindered “expression of psychophysical being in the world” (p. 146). The second five to seven inches that are commonly held is in the mid-thoracic area, including “the mid and lower parts of the scapula and descending to the first lumbar vertebrae” (Hackney, p. 146). While defined by bony landmarks, this area contains the heart, lungs, and muscular connection between the upper and lower body at the twelfth thoracic vertebrae. Holding can be seen in either a convexing or concaving shape in this area. From working with clients, Hackney found that this holding pattern often correlates to feelings of being, “resigned to the situation I’m
in...or invulnerability” (p. 146). Wherever tension may be held in either the upper or lower body, sensation is lost negatively affecting full functioning of the body.

The movement tasks within the upper-lower connectivity (differentiating between tasks of various body parts, utilizing yield-push, reach-pull patterning, and understanding the relationship between stability and mobility) are challenging; however, gaining these skills provides support for an individual and his or her relationship to the world. Hackney (2002) stated that the upper-lower connectivity allows one:

To support ourselves; to stand on our own two feet; to push away and set boundaries; to claim our own personal power; to activate our lower bodies to move forward; to activate our upper bodies to connect to the others and reach out in our world interactively, without losing our connection with the earth. (p. 162)

From being able to reach toward goals to being able to get away from unsafe situations, the upper-lower connectivity provides rich information for an individual as he or she begins locomotion into the world while maintaining inner-connectivity.

Body-half. Body-half is the fifth pattern of connectivity and involves differentiation between the two sides. Homolateral movement relates to the body-half connectivity as it is the development of movement where “the arm and leg on the same side of the body are flexing or extending together” (Cohen, 1993, p. 149). Asymmetrical tonic neck reflex and hand to mouth reflex underlie homolateral movement (Cohen, p. 149). From a physical perspective, the goal of body-half patterning is to bring clarity to the two separate sides of the body allowing different functions. Mobility and stability are important in the development of body-half patterning as movers learn to stabilize with one side of the body and mobilize with the other.
Hackney (2002) related the body-half connectivity to the ability to evaluate and clarify. Within this developmental stage, the world begins to be perceived in polarities. This can cause conflict within the individual as opposites are evaluated, but polarities can also allow preferences to be formed. “Without this stage, it is hard for an individual to know where s/he stands on an issue” (Hackney, p. 165). In addition, movement exploration of this connectivity with the use of imagery can supply clients with opportunities to explore different parts of his or her self. This may correlate nicely with the counseling framework of internal family systems. In this theoretical framework of counseling, the individual is made up of different parts that are brought into relationship with one another (Twombly & Schwartz, 2008).

*Cross-lateral.* Exploring the cross-lateral connectivity is the final stage of differentiation within this system. This may also be referred to as contralateral movement in physical therapy and other movement literature. Cross-lateral connectivity is achieved by creating connection that passes through one arm, the core, and into the opposite leg. Adult walking is one example of movement that uses the cross-lateral connectivity in this way. With this pattern of connectivity, “we cross the midline of the body and integrate the two halves of the brain, as they engage simultaneously” (Cohen, 1993, p. 152). This connectivity also involves mastering gradated rotation of the arms and legs and allowing this spiraling movement to come from the core.

Cross-lateral connectivity implies more than a mere connection between opposite quadrants of the body. It has huge implications for “the integration of all three planes and spiralic movement” (Cohen, 1993, p. 152). Laban worked extensively on a concept that he called space harmony, which began by looking at the capabilities of movement potential in the human body and space. From this theory, Laban identified a term called diagonals. When a mover reaches into space on the diagonal, he or she utilizes three equal spatial pulls between the
vertical, horizontal, and sagittal dimensions. Diagonals provide stability through countertension and the fullest potential for mobility. Interestingly, in Bartenieff’s studies of Proprioceptive Neuromuscular Facilitation, the same spatial patterns Laban identified outwardly in space pertaining to diagonals became visible to Bartenieff within the human body: “we notice that muscles work best in diagonal or spirals. This is because very few muscle fibers are purely dimensional” (Hackney, 2002, p.185). The psoas is one such muscle that has three-dimensional pulls and is important to the exploration of the cross-lateral connectivity.

Cross-lateral connection moves humans into more complex ways of moving and thinking. In terms of the psychophysical development of the individual, this “aids in the ability to conceptualize complex interrelationships and think about how phenomena are connected in multifaceted ways” (Hackney, 2002, p. 198). With this knowledge at an individual’s disposal, adaptable ways of interacting and responding to the environment are possible.

Integration. Integration within the body allows time to return to all of the patterns of connectivity and remember what is salient about them. Each pattern of connectivity supports the others, and each is unique in what the bodily connection has to offer movement. Integrating can be seen as a relational function that brings all patterns of connectivity together allowing for fuller mobility. It does not mean that a mover will necessarily use them all at the same time. Integration allows an understanding of “which skills will best serve in a particular situation and how to phrase what we know so that it will enrich us” (Hackney, 2002, p. 201). By utilizing time for integration, the body as a whole complex organism with connections can be appreciated.

Hackney (2002) also defined this stage as a time to integrate “bodily knowing into life” (p. 203). By returning to the goal of Bartenieff Fundamentals, to create a lively interplay between inner and outer connectivity, movers can reflect on how this goal has or has not been
accomplished, the relationship to inner connectivity, and how this contributes to authentic expression in the world. According to Hackney, “as the movement patterns are being established, each individual is at the same time forming his/her unique expressive interaction with the world…and, therefore, that interaction and its ‘meaning’ is included within the body patterning” (p. 203). Through the differentiation of the patterns of connectivity, a sense of a whole person listening to his or herself and interacting with the world begins to form. Each individual is different. As such, each individual must define and honor his or her own meaning and experience to this process and movement.

**Mind-Body Connection**

The patterns of total body connectivity were not only exercises that can be done but have a deeper meaning to the mind-body connection. At the time of Bartenieff’s work, Hackney (2002) explained:

> Our culture had not yet rediscovered movement and the body (no one was jogging or dancing for health reasons). Most people who considered themselves intelligent identified that aspect of themselves as residing in the head. There was a definite mind-body split in the collective, and that was coupled with a highly goal-oriented society. (p. 6)

For this reason, the work Bartenieff did and Hackney later clarified was truly revolutionary. One of Bartenieff’s students claimed:

> Irmgard thought in global terms, holistic terms. She thought mind, body, and action are one, that the individual is one with the culture, and function with expression, space with energy, art with work, with the environment, with religion. When you spent a lot of time around her you could get pretty confused and have to go sort things out by yourself, but you could never again see the universe as a collection of isolated pieces. (Hackney, p. 8)
Bartenieff believed in a holistic approach to movement that incorporated both the mind and body, which Hackney also carried over to her work with the patterns of connectivity. In addition, the concept that the mind and body are connected speaks to the validity and effectiveness of DMT. Since the body and mind are connected, working with one will create change in both.

While not always accepted in Western health care, the interconnectedness of the mind and body has a long history. Bartenieff and Hackney were not the first to come upon these conclusions. In a review of literature on the neurophysiologic basis of the mind-body connection, Berrol (1992) explained, “Hippocrates, the father of modern medicine, acknowledged the mind-body connection, more than 2000 years ago. He contended that the balance of the four body fluids—blood, phlegm, yellow bile and black bile were responsible for normal moods” (p. 23). Hippocrates’ theory has been outdated, but understanding the link between the mind and body continues to intrigue scholars. The overarching subject matter, how the body and mind are interconnected and its role in health and perception, remains a topic in literature.

A clear example of the interconnection between the mind and body is found in the intake and processing of information from the environment. Homann (2010) claimed:

The brain is the organ that orchestrates our interactions with the world around us. It is responsible for taking in massive amounts of simultaneous sensory information, sorting out and interpreting what we are experiencing based on past associations, and then coordinating our response. This dynamic interchange between body and brain is ongoing, even in stillness, and the functioning of the mind is communicated and experienced through the body. (p. 81)
Through the body, sensory information enters the system through the skin, ears, nose, mouth, and/or eyes. Information is relayed to the brain, which processes the information and communicates with the body on how to respond.

With updated technology, information about intricacies of brain functioning have further supported the mind-body connection philosophers and psychologists have observed for years. Berrol (1992) and Siegel (1999) discussed the anatomy and functioning of the brain in connection to the body, which has led to an understanding of the complex interconnections between the two. The brain is split into many different parts: right and left hemispheres, lower parts which humans have in common with animals, and upper regions associated with higher level functioning. According to Siegel, integration of information happens vertically, through interaction of lower functions of the brain with higher functions, dorsal ventrally, forward and back, and laterally, side to side. The body is involved in the integration process as evidenced by rapid eye movements during cortical consolidation and lateral integration.

The complexity of the brain and the connection to the body is only beginning to be understood. When brain injuries occur, the injury can significantly affect the functioning of the entirety of an individual; however, how the body, mind, and psyche are affected cannot always be predicted. Berrol (1992) stated:

Function is thus dependent upon neural communication between and among the various areas and levels of the entire brain. As such, disruption of a single area of the brain affects multiple behaviors. Consequently, when any neuropathological event occurs, corollary disruption is manifested in motoric as well as behavioral responses, i.e. both in soma and psyche. (p. 21)
As evidenced in brain injuries, disturbances to the brain affect the entirety of an individual. The mind and body are not only inseparable but complexly interrelated.

The body also plays an integral role in the development of the mind and perception. Jean Piaget, a developmental psychologist, found that not only did this relationship between the mind and body exist, but the body and movement play a role in the development of perception. This belief is also held within Cohen’s BMC program (Cohen, 1993). Through observations of himself and his daughter at one year and four months old, Piaget discovered that the body became an object for understanding the environment. Piaget showed a golden chain to his daughter, who was fascinated with the object. Then he placed the chain through a slit in a container. His daughter could not verbalize her desire for the object; however, she opened and closed her mouth. This movement signified that she wanted the slit to increase in size, so she could obtain the object. Through her body and movement, Piaget’s daughter began to interpret and try to manipulate her environment (Voneche, 2008).

The role that sensory motor functions and the body play in the development of perception is widely accepted. This has been supported by information about how the vestibular nerve is the first to myelinate and plays a role in integrating sensory input through movement. These sensory motor functions are complex:

- Perception is not the mere registration of external stimuli, but the result of the activity of the eye-movements in vision, the structuring of tones, pitches, and so forth in audition, and the organization of smells and odors, as well as the movements needed for kinesthetic sensation, not to speak of the inner sensations of proprioception, which are also coordinated in systems of action. (Voneche, 2008, p. 81)

Eye movements are one of the obvious examples of how movement is used to help perceive the environment. By imitating shapes and forms in the environment, eye movements internalize the
representation of the environment through motoric action. Hannaford (2005) explained that these sensory-motor activities lay down nerve networks in our minds that support higher brain functioning such as learning and creativity later in life.

**DMT and the Mind-Body Connection**

Through the research stated above, the evidence for the mind-body connection becomes clear; however, it is also important to understand how DMT works to create wholeness by connecting the mind and body. One of the unique and healing aspects of DMT is it allows participants to build a relationship with and reconnect to his or her body (Goodill, 2005). Mills and Daniluk (2002) provided evidence through qualitative research that DMT is effective for this reason. Mills and Daniluk conducted unstructured interviews with five women, who had participated in DMT within the previous one to five years, about their experience of DMT and personal changes that occurred. From transcripts of the interviews, these researchers extracted six common themes that assisted the women in healing. One of the themes that emerged was “reconnection to their bodies” (Mills and Daniluk, p. 79). One woman stated, “I knew somehow my body would tell me the truth. The surprise was how deeply my body felt the things that happened to me…for the first time, I understood what body memory means” (Mills & Daniluk, p. 80). While this study concluded that DMT helps clients reconnect to their bodies, more research is needed. Mills and Daniluk (2002) did not include what DMT styles or interventions facilitated reconnection to the body as part of the study and used a small sample size.

Research has shown that by working with the body through DMT changes happen within the mind. Jeong et al. (2005) proved that DMT can cause chemical changes within the brain. Using a “high performance liquid chromatography with electrochemical detection at 0.65 V” (Jeong et al., p. 4), 75 adolescent females with mild depression in Korea were tested before and after 12 weeks of DMT sessions. After the DMT sessions were complete, the researchers found
“increased plasma serotonin concentration,” which affected how the participants felt. The results were significantly greater than the control group, who did not participate in DMT sessions. This showed that working through the body actually created chemical changes in the brain.

In addition, recent research on the vagus nerve and mirror neurons not only illuminates the connection between the mind and body but reveals implications for the use of DMT as an effective mind-body intervention. Homann (2010) looked at how specific applications of DMT affect clients’ responses to stress by recognizing and utilizing the functioning of the vagus nerve. As a part of the autonomic nervous system and main controller of the parasympathetic nervous system, the vagus nerve controls functioning of the lungs, bladder, and bowels while at rest. Originating in the medulla, the vagus nerve “exits through the brain stem, then travels down through the spine to connect to the throat, heart, lungs, and organs including the stomach and intestine” (Homann, p. 81). Through nerve endings, communication is sent to and from the body. New research shows that early attachments in infancy influence the vagal functioning and coping mechanisms to stress. When a caregiver applies touch and support to the spine and head, the vagus nerve is encouraged to function properly. With disorganized attachment and improper functioning of the vagus nerve, an individual may have difficulty feeling safe and comfortable in their surroundings. Through body awareness techniques, slow breath rate, and engaging with someone perceived to be safe, DMT can help clients learn how to cope in emotionally stressful situations by “simultaneously stimulating and soothing…the nervous system as regulated by the vagus nerve” (Homann, p. 82).

In addition, mirror neurons show how the observation of movement stimulates a response in the body and mind. As DMT utilizes movement interventions, it can activate this same response. Johnson (2008) explained that “a number of experiments indicate that people weakly activate parts of the sensory-motor cortex when they observe others performing motor tasks or
imagine themselves doing the tasks” (p. 24). Both the brain and body are activated in observing movement. Those that partake in DMT sessions benefit from observing and participating in movement. Homann (2010) explained:

Moving together creates a powerful relational experience and often stimulates a deep subjective feeling of connection. Given what we are learning about mirror neurons and the neurological foundations of intersubjectivity, it makes sense that this happens. Seeing the movement of another person stimulates his or her own neurological state” (p. 96).

In DMT sessions, participants are activating their brain and body in new ways through mirror neurons. In addition, Berrol (1992) explained how the use of intentional movement in DMT activates neural firings in new and/or different ways.

**Systems/Embodiment Theory**

This literature provides evidence for the connection between the mind and body and thus the effectiveness of working with the body in DMT. However, recent trends in psychological literature are combining concepts from developmental sciences and psychoanalysis creating embodiment theory. Embodiment theory entails a comprehensive explanation of human development by integrating the complex systems in which the mind and body reside (Thelen, 2000). Developmental science proposes that, “the individual is viewed as an active, intentional part of an integrated complex, dynamic, and adaptive person-environment system, and that individuals develop in that context from the fetal period until death” (Susman, 2001, p. 166). Piaget’s developmental theory about how perception derives from the body has been incorporated into embodiment theory.

“Embodiment refers to bodily phenomena, in which the body as a living organism, its expressions, its movement, and interaction with the environment play central roles in the explanation of perception, cognition, affect, attitudes, behavior, and their interrelations”
(Fischman & Koch, 2011, p. 4). Klin and Jones (2007) supported this by looking at autism and how affect develops from the responses of the caregiver. These theorists are in agreement that the, “mind emerges out of gesture” (Klin & Jones, p. 42), but “the meaning of the mind is rooted in the reaction of the other to the child” (Klin & Jones, p. 42). In this way, development is based on interactions with the environment.

**DMT and Systems/Embodiment Theory**

DMT is one approach that can be applicable to working with an individual within their systems. Goodill (2005) described systems theory as viewing “groups, families, biological, social and individual processes as interacting networks, wholes being more than the sum of parts; each ‘whole’ with active homeostasis (or interaction between equilibrium and disequilibrium); with rules, permeable boundaries and relationships with other systems” (p. 20). Goodill went on to describe how DMT has become an effective treatment for working holistically with individuals, particularly those with physical illnesses such as cancer and brain injuries. Systems theory underlies the bio/psycho/social model used in mental health, which takes into consideration the importance and interrelationship between biological, psychological, and social aspects of an individual. Both the systems theory and embodiment theory are similar in that they require the complexity of interrelating parts of an individual to be considered in conceptualizing, assessing, and treating mental health disorders (Goodill, p. 20).

In addition, Fischman and Koch (2011) argued that dance/movement therapists should embrace embodiment and enactive mind theories as they emphasize the importance of experience and movement. By actively participating in the therapeutic relationship through movement, patients “become aware of their personal behavioral patterns at the same time they recognize new possibilities of being with, enlarging their relational repertoire” (Fischman &
Koch, p. 8). DMT works by emphasizing the process and experience of moving and relationship. Change and/or healing do not occur in one part of an individual but through relationship.

As seen within the previously reviewed literature, the mind-body connection, nonlinear nature of development, and patterns of connectivity speak to the importance of approaching the individual holistically. Instead of working one part of the body against another, movement must be approached through a systems theory perspective where the integrity of connections supports the entire organism within their system. Bartenieff (1980) and Hackney (2002) described that movement takes on multiple levels of meaning simultaneously. Movement is not just about assessing body, effort, shape, and space, but it informs an individual’s interaction with and being in the world. Thus the interweaving of the mind, body, and environment cannot be denied, and it can be used to support psychological changes through the body.

While re-patterning can be based solely in a physical perspective, implications can be made for their therapeutic use in DMT. Cohen (1993) argued, “Aligning inner cellular awareness and movement with outer awareness and movement through space within the context of the developmental process can facilitate the evolution of our consciousness and alleviate body-mind problems at their root” (p. 5). In addition, Hackney (2002) stated:

The main object of this material is to suggest additional modes of perceiving yourself and the world around you, using your live body totally—body/mind/feeling—as a key to that perception. The heart of that ‘liveness’ is movement and, therefore, it is the movement itself that we have studied. How your body functions in movement—Body/Effort Shape—and what that means to your perceptions and expressions. (p. 3)

By re-patterning movement, a client not only changes his or her experience with the body but also the mind, perception, and interactions with the environment. For this reason, change created
at a bodily level changes the entire system in which an individual resides (Bartenieff, 1980; Cohen, 1993; Goodill, 2005; Hackney, 2002; Laban, 1988).

**Research Connection**

The research designed for this thesis project aimed to answer the questions: What is the experience of a novice dance/movement therapist with the patterns of total body connectivity, and how do the patterns of connectivity impact her life? Literature reviewed on the patterns of total body connectivity suggests that through immersion and exploration of the connectivities at a physical level change would also occur within the mind and interactions with the world. Hackney (2002) claimed that exploring the patterns of connectivity can change perceptions and expression and linked phases of physical and psychological development. Literature about the mind-body connection showed that by working through the body changes occur in the brain chemically and by activating new neural networks (Berrol, 1992; Cohen, 1993; Hannaford, 2005; Jeong et al., 2005; Siegel, 1999). Human development can be seen as an ongoing process that involves the mind, body, movement, and interactions in the world (Johnson, 2008; Klin & Jones, 2007; Siegel, 1999; Susman, 2001; Thelen, 2000; Voneche, 2008). The systems in which an individual resides are all connected and reciprocally affected by action. DMT has been shown to be effective in creating change at a neurological and physical level helping to ameliorate symptoms of mental disorders, which speaks to the power of working with the body and movement. For this reason, the patterns of total body connectivity may be a tool and resource for dance/movement therapists. By re-patterning developmental movements, all systems may be affected.

Despite the exciting implications for this type of work for personal growth and change, researching systems and experiences is challenging. For this reason, literature tends to be
theoretically based. Over the years, research methodologies have developed that can be used to research the complexities and interrelationships present within complex systems (Merriam, 2009). While these methodologies have their limitations, they do allow a more complete understanding of people and experiences. Qualitative, phenomenological, and heuristic methodologies are most appropriate to this study and will be discussed in the following chapter. These methodologies were chosen to examine and exemplify the purpose of this study—how a novice dance/movement therapist’s body, mind, and systems are impacted by exploration with the patterns of connectivity. With a better understanding of the experience and impact of the developmental patterns of total body connectivity, a more informed discussion can be created around their value within preventative care, therapy, health, and self-care for clinicians.
Chapter 3: Methods

Methodology

This research was designed using phenomenological and heuristic methodologies and qualitative methods. As seen through the review of literature in the previous chapter, limited research has been conducted on the patterns of total body connectivity. Part of the difficulty with researching the patterns of connectivity is that each is part of a larger system. By only researching one connectivity, the number of variables decreases; however, the relationship between the connectivities and integration may not be fully understood. Despite the struggles with researching the complexity of the patterns of connectivity, I found interest in their value to DMT. Therefore, I set out to further understand my experience of the connectivities and their impact on my life. Based on this information, I wanted to discuss the connection between movement work and psychophysical issues, which can inform possible interventions in DMT. For this reason, phenomenological and heuristic research methodologies suited the demands of this research and my curiosities.

Research was conducted over an eight week period: one week devoted to preparation, one week to explore each of the six patterns of connectivities in developmental order, and one additional week for integration. This time frame was chosen to allow enough exploration for themes and meanings to emerge while maintaining a manageable amount of data. Research was designed to provide both structure and freedom in the exploration of the connectivities. By hiring a qualified movement coach, I was able to confirm my experience, expand my bodily knowledge of the connectivities, and receive structured feedback through the use of a choreographed movement phrase and MACS. Individual movement sessions, daily reflective journal writings, and video-recordings were further utilized as data in this research design to enrich the experience.
and discover the impact of the connectivities and integration on my life. Qualitative data analysis was then applied to determine themes within the data.

**Qualitative research.** Qualitative research methods were used for this research design. When studying social sciences, “qualitative researchers are interested in understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences” (Merriam, 2009, p. 5). This research is done through the collection and analysis of words as opposed to numbers, as is done with quantitative research. People live within systems and reducing these systems down to variables, as is done in quantitative research, can lead to fragmented understanding of phenomena. While quantitative research has a time and place, it was not most useful for this research design. Qualitative research allowed flexibility in this study. With qualitative research, “relevant variables are not known ahead of time, findings are inductively derived in the data analysis process, and so on” (Merriam, 2009, p. 16). In this way, the theoretical work currently available on the patterns of connectivity could be openly explored.

**Phenomenological research.** Qualitative research stems from the idea of phenomenology as it is derived from wanting to understand experience and people in ways that quantitative research was limited in doing. However, phenomenological research is a unique branch of qualitative research as it focuses on studying the lived experience of phenomena; the task of phenomenological research is to describe the essence of an experience (Merriam, 2009). Husserl was one of the first philosophers to discuss how studying one’s own experience can be beneficial in creating meaning (as cited in Moustakas, 1994). Moustakas (1994) quoted Husserl who said, “I cannot live, experience, think, value, and act in any world which is not in some sense in me, and derives its meaning and truth from me” (p. 45).
The research question in phenomenological research derives from interest in a topic that has autobiographical and social significance (Moustakas, 1994). In the case of this research, I was interested in knowing more about the experience of returning to developed movement patterns and re-patterning. I was first introduced to smaller re-patterning projects in the DMT&C and GL-CMA programs at Columbia College Chicago. These projects concentrated on re-patterning one pattern of connectivity or issue in movement. I found these re-patterning experiences provided opportunities for increased self-awareness and personal growth and presumed that the experience of the patterns of connectivity could significantly impact the life of others. As is the common practice in phenomenological research, I considered my previous experience with the patterns of connectivity and attempted to minimize bias when looking at this new experience.

**Heuristic research.** Heuristic research was chosen for this research design due to my own personal desire to explore the patterns of total body connectivity and the realization that this may be the only way to truly understand the experience. With this being said, I had difficulty letting go of preconceived notions that research should be quantitative and/or involve numerous participants in order to have value. Understanding how my experience is valuable and can potentially speak universally motivated me to be the sole participant in this study. Moustakas (1990) explained the importance of heuristic studies stating, “The heuristic process is autobiographic, yet with virtually every question that matters personally there is also a social—and perhaps universal—significance” (p. 15). Some researchers argue that understanding the experience of others is impossible; the researcher cannot completely know the participants’ thoughts or feelings. When studying his or herself, the researcher has access to “the deepest currents of meaning and knowledge [that] take place within the individual through one’s senses,
perception, beliefs and judgments” (Moustakas, 1990, p. 15). Therefore, using heuristic research for this study allowed a thorough look into my experience of the patterns of connectivity.

Moustakas (1990) identified six phases in heuristic research: initial engagement, immersion, incubation, illumination, explication, and creative synthesis. This describes my process from identifying my interest in the patterns of connectivity, wondering about the value of the topic, finding meaning and focus, conducting the research, and analyzing the data.

**Participant and Setting**

As this is a heuristic study, the sole participant was me, a 26 year old female graduate student in the DMT&C program at Columbia College Chicago. While a movement coach was used as part of this research design to provide feedback and facilitate movement explorations of the patterns of connectivity, the data collected concentrated solely on my experience. Various locations in Chicago, Illinois were used to collect data. A dance studio at Columbia College Chicago was reserved three times a week to allow space for movement explorations. Individual movement sessions were held twice a week for one to two hours, and movement coaching sessions were held once a week for two hours. This research design required a rigorous data collection process that was intended to gather information through journaling about the impact of the patterns of connectivity on my life. Therefore, data was collected in various locations around Chicago, wherever the desire, space, and privacy to reflect arose. While Chicago public transportation, parks, and coffee shops were settings utilized for data collection, the majority of this type of data was collected at my home, an apartment located in Chicago, Illinois.

**Procedure**

**Preparation.** In preparation for conducting this research, several details had to be organized. First and foremost, a movement coach had to be hired, who had the expertise required...
and availability for eight consecutive weeks. This was achieved by networking at a Columbia College Chicago event, the DMT&C Research Celebration, where I presented my proposed research. During the event, I discussed my study with a colleague in the DMT profession, who is a certified movement analyst and showed interest in being my movement coach. Email communication was then used to confirm this interest and keep the movement coach updated on the status of my timeline.

Several months later a meeting was organized with the movement coach to discuss minor changes in the proposed research design, expectations, boundaries, schedules, and fees. Luckily, these details fell into place rather smoothly. I received a tutoring grant from the DMT&C department to assist with movement coaching expenses, and a payment plan was created between the movement coach and me to cover the rest of the fees.

Initially, I hoped to meet with the movement coach twice a week, once to begin exploring the connectivity and a second time to assess my progress with that connectivity. This idea was not lost; however, in order to accommodate the schedules of the movement coach and me, this was done during a two-hour session, once per week. After schedules were coordinated, space was reserved for two hours on Wednesday evenings in the dance studio using Columbia College Chicago’s online space reservation system. I reserved this same space for individual movement sessions on Monday and Friday.

During this meeting, the movement coach and I discussed how the patterns of connectivity would be assessed. While video-recordings were included in the research design for my personal review, there was a desire to have a systematic and structured way for my movement coach to give feedback and for me to receive it during movement sessions. A MACS was designed for this purpose. MACS provide depictions and evaluations of observed movement
in many different ways such as using tally systems, Likert scales, diagrams, and written feedback. These ways of coding movement have different benefits, reliability, and validity in research, which the movement coach and researcher discussed. Cruz (2006) addressed the subjectivity of movement assessments and stated that using, “descriptive terminology, such as LMA for the movement behavior” (p. 136) and applying systematic observations, “that it is done the same way, in the same context, and at defined intervals,” (p. 136) can help alleviate some subjectivity. LMA and a systematic approach were used in the assessment process of this research; however, subjectivity was still inherent to this process due to the relationship formed between the movement coach and myself throughout re-patterning.

My movement coach and I agreed that a MACS would be used each week and at the beginning and end of the exploration process to record her observations and evaluations. At the beginning and end of the exploration process, my movement coach completed a MACS (see Appendix B) based upon observing all of my patterns of connectivity in a choreographed movement phrase. In addition, my movement coach completed a MACS (see Appendix C) at the beginning and end of each week based upon my execution of the choreographed movement phrase to assess progress in the connectivity that was being explored. Assessment utilized a Likert scale that showed where my patterns of connectivity or integration fell on a spectrum between very weak and very strong. In addition, comment sections provided further insight into my movement coach’s observations and prescriptions for appropriate exercises to further access and strengthen the connectivity. During the week, these comments were referenced to provide direction in solo movement sessions and explorations. While my movement coach and I discussed my own evaluation of the connectivities, these were not recorded on a MACS. No
major discrepancies were found between my movement coach’s assessment and my own evaluation.

It should also be noted that the language of how the connectivities would be assessed was discussed before starting movement coaching sessions. On the MACS, a Likert scale was used to indicate where the researcher’s pattern of connectivity or integration fell between a spectrum of very weak and very strong. The terms weak and/or strong may have negative connotations to some movers. The terms present and not present or not using words at all may be alternatives. I found it helpful to discuss with my coach and imagine what it would be like to receive an evaluation of my patterns of connectivity prior to the actual study, as it allowed a more compassionate and open-minded approach to the assessment process.

In order to video record coached movement sessions, I borrowed a camcorder from the movement coach and purchased DVDs prior to the study starting. In addition, time was allotted prior to the study commencing to become familiar with the equipment to prevent disruption and wasted time during the movement sessions.

Coaching sessions. For the first coaching session, the main task was to create a choreographed movement phrase, through which each of the patterns of connectivity could be applied, coached, and assessed. Movement was derived from a structured improvisation exploration guided by the movement coach that progressed through the connectivities in developmental order. This process allowed the movement coach to become familiar with my movement preferences and insure that I was comfortable with the movement used in the choreographed phrase. Once the movement phrase was choreographed, I executed the combination while the movement coach assessed my initial strengths and weaknesses within the patterns of connectivity.
With the exception of the second and last movement sessions, the sessions took the structure of using the first hour to check in on the pattern of connectivity explored during the week proceeded by exploration of the following pattern of connectivity. The schedule appeared as follows:

- Week 1: Choreograph and initial assessment
- Week 2: Breath connectivity
- Week 3: Breath connectivity follow up and core-distal connectivity
- Week 4: Core-distal connectivity follow up and head-tail connectivity
- Week 5: Head-tail connectivity follow up and upper-lower connectivity
- Week 6: Upper-lower connectivity follow up and body-half connectivity
- Week 7: Body-half connectivity follow up and cross-lateral connectivity
- Week 8: Cross-lateral connectivity follow up and integration
- Week 9: Integration follow up and final assessment

Thus an entire week was dedicated to the exploration of a connectivity before being coached on the next. While this schedule signifies nine weeks of data collection, there were only eight complete weeks utilized for data collection from start to finish.

Movement sessions began by verbally sharing highlights from my experience with the pattern of connectivity focused on during the week. The night before my coaching session, I extracted highlights from my journal entries and organized them using bullet points. Then I presented the choreographed movement phrase layering on the connectivity of focus while my movement coach observed and recorded feedback on the MACS. Feedback was shared and incorporated through additional practice with the pattern of connectivity.
Since the connectivities build on one another, the transition into the following pattern of connectivity happened organically. Often, the movement from the choreographed phrase was utilized for coaching and practicing the connectivity. While the movement phrase provided some structure in assessing and coaching ideas, space was given so that both the coach and I could communicate ideas and guide the sessions. Additional exercises, including some of Bartenieff’s basic six exercises, walking, and infantile movements, were utilized as my movement coach saw necessary in addressing where I was at with that particular connectivity. Concepts from Laban Movement Analysis, touch cues, imagery, and anatomical references were used to assist in the exploration, awareness, and deepened knowledge of the patterns of connectivity. The movement session would end with my execution of the movement phrase layering on the pattern of connectivity that would be focused on for the week and reviewing the movement coach’s assessment.

During the movement session, touch was occasionally used as a coaching tool. This was an aspect of coaching that was discussed prior to entering into the sessions. As touch cues permeate individual boundaries, this is an ethical matter that should be considered by movement coaches and movers. For myself, I was comfortable with this proprioceptive feedback and found it helpful in my exploration.

Another ethical consideration for this study, which came up on occasion during coaching sessions was emotional and psychological boundaries. Boundaries were discussed prior to starting the data collection process and understood by both the movement coach and myself. During the data collection process, emotions emerged and memories were triggered. While the movement coach acknowledged these emotions, therapy was not a part of the data collection process. In preparation for the potential responses I may have to this exploration, I made sure to
have a solid support system in which I could process content that came up from working with the body.

**Video review.** Each movement coaching session was video recorded. The day after my coaching session I watched the video of the session and observed my movement in my apartment. I moved in my apartment when I was inspired to practice, and I took notes on my computer filling in details about the sessions that may not have made it into my journal entries. Memories are not complete pictures of an event, thus the reflections in my journal on movement sessions did not always capture all of the meaningful moments. The videos provided a record of my experience from start to finish, progress made in connecting to my body, and accessing fuller mobility.

Furthermore, the visual information from the videos aided my exploration process by adding another lens to my patterns of connectivity. I put this into my research design with the knowledge that my preferred learning style is visual. Observing my movement and the holding patterns in my body allowed increased self-awareness and confirmation of the feedback my movement coach provided. With this being said, I dreaded watching the videos as it triggered a self-critical part of myself. While this sometimes felt excruciating, this also eventually led to more self-acceptance and compassion.

**Individual movement sessions.** As mentioned previously, individual movement sessions were scheduled twice a week in a dance studio at Columbia College Chicago. On Mondays, a two-hour movement session was held. Since I worked on Fridays, only one hour was scheduled as to accommodate my daily life obligations, which were also a subject of my data collection. During the movement sessions, I practiced the choreographed movement phrase concentrating on the connectivity that was being focused on that week. Additional movement exercises that were
recommended by my movement coach were also practiced. Time was spent listening to my body’s needs and following internal impulses through improvisational movement. When needed or desired, I returned to previous patterns of connectivity to find additional support for the current connectivity being explored.

**Journaling.** After each coaching session, solo movement session, and video viewing, I wrote in a journal about the experience, movement, feelings, sensations, and images that resonated with me. These journals were either done within the dance studio after the movement session, on the train on the way home, or in my apartment. This was the main source for collecting data on my experience of re-patterning and the impact on my daily life.

My small journal accompanied me everywhere throughout the data collection process as I also reflected on my daily life, associations with the pattern of connectivity focused on during the week, memories, dreams, relationships, and mood. Shortly after beginning the data collection process, I realized that this began to feel constrained and may even cause the data collected to be derived from an unauthentic place. This may have just been my excitement and stress within the data collection process; however, I believed that balance was needed in this journaling process. I still carried my journal around for those occasions that needed immediate attention or to write notes; however, I began saving my journaling for the end of each day when I could elaborate on notes made throughout the day and reflect, in hindsight, on the previously described subject matters.

**Data Analysis**

For this research process, the suggestions for data analysis by Moustakas (1990) were taken into consideration along with techniques to categorize qualitative data. The beginnings of data analysis occurred within the data collection process itself. Each week, I read my journal
entries and pulled out salient parts of the data that spoke to my experience of the connectivities and their impact on my life. Once all of the data was collected, I immersed myself in my journal entries, completed MACS, and some videos. After allowing the data to incubate, I returned and re-read the journal entries out of order, underlined significant passages, took notes in the margins, and tried to bring a new perspective to the data. Since I had previous experience with the patterns of total body connectivity, I recognized and was aware of my biases. I entered the data collection process with an assumption that personal growth and change would happen; however, in collecting the data and applying data analysis, I set these assumptions aside to approach the data with minimized bias. This was not difficult as my daily life activities and relationship to the patterns of connectivity had changed since my previous explorations.

After reading through my data two times, I read through my journal a final time while simultaneously creating a word document with bullet points of significant quotes. This time, each week and connectivity was approached as a whole; however, the weeks were analyzed out of order. An extensive list of significant data was created and organized under the pattern of connectivity from which it came. From here, data was analyzed using color-coding to assist in seeing relationships between data and creating themes. Themes were derived separately for each week in order to look at a manageable amount of data and to determine if significant differences existed in the themes from week to week. The themes from each week were then analyzed in relationship to one another and generalized further into overarching themes.

As this is a heuristic study, data analysis was subjective (Moustakas, 1990). Personal meaning and intuition were brought into placing value on the data and focusing themes. In analyzing the data, I made sure to include information that seemed personally significant about the experience while also making sure the experience was shared thoroughly. Data analysis
showed that re-patterning was a transformational experience. It also sheds light on how movement is transformational and an agent of change. The themes derived from the data constitute the results of this study, which will be presented in the following chapter.
Chapter 4: Results

Research was conducted to answer the questions: What is the experience of a novice dance/movement therapist with the patterns of total body connectivity and what impacts do they have on her daily life? The purpose of this study was to gain more information on how the patterns of total body connectivity impacts the life of individuals who experience them and what the re-patterning process is like. By understanding the experience of the patterns of connectivity, a more informed approach to applying the patterns of connectivity to DMT can be understood. While not a primary question to this research, I also wondered if the psychophysical relevance of the patterns of connectivity, theorized by Hackney (2002), would surface in the exploration process. While this curiosity was not a primary part of this research, it will be addressed in the discussion chapter alongside implications for how the research will be beneficial to the field of DMT and my future work as a clinician.

From data analysis, I determined that exploring the patterns of connectivity was transformational to me. During my studies at Columbia College Chicago, my confidence within the DMT profession has wavered. Through the exploration of the patterns of connectivity, I was reminded of why I chose to become a dance/movement therapist, which has to do with my own relationship to movement. I have found movement to be powerful as it allows connection, expression, and change. The patterns of connectivity provided a structured and holistic way of tapping into and deepening my understanding of the power and meaning of movement in my life. I increased my self-awareness, efficient use of my body in movement, and understanding of how stress manifests itself in my body through holding patterns. I noticed changes at a bodily level often changed my perceptions and interactions with the other environments in which I was living my life. Since this is heuristic research, themes presented are subjective; however, their
meanings within my life are invaluable. The following themes were derived from the data and represent my experience and the impact of the re-patterning process on my life: body parts, vulnerability/support, experience of the present moment, resiliency, compassion, and change. Within the presentation of results, quotations from my journal entries will be used to provide evidence for the overarching themes and will be documented, as such, using quotation marks.

**Body Parts**

Throughout the eight weeks of data collection, my relationship to various body parts became heightened. I realized ways in which I was holding tension in body parts and how tension hindered my mobility. Holding patterns varied from week to week depending upon the connectivity explored, my stress level, and activities. In general, I recognized bound flow in the body parts that were held. Many times accessing free flow during movement exercises and exploration helped alleviate the holding pattern. In addition to the way tension was experienced in my body parts, I realized my relationship to body parts and insecurities. My experience with my pelvis, jaw, scapula, and ribs during the re-patterning process will now be described.

**Pelvis.** The exploration with my pelvis began with my breath, which allowed new sensations that felt mobilizing. Imagery was used to help feel how breath traveled into my pelvic floor and sitz-bones. My movement coach suggested imagining the pelvic floor as a flower. As breath came into the pelvis, the flower petal would blow slightly as if caught by a soft breeze. In an individual movement exploration, I truly found the sensation of breath in my pelvis. It felt like a wind swooshing through a bowl accentuating the anatomical structure of the pelvis. Despite the mobility I felt with breath sweeping through my pelvis, I still held tension in my pelvis.

By working with movement in my pelvis, I was able to release tension; however, it caused an emotional response and exhaustion. In order to help me release the pelvis, my
movement coach assisted me by manipulating my legs during core-distal exploration. While I lay on my back, my movement coach held one leg in her arms. She coached me to give her the weight of the leg, so she could move it. The goal was to open up my femoral joint and allow the support of the movement to come from behind me using the psoas muscle. It was during this exercise that tears began to form in my eyes. I was not sure where these emotions came from or why.

My movement coach acknowledged the emotion, and we discussed how I was losing the potential for mobility by holding in my pelvis. We refocused by concentrating on her. She demonstrated what I was doing and allowed me to place my hands on her pelvis to feel the difference between holding and releasing. It became clear, visually and through touch, that tightening the pelvic area reduced the size of the pelvis by inches, but it also restricted mobility. I consciously hold my pelvis in this way to reduce inches, which brings up my own body image issues; however, I did not realize that this holding drastically affected my connection with my body and mobility. Through this coaching session, release did happen. After this movement session, I left with a headache, feeling exhausted, and like a haze had set in over me. I did not feel like I could do anything except sleep. This haze was recorded in my journal for the next couple of days.

Throughout the process of working with my pelvis, my pelvis began to feel free. During the core-distal week, I noticed my hips “were freer to move, but I was reluctant to move them, afraid that I might lose the freeness that I felt and begin gripping again.” My movement coach and I talked about how this is a common area that is held in the body. Bartenieff called it the dead seven inches, but my coach referred to it as half alive on me. Sometimes the movement message would travel through my pelvis to my legs, and other times it would not.
In my last week exploring integration, I was more comfortable with attention on my pelvic region and initiating movement from here. I initiated conversations that helped me clarify the anatomical placement of my sacrum. I had misconceived my sacrum as small and found the actual size more stabilizing. In addition, “I found a comfortable rolling movement on the floor where my pelvis led, rolling me over from my back to my stomach. My legs naturally followed. The message got through!” My relationship to my pelvis changed during the exploration time. At the beginning, I held my pelvis trying to make it smaller than it was; however, I found releasing the pelvis allowed more satisfying, efficient, and expressive movement.

**Jaw.** During the data collection process, I began to have heightened awareness of tension in my jaw. In the past, I have been told that I hold tension in my jaw and face; however, the tension usually does not cause me pain. During the week that I was exploring my core-distal connectivity, I noticed intense pain in my jaw. The awareness of this pain stayed with me and was recorded in my journal for three weeks.

My movement coach observed tension in my face and jaw throughout the process. In reviewing video footage, I witnessed how I would perform my movement phrase with a smile. Part of this was because I enjoyed the movement, but the other part was because I did not know how to relax my face. Gradually as the data collection progressed, particularly at the end of the head-tail week, I began experiencing softness in my facial expression.

The tension in my jaw became a focus during the week that I explored my head-tail connectivity. I reflected in my journal about a discussion my movement coach and I had “about how the tension in my jaw related to the head-tail connectivity. As a baby, I learned mouthing movements in a way that somehow created a holding pattern in my jaw and neck.” In order to re-patter this movement, I was coached to lie on my back and open and close my mouth. “At first,
this did not create movement in the spine.” Once I looked at a skeletal model and massaged my jaw, this subtle movement was created. From here, I began exploring space using my mouth and gaze as a guide, which allowed movement to travel through my spine without being blocked.

**Scapula.** The lack of awareness that I have in my scapula became apparent during my first movement session exploring breath. My movement coach had me explore how breath could move my distal limbs. In my journal, I wrote that my “scapula seemed to move easier with my breath than my legs do.” However, I had limited sensations in my scapula. The sensation generally associated with my scapula is pain, but usually this is not even present. The morning after my upper-lower connectivity I did feel pain in my right trapezius muscle caused by a huge knot that had formed. During the upper-lower coaching session, we had worked on “walking and allowing my scapula to move freely.” I held my scapula and ribs while I walked, and I concentrated on re-patterning this by allowing my upper-body to respond to the weight shifting happening in my lower-body. I wondered if this exercise contributed to either an awareness of or movement of tension into a tight clustered knot. Since I was in so much pain and could barely move my neck, I received a professional massage to alleviate some of the tension.

There were two other moments recorded in my journal that document feeling sensation in my scapula. The first was during exploration of naval radiation. As I was transitioning from my back onto my left side, “there was a huge cracking noise on the left side of my scapula. It felt like a huge bustle of knots broke apart.” The second happened during head-tail exploration when I was lying on my back concentrating on my breath. “I was able to feel my scapula on my ribs.” While I have been instructed to feel this sensation before, I have only felt it one other time.

Holding in my scapula contributed to superficial stability. During re-patterning my upper-lower connectivity, I reflected in my journal about my coach’s “concern that I was finding
stability by holding in my scapula.” My experience with my scapula prior to re-patterning was that I had to push them down in order to keep my shoulders from rising towards my ears. By forcing them down, I did feel some stability was achieved. However, stability is supposed to inform mobility, and by forcing my scapula down, I was losing mobility in my arms, scapula, clavicle, and ribs. For re-patterning, I began focusing on yielding and letting the change happen.

Holding between the scapula became associated with protecting my heart. Upon recognizing associations of this holding pattern made by my movement coach and supported by Cohen (1993) and Hackney (2002), I wrote that it does “seem like I am protecting my heart. There is a sadness that I feel in this.” This was one of the most challenging holding patterns for me to become aware of and try to change. As was recognized by my movement coach, this holding pattern seemed to come and go. Some weeks the holding pattern was present, and other weeks it was not. Coupled with the fact that I have difficulty sensing my scapula, this made re-patterning even more difficult. From the time the re-patterning process began, I do feel like I gained awareness about the capabilities the scapula has for mobility; however, I continue to try to let go of this holding pattern.

**Ribs.** Holding that occurred in my ribs throughout the data collection process is closely related to the holding in my scapula. In the final integration week of my exploration, I wrote in my journal that the main area where I hold “is in my lower ribs where my diaphragm, lungs, and psoas connect. This is observable in my walking.” Like the holding that occurs in my scapula, I have a hard time feeling it. This area is where the upper and lower body becomes connected by the psoas attachment, and movement sequencing between my upper and lower body became caught in this area. This was seen in practicing the knee drop exercise. Instead of movement
spiraling through my entire torso with three-dimensionality, the movement would get “lost in my torso jutting out through my ribs.”

**Vulnerability/Support**

My relationship with vulnerability dates back to early changes in my life, which will be further discussed later in the results chapter. My parents divorce and my brother’s illnesses left me feeling vulnerable. This was coupled by values that my mother instilled in me—mainly the importance of being a strong independent woman. In my familial situation, my mom had become a single mother supporting three children. Independence and strength were of the utmost importance to our survival and are admirable for any woman to achieve. Through my development, which incorporates both my early childhood and continued interactions in the world up to this point in my life, I began to associate strength with holding my musculature and learned to trust only myself. My body developed a rigidness that served as a coping mechanism to protect myself, but this body attitude contributed to a lack of mobility and stability.

This became apparent during my exploration of core-distal. I had a friend manipulate my legs to try to help find releasing-through my pelvis. I reflected on this experience writing in my journal, “it is scary to put the power in her hands concerning how I move. I guess I have learned to only trust myself, to maintain control and be safe. But in some ways, this is dissatisfying.” This realization led to further journal entries during the head-tail week about my internship experience. My site-supervisor told me that, “it can be a powerful and strong thing to be vulnerable.” To an extent, I understood what she meant. Throughout my experience with re-patterning my connectivities and integrating, not only did my relationship with vulnerability surface but I began to incorporate it into my life by letting my muscled body armor go, finding
the ability to yield, and relying on my inner connectivities to support me in interactions in the world, socially and professionally.

**Letting go of body armor.** Re-patterning caused me to become aware of tension that I held in my body and how this tension incorporated my bodily-learned conceptualization of strength and stability. This was first seen in my core-distal movement session with my coach. My coach tried to help me release muscles through my pelvis and legs to provide more efficiency. When my coach went to help release my hamstrings, they jiggled. This caused an emotional response that was tied into feelings of vulnerability. In recognizing my emotion but taking the opportunity to tie in the potential for mobility, my movement coach stated “flesh has the potential to jiggle. It is quantum physics that cells vibrate.” I realized that holding my muscles was tied into my concept of what strength is. I reflected that even though my muscles may jiggle, it does not mean that they are not strong but that they are being worked in more efficient ways. Furthermore, I wrote, “it doesn’t mean that I am not contained or out of control.” Throughout the movement process, imagining my skeleton moving helped me access less muscled movement.

In the process of becoming aware of holding patterns in my body and attempting to let them go, I became aware of how connections in the body can allow more substantial stability. In exploring my upper-lower connectivity, I reflected on my movement coach’s feedback. She had expressed concern that “I was finding stability by holding my scapula. By doing this continuously, she feared I may lose mobility in my ribs and find superficial stability.” In a journal entry, I wrote:
And here I am now, studying holding patterns in my own body and realizing, to a degree, what it might mean to be strong in vulnerability. I can be connected, try not to be afraid of it, and see where my impulse, my body knowledge, and connection take me.

I realized that in letting go of my holding patterns, my body armor, I felt vulnerable. This was a new experience, and I was not certain if my own connection could support me; however, I saw that true stability came from being connected. In one journal entry, I discussed how experiencing this vulnerability and finding connection can provide fuller mobility, which may allow me to reach out into the world. In this way, interacting with the world is supported; “it’s not just a point in space to reach toward, but it comes from the connectivities inside.”

Yielding. Besides finding how my connectivities can support me, I also found awareness for how yielding through the ground can provide the support I need in my movement and life. In a dance class that I took, the teacher instructed us to “let ourselves go, to take a risk.” In my journal, I questioned, “How can I do this when I’m not yielding into the floor? When I’m not sure there will be support? Even in life, how can I take risks when I’m not sure that there will be the support I need to catch me?” Despite my hesitation in this, I did try to apply yielding into my life. Instead of worrying and anticipating, “I found myself yielding into the situation and just letting it unfold.”

Increasing my relationship to gravity and ability to yield through the ground allowed me to feel more support from my environment. This began with re-patterning my yield-push, reach-pull patterning during the upper-lower week. I learned how each finger and toe yields into the ground and provides feedback to the torso. For example, yielding through the thumb activates a connection to the pectoral muscles. Excitement began to brew inside me as I realized the potential feedback I can gain from my environment. I also became aware of how different parts
of my body can yield, including my ribs and pelvis. In a journal entry from my integration week, I wrote, “[by yielding], I can let the environment hold me and allow myself to be both vulnerable and supported in it.”

**Listening to my body.** While I went into this process with tools and awareness of how to listen to my body, I came to realize my relationship to this task. I heard a quote during the head-tail connectivity week about “how our society breeds this idea that being disconnected from our bodies is safer than being connected.” I found meaning in this quote as I have seen this in others and myself. During my internship process, I received feedback from my academic internship supervisor, who witnessed me as more comfortable in my thoughts and head. Entering into and listening to my body felt vulnerable. In the process of re-patterning and reflecting on this previous feedback, I wrote, “I am starting to see how the body is a powerful resource…I don’t always know what is held in the body, but I know it is a lot—memories, emotions, fear, uncertainty and even the ability to let go.” The fact that my body holds so much of my uninhibited self makes it intimidating for me to connect to it.

Disconnection from my body became clear during the assessment of my upper-lower connectivity. I had explored the connectivity for an entire week concentrating on the yield-push, reach-pull patterning and bringing more action into my movement. When I showed my coach my movement phrase, she recognized a difference in my movement qualities. I was not as connected to my body as I had been in previous weeks. I was not attuned to my breath, and my ability to yield seemed to have regressed. In looking at my journal entries from the week, there was evidence of a busy schedule that had left me feeling exhausted. It became clear that I skipped yielding and began reaching out into the world without the support of my body and grounding. My movement coach commented, “If you are going, going, going, without the support of the
earth, this can be exhausting.” I began wondering, “Can my body even give me the information I am looking for? Can I listen to it...Hear, if it’s going to give it?” With my exhaustion, I felt like “I might just be a puddle on the floor if I listen to my body.”

In retrospect, I realized that listening to my body can start at a simplistic level by allowing sequencing of movement through the patterned connections in my body. This became clearest in journals about my head-tail connectivity. In sequencing through spinal movement from the head to the tail, a ripple began happening in my back around where the psoas attached to the thoracic spine. I anticipated the movement, and a blockage formed. “Trusting that the movement could travel through the spine created a quick fix to the ripple happening in my back.” By tuning in to the movement rather than anticipating, I could allow a complete movement as opposed to breaking it.

Improvisation also provided opportunities for me to listen to my body and explore my connectivities within a variety of movements. Through this process, I had to listen to my inner impulses. My coach would tell me that I did not “have to create or demonstrate doing this, just allow it to happen.” I realized, “I was more comfortable with choreographed movements. This was how I was taught movement, observing and replicating; however, it feels like a totally different experience to follow my impulses. I am not just mimicking someone else. I am letting myself come out in unique and expressive ways.” Emphasis was placed on allowing me to find meaning within my own connections, so that way, I did not use my musculature to create observed movement. To do this, I had to listen, trust my body, and find meaning in my own connections and body.

**Profession.** Within this exploration process, thoughts about my place within the DMT profession arose and relate to feeling vulnerable. The thesis is the last step before I get my
masters degree and find a job working as a dance/movement therapist. Journal entries reflected this transition and my resistance to re-entering the professional world. I reflected on how, “I’ve questioned my career choice many times throughout the program.” While I entered the program with a desire to help others and use dance to do so, sharing the experience and power of movement can be challenging, particularly to those who are disconnected from their body. During the week that I explored my head-tail patterning, I found that “I even [had] a hard time talking to my family about the profession.” I questioned my ability to be authentically in therapeutic relationships, bring my body into the therapy session, and remain grounded. This led to exploring other career options and entertaining the option of going a different route altogether during the course of the data collection process.

As the process continued, I began to accept my own qualms about the profession. I realized that I felt, “like I was floating away and getting farther away from what I wanted in life.” I began questioning what it is that I am reaching for, what population I want to work with, and what my theoretical framework is. I realized that I do not have to have all the answers right now. Even if I make a plan in anticipation of my future, I must be flexible and see where my professional development takes me. While I questioned my ability to be a dance/movement therapist during this eight week period, I also began searching and applying for jobs. I recognized how I will bring my body into therapy, whether I am dancing or talking with clients and began feeling excitement about this. As I look at my journey in relationship to my feelings about being a dance/movement therapist, it seems as though my acceptance of the profession parallels my increased self-awareness and connection.

**Relationship.** Data showed that finding inner connectivity brought up my feelings about being in relationships. During the course of the data collection process, my relationships with
others were changing. Two of my close friends moved away from the city. I explored starting a new intimate relationship, and I decided to live with two roommates. While I began the process feeling like I could only trust myself, this began to change. I felt vulnerability in my friends’ departures and starting new relationships, but there was an underlying desire to connect with others.

My journal entries reflected how I feel like I hold back in relationships with others. During the exploration of upper-lower patterning, I noticed how “my hands seem to constantly implode on themselves and my energy breaks at the wrist. In Cohen’s book, it talks about how this body attitude relates to not having an open heart.” In talking to my movement coach, we discussed holding patterns and how they typically relate to different issues. Throughout the weeks, my movement coach had stated that my underlying holding pattern was in my scapula, which she relates to attempts to protect the heart. I feel that I do have a tendency to try to protect my heart and prevent being hurt. This was expressed in another journal entry that stated, “I am not sure I am allowing myself to be myself with him. I feel like I am holding back…I am not sure how to really let myself be out there when I am not sure if I will be accepted. It’s a vulnerable place to be.”

While I became aware of holding back in relationships, I also became aware of how finding connection in the body can provide internal support for being in relationship. During exploration of core-distal patterning, I explored movement by spreading out and coming back into myself. “This brought up thoughts of how I go out into the world. Do I go timidly or forcefully? How do I portray myself to the world?” Patterning my body can support being in relationships. This may be part of the reason why I wanted to “connect with more people at this
time in my life.” Internal connections provide support for being authentically in relationships; they allow knowledge and understanding that the self can be in relationship and not get lost.

**Changed perspective.** My perspective on vulnerability changed during this eight week exploration process. I no longer saw it as a weakness. Instead, I saw how vulnerability could mean letting my life happen. I realized that, “more time may be needed to change the patterns that have developed and aided me in the last 26 years of life.” At the end of data collection, I still did not feel like I had re-patterned completely; however, I gained awareness of how I move and perceive the world. The possibility of letting go of my previous ideas about strength allowed me to appreciate parts of myself that I may have previously considered weak, such as my emotions. This came up in my exploration of integration. While I felt emotional, my movement felt strong. This showed me that my emotions can provide an impetus for movement and strength.

Furthermore, patterned ways of moving and thinking can cause similar responses in myself and others. “With all these connectivities at my disposal, I can choose how to be responsive.” By accessing my patterns of connectivity, I allow my body to move efficiently, see the world through a new lens, and open up possibilities.

**Present Moment**

By exploring the patterns of connectivity, I was able to be more present in the moment. Throughout my journal entries, anticipation for the future was clear through journal entries on my career, moving to a new residence, and relationships. There were a fair number of journal entries that also concentrated on my past, including reflections on my internship experiences and memories that arose. However, my journal entries about my movement sessions tended to be about the present moment experience.
The patterns of connectivity seemed to provide an opportunity to access the present moment, which gradually seeped into my life. During the first week of exploring breath connectivity, I wrote, “while my thoughts were scattered at the beginning of the session, I left feeling more in the present moment, nourished by my own rejuvenating power.” Exploring breath allowed me to alter my state of mind from feeling overwhelmed in my ideas to concentrating on the here and now. By the time I was on my way to an individual movement session to explore my body-half connection, “I thought about how my mind has been rushing with ideas. But today there seems to be a calmness.” The improvement of my ability to be in the present moment was highlighted in my last movement session and my ability to attune to the present moment needs of my body. “When I started the combination, I allowed myself to wait until my body was ready to move.” Instead of just starting, as I would have done at the beginning of the data collection process, I was able to be in the present moment and recognize that I needed to wait for my breath to regulate before presenting the movement phrase. Through working with the connections in my body, I went from allowing the movement exploration to change my awareness to the present moment to being able to access the present moment before starting to move. Being able to connect to the present moment experience brought calmness, focus, and myself to the experience.

Resiliency

Resiliency was a reoccurring theme throughout my data. It began with realizing how my development, movement training, and interactions with the world have shaped who I am as a person and mover. Perhaps I had issues with patterning my movement during the first year of life. I cannot know this as these memories are implicit; however, I developed without any huge hiccups, so I assume my developmental tasks were sufficiently achieved in order for me to
function in my day to day life. However, I continued to reinforce my movement development and/or come upon new patterns through my interactions with the world, stresses, obstacles, joy, accomplishments, and physical training. These experiences are stored in my body in addition to my early movement development. This can be seen through my ballet training during formative years of my life. Ballet classes informed my movement and may play a part in why body-half is one of my strongest patterns of connectivity. Learning technique at the barre enforces stabilizing with one side of the body and mobilizing with the other. My body posture also may be a result of ballet training. Thus my movement training became engrained in my development.

Since memories and emotions are stored in the body, it is not a surprise to me that memories surfaced from my childhood. In exploring head-tail patterning, memories from playing on the playground made their way into my journal. This memory was triggered after being asked by my movement coach to be curious about my environment, which I found difficult to do within the dance studio. My movement coach suggested I create a fantastical world to explore. I did this as a child on the playground with my two best friends. We created our own world where we had to fight monsters to reach the next level; however, there never was an end. The levels just kept going and going. While exploring my upper-lower patterning, I reflected in my journal about visiting my extended family in Chicago. I wrote about the extreme differences in socioeconomic statuses between my nuclear and extended family that I experienced. I also made associations to specific dates, that I know of, where my life changed, such as my dad leaving and my brother being born, and related these to my movement patterns. The importance I found in this data was not that my memories coordinated with a specific age in my development, which makes sense as development is not a linear process, but that these memories were triggered by various tasks,
associations, or new neural firings in my mind. These memories speak to my experiences and how they contribute to who I am today.

Through re-patterning, my previous movement training and experiences did surface, but most importantly, these spoke to my resiliency and ability to change. During exploration of my upper-lower patterning, I reflected that there was hope in, “the ability to start over new.” All the experiences that contributed to my movement patterns could be released and changed. Later that week, I also commented that “doing the connectivities reminds me of my foundation and development…Going back and re-patterning, I shift between knowing that I can change this and feeling stuck.” While there were times that I felt down on myself for my inefficient movement patterns, I did see change and embraced it.

My resiliency can be seen in how I utilized my previous experiences with waiting to allow myself to find the present moment. During the week that I explored integration, I was thinking about the idea of waiting in relationship to listening to my body, which triggered memories of other experiences in my life where I have had to wait. I realized that “waiting has had a negative connotation in my life. It feels like I’m missing out,” which developed into a constant need for readiness and anticipation. This anticipation can be seen in my journal entries that take a future-focused stance. Understanding my previous experience informed my reaction to waiting in the present moment. It allowed me to see that, “by waiting for myself, my body, or any part of myself, I can make more out of a moment.” In this way, I can change, be resilient, and not be stuck in old movement patterns.

**Compassion**

Throughout the data collection, my tendency to be hard on myself crept into my movement process. During core-distal exploration, I became discouraged and wrote, “It feels like
so much is wrong at the moment with my movement, and it is hard to find a focus.” Watching video footage of my movement sessions sometimes triggered feelings of disgust for how I was moving or my body. Early on in the data collection process, I realized how this tendency may inhibit me from finding connection in my body. As previously presented in this chapter, I developed patterns of holding musculature to make movements happen. However, the point of this study was to find inner connectivity and true stability that could mobilize my body. By learning to take a gentler approach and appreciating my body, I was able to find compassion for myself within this process.

Taking a gentler approach to myself and my movement became a useful tool in building self-compassion. This idea materialized from feedback that I received from my movement coach. She observed that, “when I approached the leap at the end of the movement phrase more gently that I appeared to be more connected.” This resonated with me, and I made associations to my life finding that “when I approach tasks gently, they come with more ease and connections.” This subject came up again during my movement coaching session for upper-lower. I had asked my movement coach what effort qualities she observed as salient in my movement. She described flow and space, but she also felt that I used lightness or the pre-effort of gentleness with myself.

The gentleness that I found allowed me to be more appreciative of my capabilities within the moment. During one movement coaching session, my movement coach was instructing me to engage my inner thighs while I squeezed a tennis ball between my legs and bent straight down. I commented that I should be able to bend down farther. My movement coach questioned me, “who says you should be able to bend down farther?” Throughout the movement process, I found myself caught in a tendency to base my movement capabilities off of others. However, I began catching these mental thoughts and noticing the variance in my abilities from day-to-day. During
one of my individual movement sessions exploring head-tail patterning, I commented, “while I want to push myself for results, I also have come to realize that this is just where I am at for today. I can’t make something happen that just won’t today.” In this sense, I had begun to find compassion for my abilities even within varying moments of time.

Compassion was also seen in building appreciation for my body. While I found myself deprecating body parts while I watched video footage of my movement sessions, I explored them with appreciation in my individual movement sessions. In exploring core-distal patterning, I found appreciation for the digestive functions in my belly. With my pelvis, I began to recognize it as a source of power. This began to alter my feelings toward my body as I moved and witnessed my movement. I gave myself more credit and realized that perfection is an impossible goal. Concerning my perceived physical flaws, I took a new stance that, “I may be unable to change my body; however, I am changing my relationship to my body.” By the time I viewed my last video, I found myself enjoying it. While my body was still the same, I noticed that “I looked move alive. There are complex connections happening through my core and limbs, and I seem to fill up the space.”

**Change**

Change can be seen as an overarching theme that encompasses all the other themes presented in this chapter. My experience of body parts, vulnerability/support, resiliency, and compassion have to do with initiating the process of change through increased self-awareness and creating change through continued practice. These themes show change; however, change will now be presented as a separate theme derived from data, journal entries, specifically addressing my experience of change during the re-patterning process.
Physical change in my body happened throughout the eight week exploration. Through the MACSs and verbal feedback from my movement coach, physical change became apparent. For example, during the core-distal patterning, I had difficulty initiating from my core to move my legs. My legs felt heavy and nailed to the floor. I spent time working on feeling my breath in my pelvis and allowing my breath to initiate the movement. Not only could I feel the difference within one week of beginning to explore this sensation, but my movement coach also commented on the improvement. My pelvis became a concentration in re-patterning, and change could be seen throughout the process. When I was working on the head-tail connectivity, I noted, “It was frustrating to me to lead with my pelvis. I could not feel how it could initiate movement through my spine.” During my last movement session, my ability to initiate movement from the pelvis improved. Attention that was focused on my pelvis also did not seem disregulating, as it had during previous weeks. In reviewing video-recordings from the first and last session, I could see change in my movement. Initiation of the movement could be seen coming from my core, and the movement had a fuller appearance as it utilized three-dimensional space more effectively.

Sometimes physical change seemed to happen almost instantaneously. In my first session of exploring breath, my movement coach used touch cues to guide and support my breath. She touched areas of my body where breath was apparent and then areas where it was not apparent. When I had come into the session, I had noticed that my sternum, “felt incredibly tight.” My movement coach noticed that I was not breathing into this area, and I had difficulty accessing my breath with her touch cue. “As soon as my movement coach guided me to release my jaw and part my lips, my upper lungs expanded. Instantaneously, a fullness that I was unaware of entered my body along with a release—a flush of lightness entered.” Sometimes change could be felt this
quickly; however, most of the time, change required a longer process or may not have become engrained in my body within the time span of this study.

During the eight week period of exploring my patterns of connectivity, I recognized my relationship to change. Change was happening in my life. Two of my close friends decided on and moved to different cities to start careers and be with their partners. During the week that I explored my head-tail connectivity, I reflected on my emotional response to my friends leaving writing, “I feel like I am being left behind.” This feeling of being left behind was familiar to me. The following week in my journaling about upper-lower patterning, I attributed this feeling to my early experiences of change, my brother being born and my dad leaving. These changes happened within the first five years of my life and were difficult for me to understand. I used the words uncontrollable, uncertainty, chaotic, and disregulating to describe these events in my journal. When my parents divorced, I remember becoming irritable and having some behavioral problems. This caused my mom to enlist the services of a counselor. While this helped at the time, major changes in my life seem to cause these early feelings about change to resurface.

Acceptance of change seemed to be stimulated from exploring my patterns of connectivity. During the data collection process, I found myself resisting change and feeling like I was being propelled forward. In these moments where change seemed overwhelming, I accessed my breath to help me regulate. Finding inner connectivity seemed to provide inner stability that allowed change to be less scary. Underlying the fear of change was an acceptance and excitement about moving forward with my life. In one journal entry, I wrote “change is growth. I am growing too—I just need to decide which direction I want to grow into.” By the body-half week, I came to realize, “I’m a planner, and I want to know what is going to happen. But I can’t know for sure if a relationship will work out, what my career will end up being, or
even how my thesis will end up being written. There is no way of knowing, and my recognition in this may be why my thoughts feel slowed today.” From these journal entries, it became clear that my thoughts about change were being re-patterned along with my body.

Mobility became the basis for stimulating my change that began at a body level during the data collection process. This is best exemplified in the connection between my legs and pelvis. I had a tendency to hold my pelvis and legs as one unit. This caused limited mobility. I first reflected on this during my exploration of breath and stated in my journal that “I began to feel an arcing movement at the end of my exhale (my psoas muscle engaging) which began to move my pelvis. This did not move my legs. They felt stuck and nailed to the ground” (Breath Week). While the legs are heavy, they can be initiated by breath and mobilize. Upon the suggestion of my movement coach, I utilized a pool during my core-distal week for self-exploration. The water helped take away the weight of the legs, and I felt how my breath could initiate my legs to “gently glide through the water to meet my torso.” In differentiating the legs from the pelvis during the core-distal week, “I noticed how my legs felt loose in the hip socket. It felt unstable but incredibly mobile and exciting.” I began to see excitement in the mobility of my body and change rather than feeling tense.

As I found mobility in my body, I also found mobility to move forward in my life with relationships, jobs, and my living situation. Within my life, this period of data collection was wrought with decisions about change. Most notably, I decided to change my own living situation. This became stimulated by outside environmental factors, such as my landlord wanting to know my living plans for the following year. However, my decision came to me when I was practicing my breath. “I felt like I was resisting the change, but logically it makes sense to move.” Since I have been unhappy in my current residence, I have the option to move and try to
find one that will be more satisfying. Finding my own inner connectivity helped provide stability and allowed me to make the change I needed.

Through the exploration process, change was an overarching theme. I attributed strengthening my inner connectivity and increased mobility to my ability to be open to new possibilities. As a whole, changes that happened on a physical level cultivated changes in other areas of my life. While these findings represent my experience with the patterns of connectivity, they can be generalized to others. Implications derived from these findings will be discussed in the following chapter.
Chapter 5: Discussion

Addressing the Research Questions

This research was conducted to answer the questions: What is the experience of a novice dance/movement therapist with the developmental patterns of total body connectivity? In addition during the exploration process, how do the patterns of connectivity impact her life? A secondary question of this research was: Do the psychological associations Hackney (2002) makes to the patterns of connectivity surface during the exploration process, and if so how?

Exploring the patterns of connectivity and re-patterning was not always easy, but the exploration allowed me to increase self-awareness, change or begin the process of change, and reconnect to my body and self. In this way, exploring the patterns of connectivity was transformational. The knowledge learned and change manifested allowed me to become more open to possibilities in my movement and life. The following sections will discuss my findings in relation to the questions about my experience of the patterns of connectivity, their impact on my life, and psychological relevance. While there are limitations to this study, these findings add to the current body of literature on the patterns of connectivity and provide implications for their use as a mind-body intervention and as a self-awareness and self-care tool for clinicians.

Experience. My experience exploring the patterns of connectivity was challenging, rewarding, and transformational. The themes presented in the results chapter of this thesis, body parts, vulnerability/support, present moment experience, resiliency, compassion, and change, help define my experience. Change can be seen as an overarching theme, as each of the other themes discusses how my body, mind, and interactions with the environments in which I was living were changed. Due to my previous associations with change, the process was challenging;
however, the change manifested resulted in increased self-awareness, openness to possibilities, and growth that was enriching and transformational.

Transformation was achieved through a comprehensive learning process about my body, thoughts, feelings, memories, and interactions with the world. I learned about my relationships to change, vulnerability, the present moment experience, and self-compassion. The outcome of this awareness is increased possibilities. Change is a process of mobility, which is exciting, fun, and presents new opportunities. Allowing myself to rely on my inner connections for support can help me to take risks in my life, whether this is in my profession, relationships, or movement. While I need direction in my life, I have also realized that anticipating the future causes me to miss out on opportunities in the present moment. In addition, finding self-compassion has taught me how to be with myself in ways that foster growth and love.

**Impact on my life.** My second question dealt with how exploring the patterns of connectivity may impact my life. Literature reviewed in the first chapter of this thesis suggests that changes made in my body and mind may create changes in my interactions with the world (Bartenieff, 1980; Cohen, 1993; Hackney, 2002; Olsen, 1998; Salemi, 2009). My findings support this body of literature. By exploring the patterns of connectivity and integration, I was able to build self-awareness and physical connectivity. Building the patterns of connectivity in my body allowed me to become aware and let go of tension that I was holding. I realized that I could find stability within myself instead of forcing stability by holding my musculature. By practicing yielding, I was able to find support from the earth and begin to take more risks by initiating movement from different parts of my body. This allowed support for interactions in the world. I found mobility in my movement that transferred over into my life and allowed me to find mobility for change. I was able to make the decision to move to a new residence and...
explored new relationships. Furthermore, I gained motivation for moving forward with my career. I began searching for jobs and visualizing myself as a dance/movement therapist. While I have had doubts about my choice in profession, this research reignited my passion and reinforced my belief in the power of movement.

While I am not currently practicing DMT, I project that my increased self-awareness will support me in my role as a dance/movement therapist. As a therapist, it is an important part of ethical practice to be self-aware. Therapists must make sure that their own baggage, judgments, thoughts, and motivations do not affect the therapeutic needs of the client. This does not mean that the therapist does not come into the counseling room as his or her self but that they have to be aware of how they are coming into the room. By being self-aware, therapists can determine when counter-transference comes into the therapy session, appropriate times to self disclose, and how to set up appropriate boundaries.

My increased awareness about change is one of the benefits that will assist me as a clinician. Through this process, I was surprised by my relationship to change. While I knew that change was not easy for me, I did not realize the extent that I resisted change. One of the main purposes of therapy is to create change, to some extent, whether it is in the client’s mood, behavior, thoughts, or awareness. As I enter into therapeutic relationships with clients, my new found self-awareness of how I can access stability through my inner connectivities will support me as I facilitate and witness change. I can use my awareness about mobility, vulnerability, and the present moment experience to allow change to unfold.

**Psychophysical relevance.** While not a main focus of my study, I became curious about whether the psychological associations made in relevant literature about the patterns of connectivity would surface during the exploration process. This was not a primary question, and
the research was not set up in a way that could determine if each pattern of connectivity correlated with the associations made to psychological development. The main focus was to learn about my experience with the patterns of connectivity and integration, and I did not want to limit the experience by concentrating on the associations that Hackney made. In revisiting the findings and data, it became clear that some of the psychophysical associations made did arise during my experience of the patterns of connectivity. This can be clearly seen in my exploration of core-distal, head-tail, and upper-lower.

During the exploration of core-distal, I began exploring spreading out to the world and returning to myself. This correlated with how I went out into my environment to begin new relationships and came back into myself for internal support as I dealt with the change occurring with my relationships. These findings support how the core-distal connectivity has been associated with the process of differentiation in psychological development (Hackney, 2002). I was able to reach out into my environment while still recognizing that I could return to myself for stability.

Hackney (2002) related head-tail patterning to the sense of self. During head-tail patterning, my journal entries reflected questions about my role as a dance/movement therapist. These questions were based on my sense of self and identity as a dance/movement therapist. I wondered whether this profession was right for me, questioned my capabilities, and explored ideas about where and with whom I wanted to work.

Upper-lower patterning is related to assertion, going out into the world, and accomplishment (Hackney, 2002). During upper-lower patterning, I began to see how I move out into the world. By not yielding and constantly going, I lost a sense of where I was reaching, which caused fatigue. Hackney related how the yield-push and reach-pull patterning allows
individuals to receive fulfillment in their tasks through a reciprocal relationship of giving to the environment and bringing back into the self. By just going, I was not being supported causing me to reach out without direction and purpose.

In addition, the five to seven inches in the scapular region that Hackney (2002) identified as a common holding pattern was apparent in my body. Hackney related this pattern of holding to a sense of invulnerability. I would not say that I am invulnerable; however, in journaling and discussions, this holding pattern became related to trying to protect myself from getting hurt.

Looking back at my questions about the psychological associations to the patterns of connectivity, I realize that they stem from my wavering confidence in the DMT profession and questioning the mind-body connection. While I understood the theories behind the mind-body connection and have even seen it in action during my internship positions, I still seemed to lack acceptance of the term. Perhaps one of the challenges of this research, for me, was coming to embrace the mind-body connection. Research by Jeong et al. (2005) and literature reviewed by Berrol (1992), Hannaford (2005), and Siegel (1999) show scientifically sound evidence of the mind-body connection. However, the culture in which I grew up embraced the medical model that treats ailments in the mind and body separately (Goodill, 2005). I believe I was able to embrace the mind-body connection, which I already conceptually understood, through my experience and deepened awareness of vulnerability. While it felt vulnerable for me to listen to my body, I became more comfortable connecting to my body and gained an understanding that doing this does not have to be a huge feat that feels ungrounded. In addition, my fears about entering the DMT profession decreased as I learned to connect to my body even more.
Connecting Back to the Literature

The findings from this research support literature on how the mind, body, and interactions with the environment can be changed by working with movement and the body. Hackney (2002) created a structured way of re-patterning the body by working through developmental patterns of connectivity. Through re-patterning, Hackney discussed how more mobility and efficiency in movement can be achieved. In the process of data collection, I explored each pattern of connectivity and integration. During this time, changes in my body’s connections were recorded on MACS (see Appendix B and C). While my physicality remained unaltered, change was experienced through my ability to utilize connections in my body to create movement. In reviewing the video from my first and last movement session, I observed differences in how my movement was initiated, used space, and seemed to fill my whole body.

At the same time, change was happening in my mind. Literature based on the mind-body connection supports how changes within my body could also be made in my mind. The mind and body should not be seen as separate. The process of taking in information and responding to it requires active participation between the mind and body. Human development and learning is based upon the interaction between the mind and body. Hannaford (2005) discussed how movement stimulates brain activity by creating new neural firings in the brain. Thus the findings from this study support how the mind-body connection and how movement can be an inroad to change in the mind. Within my process, changes within my mind could be seen in the emergence and reprocessing of memories and the changing of thought processes. In my journal entries, I wrote about how ideas and thoughts raced through my mind. By working with the connectivities and integration, I began to yield and ground myself. Similarly, my thoughts became grounded as
evidenced by my ability to put anticipation for my future in perspective by focusing on the present moment.

The changes that happen in the mind and body affect how an individual interacts with the world. Hackney (2002) and Bartenieff (1980) believed that by forming inner connectivity at a body level individuals could gain better outer expressivity. Embodiment theorists embrace the fact that not only are the mind and body connected but they are in reciprocal relationship to the environment. Individuals respond to interactions within their environment, which creates neural firings in the brain that eventually develop into neural networks (Hannaford, 2005; Siegel, 1999). These networks inform how humans learn, develop, and respond to the environment making a person who they are. By working through patterns of connectivity and integrating them, I found that there was a larger meaning to my movement than just moving through space. I discovered how my movement reflects my inner activity and interactions with the world; and furthermore, how my movement can change my interactions. I discovered support in my body and re-conceptualization of ideas in my mind that supported changes in my interactions with the world.

As stated previously, literature on the patterns of connectivity is limited; however, Salemi (2009) supports the findings in my research about releasing tension and finding self-compassion. Within my study, I found that I experienced and formulated self-compassion. Salemi found similar results in her heuristic study on teaching the patterns of connectivity and integration to clients with brain injuries. Salemi wrote: “when I encouraged them to coordinate breath with the movement of their bodies, I noticed even more softening and ease within their movement.” (p. 72). Her clients were able to release tensions, and Salemi went on to describe how her clients gained compassion for their injuries by learning the patterns of connectivity.
Limited research has been conducted directly on the patterns of connectivity, and no other research was found that studies an individual’s experience with re-patterning. This research builds upon literature currently written on the patterns of connectivity and total body integration by providing perspective on the experience from one novice dance/movement therapist. As is the common practice in heuristic research, the findings from this study may be generalized to others (Moustakas, 1990). Others may find that the themes described in this thesis surface during his or her re-patterning process. These themes may appear differently as each person has unique histories and experiences; however, by looking at my experience, others may benefit from seeing how these themes unfolded. Re-patterning can be a transformational process, but transformation is not always easy. My difficulties with accepting change and vulnerability is one example of how re-patterning and transformation can be challenging. In addition, as others coach or re-pattern, the value of my experience with self-compassion and recognition of resiliency can provide encouragement.

**Limitations of Study**

One of the limitations of this study is that it relied upon the subjective experience of the researcher. As both the researcher and participant, data may have been influenced by my own motivations to create a thesis. While this was not consciously done, there is still a possibility that at some unconscious level my journals and data analysis were swayed by my dual roles in the study. In addition, I had previous experience with the patterns of connectivity and integration, which motivated this phenomenological study. As encouraged by Moustakas (1994), I assessed and recognized my biases that were formulated from my previous experience learning this information in relation to DMT. By doing so, I hoped to bring a clear mind and new focus to the data collection process; however, it is impossible to wipe out the extensive knowledge that I
already had about the patterns of connectivity. This is a limitation to the study, and I feel that it would be beneficial to study the experience of the patterns of connectivity and integration on a participant who did not have previous knowledge or experience with them. With this type of study, clearer findings may be found, particularly on psychophysical associations made to the patterns of connectivity.

Another limitation of this study is that there is no way of knowing for certain how the patterns of connectivity impacted my interactions with the world and life. Change at a bodily level, as documented on MACS throughout the exploration process, clearly came from exploring and practicing the patterns of connectivity, but I made the correlation that the patterns of connectivity contributed to changes beyond that made in my body. Literature reviewed in the second chapter of this thesis based on the patterns of connectivity, mind-body connection, systems theory, and embodiment theory supports this. In addition, some themes derived from the data clearly had progressed throughout the exploration process. Most notably, my ability to access the present moment experience could be seen transitioning from my movement experiences into my thought process and life. However, other themes relating to change in my mind and life are more difficult to validly link to the exploration of the patterns of connectivity. Changes within my mind and life could have been caused by other stimuli unrelated to re-patterning. For example, the fact that two of my friends moved away certainly played a role in my exploring new relationships. Other stimuli, unbeknownst to the researcher, may have also contributed to other findings. However, from my standpoint, this did not seem to be the case.

Immersing myself in the patterns of connectivity profoundly changed sensations in my body. These are difficult to describe; however, even waking up in the morning, I felt more whole, alive, present, and willing to interact with my environment. According to Bernstein
(1984), “being in an embodied relation to the self means staying connected to a powerfully calm experience of inner wholeness” (pp. 333-334). Through the exploration of the patterns of connectivity, I was in an embodied relationship with the self. I deeply investigated my patterns of connectivity, which relate to the development of my movement, perception, and self (Bartenieff, 1980; Cohen, 1993; Hackney, 2002). Salemi (2009) quoted Shawn McNiff, an art therapist, who said, “In art, the discovery of the wholeness of something is transformative” (p. 79). Theoretically my mind, body, and world would be impacted by exploring and integrating my connectivities. Changes in my life may have occurred whether I explored the patterns of connectivity or not; however, my responses to the changes in my life were affected by the transformative nature of the exploration process in which I was immersed. While the data may not be able to make this direct link because of the holistic nature of the patterns of connectivity and complexity of the systems documented, this exploration allowed me to respond to environmental stresses and stimuli in new and different ways.

The intensive nature of this research design may be considered a limitation. By focusing every day on the patterns of connectivity, the process caused stress and interfered with my normal daily life. While the process was rewarding and changes were seen, it may be beneficial to see how the patterns of connectivity are experienced under less rigorous demands of the research design.

**Other Considerations**

During the data collection process, it became clear that I was not ready to move on from exploring upper-lower patterning. Due to the structure of my study, I moved on to explore body-half. Had this research not been designed in this way, more time would have been spent re-patterning this connectivity. As each pattern of connectivity develops based on previous
connections, my future connectivities and integration may have been negatively affected. My movement coach witnessed that my improvisation around integration incorporated more of my movement from the first three patterns of connectivity. Therefore, it should be noted that full connection and immersion may not have been achieved for body-half, cross-lateral, and integration. While my experiences of exploring these patterns are still valid, fuller embodiment of these patterns may have provided better insight into their impact on my life.

From this experience of moving on before I was ready, information can be learned about doing the same with a client. When or if re-patterning is being used as part of DMT, time must be given to achieve the developmental tasks required. Cohen (1993) stated, “A child who is rushed through the developmental sequence has to compensate too much” (p. 112). Likewise, a client who is rushed to develop patterns of connectivity when they are not ready may also compensate. Even though one pattern of connectivity may be improved, compensation may be made in other patterns in order to make these improvements. Literature reviewed in the second chapter of this thesis speaks about the importance of working within systems. As this research has come to full fruition, the value of this information can be seen. Changes must be integrated into the entire system of the individual who is re-patterning.

From this experience, the importance of providing a balance between achievable and challenging movements was also found. The movement phrase that was incorporated as part of this research design did both. Naval radiation, running, and twisting around my vertical axis while standing were movements that were familiar and simple to me. Several times throughout the data collection process, I wrote in my journal about how simplistic the movements seemed. This was particularly evident at the beginning of the data collection process; however, towards the end, I appreciated being able to practice the patterns of connectivity within simplistic
movements that provided clarity to the complex connections that were happening in my body. Bartenieff (1980) also stated how deceptively easy the basic six exercises were. While the movements appeared simple, the connections needed to execute the exercises with efficiency were complex. More complex movements, like spiraling into the floor and leaping on a diagonal, were used to challenge me. While Cohen (1993) talked about facilitating the development of a child, she said, “there needs to be a blend and balance between the child’s perceptual input for future movement development, and the experience of active movement in and out of postures and activities that the child can do on its own” (p. 112). Thus the concept of challenging while still instilling confidence in a client’s movement is important.

From my experience, the emergence of emotion and memories was also triggered by working with the body. While working with the pelvis, I had an emotional response to releasing tensions. In general, the pelvis is seen as a sensitive area as it holds the reproductive organs and center of gravity. As the body is being re-patterned, it is important to understand how the body can hold implicit memories and emotion. Siegel (1999) claimed that the body plays a part in the dynamic processing of emotions “though bodily feedback occurs even without awareness” (p. 143). In addition, “experience establishes learned associations between external stimuli and these bodily responses” (Siegel, p. 144). Networks within the brain and body are learned through experiences. For this reason, emotional responses, that feel real, may be triggered by stimuli that remind the individual of a past experience with the emotion. The same type of process is true with memories. Thus working with emotion, feelings, and memories that emerge during the process is important. Cohen (1993) stated, “As an adult, one’s compensatory patterns are also deeply woven into the emotional and thinking patterns, and need to be acknowledged and validated” (p. 100). As memories and emotion arise in the process of re-patterning, they should
be addressed to make sure that further compensation is not sought in order to hide parts of the emotional self. This also speaks to the sensitivity needed in working with the body in DMT.

**Summary**

The research conducted answered the questions: what is my experience with the developmental patterns of connectivity, and what impact did they have on my life? Findings showed that by exploring the developmental patterns of connectivity changes happened in my movement, thoughts, feelings, and interactions with the world. The findings were organized into themes about my experience of body parts, vulnerability/support, present moment experience, resiliency, self-compassion, and change. Change was made in my bodily connections; however, it was also made by bringing awareness to previous experiences where change left me feeling uncertain and chaotic. By utilizing mobility found in movement, change within my life was supported and made. I built awareness of particular parts of my body where I hold tension, and found associations to why these holding patterns occur, including insecurities in body image or an attempt to protect myself. While the process of re-patterning caused me to feel vulnerable, I found that I could rely on my inner connections and yield through the ground for support rather than using my musculature. My relationship to vulnerability shifted and allowed me to begin exploring growth within my profession and relationships. By exploring the patterns of connectivity, I was able to access the present moment experience and calm my anticipatory thoughts for the future. Recognition of resiliency and cultivation of self-compassion were also achieved.

**Implications for Future Research**

Re-patterning does not necessarily have to work in conjunction with DMT. However, this research allows a new perspective on how the patterns of connectivity can be used as a mind-
body tool in DMT. Based on this research, implications can be made that working with the patterns of connectivity in a DMT setting can help create change in clients and provide valuable self-awareness to clinicians about body preferences, body prejudices, and self-care.

**In DMT practice.** This research implies that the patterns of connectivity may be an effective mind-body assessment and intervention in DMT. Gray (2001) made the connection to how patterns of connectivity can be affected by trauma. According to Gray, symptoms of trauma are seen in the body and movement, which “may include difficulties in the successful performance of early developmental movements broadly defined as the sequencing of basic neurological actions. This reflects the disruption of the basic organization of the individual” (p. 33). Working with the body through re-patterning may be an effective holistic intervention for addressing disruptions to the basic organization of an individual and creating congruency between the mind and body. Changes within the body will also create changes on multiple levels of the individual. With this being said as stated previously in this discussion, sensitivity towards how emotions and memories are stored in the body must be utilized when working with the body in re-patterning and DMT. When trauma happens, unconscious resurfacing of traumatic memories may re-traumatize an individual (Gray, 2001).

Often times, dance/movement therapists use various counseling theories and frameworks to supplement and support DMT theories. From this research, suggestions can be made that developmental and IFS counseling frameworks complement the use of the patterns of connectivity in DMT and counseling. As the patterns of connectivity are based upon developmental movement, it only makes sense to put them within a developmental framework. The body, mind, and interactions with the world help to create the self, which is a major tenet in developmental psychology and the patterns of connectivity.
In addition, IFS is a counseling framework that utilizes a systems theory and may align well with the holistic approach of the patterns of connectivity. According to Twombly and Schwartz (2008), “IFS emphasizes the normal multiplicity of the mind” and “working within the networks of internal relationships” (p. 295). IFS theorists believe that each individual is made up of various parts and has a Self that is comparable to a soul. The Self can lead the various parts of a person and has the ability to heal. When a person is hurt, the parts begin to distrust the Self and overtake. “In IFS treatment, the client’s Self is accessed and begins to relate to the parts in loving ways that lead to their unburdening the emotions and beliefs that accrued from negative life experiences” (Twombly & Schwartz, p. 300). Through the IFS framework, counselors work to differentiate parts of the self and bring them into relationships. This is exactly what the patterns of connectivity and integration do through the use of movement and the body.

For clinicians. Dance/movement therapists may benefit from the exploration of the patterns of connectivity. Martin (2000) recommended that therapists seek their own therapy. By doing so, therapists can, “feel what it is like to be deeply understood to feel the release of saying things that have choked and haunted for years, to face the pain of looking at ourselves and feeling clearer and cleaner afterward” (p. 115). Therapists can gain a clearer and more congruent self but may also learn about clients’ experiences of being in therapy. This has shown to increase therapists’ empathy (Martin). While the process of re-patterning is not therapy, dance/movement therapists may benefit from exploring the process for similar reasons, to build an understanding of clients’ experiences working with the body and gaining self-awareness.

Dance/movement therapists are encouraged to become aware of their own body prejudices and movement preferences. Through the vocabulary that Laban created, movement can be observed and categorized. From this categorization, a clearer assessment of an
individual’s preferred movement styles can be determined. North (1995) stated that preferences for certain movements over others in not uncommon. Preferences of one movement style over another can lead to body prejudice. Moore & Yamamoto (1988) defined body prejudice as, when an “automatic interpretation of movement causes us to misjudge a situation and/or other people” (p. 88-89).

When entering therapy sessions, dance/movement therapists can benefit from knowing the ways in which their own preferences and body prejudices cause counter-transference and impact interactions with clients (Harris, 2008). Biernat (2000) stated:

In the event the dance/movement therapist is unable to differentiate between her/his own issues and those of the client, s/he may impose movement on the client in an effort to release tension or express a feeling…When this occurs, empathic reflection is lost and the client can begin to feel rejected or pressured to perform for the therapist. In either case, the therapist has lost the ability to develop mutuality with the client, as well as the opportunity to share and understand the clients feelings (p. 34).

For example when starting this research exploration, I had difficulty and resistance toward initiating movement in my pelvis. This may or may not affect my interactions with clients who are comfortable with this type of movement; however, being aware of my difficulty with this type of movement can allow me to observe and facilitate a client’s movement without prejudice. My exploration process provided me with rich knowledge and awareness of my own movement preferences and body prejudices. Other dance/movement therapists may benefit from exploring a similar process.

This research offers an additional perspective about the role patterns of connectivity play in humane effort. Humane effort “can be described as effort capable of resisting the influence of
inherited or acquired capacities. With his humane effort man is able to control negative habits and to develop qualities and inclinations creditable to man, despite adverse influences” (Laban, 1988, p. 13). While Laban specifies effort or exertion as a key component to humane effort, the body is the vessel from which exertion is created. When disturbances are present in the body, this creates challenges to outward expression and exertion. Laban claimed, “It may be repeated that effort, with all its manifold shadings of which the human being is capable, is mirrored in the actions of the body. But bodily actions performed with imaginative awareness stimulate and enrich inner life” (Laban, p. 80).

Within DMT, being able to put on different movement qualities allows the therapist to empathize with the client through mirroring movement. Within this study and the concept of developmental movement, Cohen (1993) stated that by opening up new patterns “one can just play more kinds of melodies, or different kinds of verse, kinds of timbre” (p. 100). Therefore, opening up connections in the body allows for more possibilities, and “the more neurological pathways that are established in the body, and the more basic integration it has, the easier it is to express the multifacetedness, the wider and more breadth and depth will be the possibilities for expression and understanding” (Cohen, p. 100). With more possibilities, dance/movement therapists have more choices in how to respond and relate to clients.

Implications can also be made about using the patterns of connectivity and total body integration as a self-care modality. Through the findings of this research, it was discovered that body awareness was heightened. Increased body awareness can assist therapists in identifying how interactions with clients are affecting them. Rothschild (2006) discussed how therapists can prevent compassion fatigue, burn out, and vicarious trauma by noticing the first signs through bodily awareness of arousal. Rothschild suggested exercises to assist with identifying somatic
empathy, counter-transference, and projective identification, which can lead to increased risk of burn out. Starrett (2010) discussed utilizing the chakras and yoga for self-care and made connections between yoga and the connectivities. Yoga has long been used to help regulate the autonomic nervous system. Thus implications can be made that the patterns of connectivity may be a helpful modality for self-care and regulation.

Findings from this research discussed vulnerability in relationship to finding support and interactions with the world. Rothschild (2006) stated, “For some it is very difficult to grasp the concept that feeling vulnerable does not necessarily increase availability and connection. Sometimes it actually provokes the opposite, withdrawal and restriction” (p. 129). Rothschild suggested exercises to increase body armor to help regulate a therapist’s autonomic nervous system when working with clients to prevent burn out, compassion fatigue, and vicarious trauma. Maintaining boundaries is important in the therapeutic relationship and allows security and trust to form (Rothschild, 2006). While my findings showed that vulnerability positively supported my interactions with the world, I was not a practicing therapist. However, vulnerability was formed alongside finding stability and support through inner connectivity and yielding. In this way, perhaps finding inner connectivity and internal support would be a more affective form of self-care and boundaries for therapists.

**Further research questions.** Further research on the patterns of total body connectivity is needed. Through this research, it has been seen that the patterns of connectivity provide a holistic approach to cultivating change, growth, and development. Clinicians and clients alike can benefit from the patterns of total body connectivity by building self-awareness, releasing tension, finding support, experiencing the present moment, efficiency in movement, understanding resiliency, and self-compassion. From this research, I continue to have curiosities
and questions about the patterns of connectivity. These further questions may further the body of research, knowledge, and use of this modality within the DMT profession. Questions include:

How are dance/movement therapists currently using the patterns of connectivity in DMT practice? Are there common trends of disconnection seen in the patterns of total body connectivity with varying mental disorders? What counseling frameworks align well with the patterns of connectivity? What are the experiences of others who have no knowledge of the patterns of connectivity in re-patterning? Do the patterns of connectivity correlate to the developmental stages of psychophysical development? How effective are the patterns of connectivity as a self-care modality for clinicians?
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Columbia College Chicago.


Appendix A

Definition of Terms

**Bartenieff fundamentals.** Hackney (2002) defined Bartenieff fundamentals as, “an approach to basic body training that deals with patterning connections in the body according to principles of efficient movement functioning within a context which encourages personal expression and full psychophysical involvement” (p. 31). This approach to body training consists of the six fundamental exercises (also termed the basic six) and several principles.

**Body.** According to Goodill (2005), the body is arbitrary because of the difficulty actually distinguishing between the mind and body as they are connected. For the purpose of her work, Goodill determined “functions of the body encompass physiologic, kinesiologic, neurologic, hormonal and immunologic systems” (p. 23). For the purpose of this thesis, this definition of the body will also be used.

**Dance/movement therapy.** According to the American Dance Therapy Association (ADTA), dance/movement therapy is, “the psychotherapeutic use of movement to promote the emotional, cognitive, physical, and social integration of individuals” (American Dance Therapy Association, 2010). Dance/movement therapy utilizes the concept that the mind and body are connected. Change created at a body level will manifest change in the mind as well (Goodill, 2005).

**Fundamentals of movement.** Peggy Hackney (2002) clearly defines three fundamentals of movement: change, relationship/connection, and patterning body connections. These things are found and can be found in movement to help create, “a lively interplay with our world” (Hackney, p. 17).
**Fundamental patterns of total body connectivity.** Fundamental patterns of total body connectivity are connections made within our bodies through patterns or habitual movement that develop through our neuromuscular system. These patterns develop as an individual matures and include: breath, core-distal connectivity, head-tail connectivity, upper-lower connectivity, body-half connectivity, and cross-lateral connectivity. According to Hackney (2002), each of these patterns is based upon relationships with his or herself and environment. When a pattern is “not achieved, the individual will develop compensatory patterns that might not effectively support the next stage of development and may lead to either physical or psychological problems later on” (p. 13). At times within this document, abbreviations are used to refer to the patterns of total body connectivity. These abbreviations are interchangeable and reflect common terms used by scholars, practitioners, and students when working with the patterns of total body connectivity. Abbreviations used within this document include, body connections, body organization, connectivity, patterns of connectivity, patterns, and patterning.

**Improvisation.** For the purpose of this study, improvisation means allowing inner impulses to guide movement exploration.

**Mind.** According to Goodill (2005), the mind includes functions of, “thinking, communication, internal behavior, beliefs, attitudes, relationships, social processes and expression of emotion” (p. 23).

**Total body integration.** Total body integration is the wholeness achieved after differentiating each fundamental pattern of total body connectivity and reassembling them in connection and relationship to one another. Hackney (2002) stated, “integration maintains the integrity of the ‘integers’ and brings them into a participatory whole” (p. 16). During this study, each pattern of connectivity will be differentiated with hope of further interconnecting and
integration. Hackney found that, “as we claim the full development of our bodily connections through movement patterns, and recognize the role they play in forming who we are as feelingful, spirited, thoughtful human beings, we will increase our options for a lively interplay with our world. We will feel more alive” (p. 17).

**Re-patterning.** Re-patterning is building awareness and change in previous patterns of moving by differentiating the patterns of connectivity and integrating them into a cohesive whole with the goal of achieving efficiency and harmony within the body.
### Appendix B

#### INITIAL AND FINAL MOVEMENT ASSESSMENT CODING SHEET

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Where in the body do you see tension or movement being held?
Appendix C

WEEKLY MOVEMENT ASSESSMENT CODING SHEET

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