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DEVELOPING A DANCE/MOVEMENT THERAPY APPROACH
TO QUALITATIVELY ANALYZING INTERVIEW DATA

A DISSERTATION

Submitted by

TOMOYO KAWANO

In partial fulfillment of the requirements
for the degree of
Doctor of Philosophy

LESLEY UNIVERSITY
GRADUATE SCHOOL OF ARTS & SOCIAL SCIENCES
May 21, 2016



Lesley University
Graduate School of Arts & Social Sciences
Ph.D. in Expressive Therapies Program

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TO QUALITATIVELY ANALYZING INTERVIEW DATA

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ABSTRACT

The objective of this research was to develop a model for an embodied-artistic approach to analyzing interview data that could contribute to an enhanced narrative account and/or offer an alternate perspective. A new model was formulated by adapting and/or critically applying a combination of previously developed analytical frameworks. Dance/movement therapy (DMT) skills that encompass ways of listening through an embodied, empathic, aesthetic manner; and a movement observation and assessment tool, Laban Movement Analysis (LMA) were at the core of this explicatory process. The researcher's movement preferences were identified in the *preparatory* phase with a certified movement analyst (CMA) as a source for reflexive knowledge. Interviews were conducted with two subsets of dance/movement therapists ($N = 6$) to: (a) develop the approach in the *induction* phase ($n = 3$); and (b) test the approach in the *validation* phase ($n = 3$). In the induction phase, the video footage of the dances was shared with a CMA and the participants for peer review. The approach was revised. In the validation phase, this new model was tested with a different subset of dance/movement therapists ($n = 3$). The analysis was inherent in the process of dance creation. The findings highlighted that interpreting interview data through a dance brings forth the researcher's values, biases and intersubjective phenomenological experiences. By moving, emotional resonance and dissonance were brought to the fore. The agreement between researcher and participant on the essence of what was communicated in the dance appeared to be determined by a shared aesthetic and emotional consensus. Additionally, the dance analysis articulated the participants' aspirations and ideas about themselves that they had not verbalized in the interview. The relational and aesthetic focus of the dance approach can reveal intent, justification, and feelings of purpose that would not be discovered through traditional content analysis of written transcriptions. The complex nature of

the experience is reflected in the aesthetics with emphasis on the relational manner in which meanings emerge.

CHAPTER 1

Introduction

Arts-based research (ABR) is a facet of a growing trend that uses the creative process to produce, examine and communicate scientific findings (Hervey, 2000). It is “a process that uses the expressive qualities of form to convey meaning” (p. xii); and “the conscious pursuit of expressive form in the service of understanding” (Barone & Eisner, 2012, p. 7). Born out of a need to meet the changing objectives of research, artistic approaches challenge the dominant discourse in academe regarding *how* and *what* one can know (Parviainen, 2002). Having its origins in the “tradition of participatory, critical action research based on an ethics of human relationships” (Finley, 2003, p.281), much of ABR is interdisciplinary and collaborative. Unlike the epistemological perspectives of positivism and post-positivism, in which an interpretation of a worldview must be explained and represented based on data which substantiates it to the fullest extent, the body-based and artistic approaches utilize the arts to expand what can be known about a complex phenomenological experience and elicit multiple meanings (Sullivan, 2010).

Leavy (2015) has credited the creative arts therapies (CAT) regarding the use of arts to elicit information and implement assessment in research. She views both artistic and research practices as ‘crafts’ that “compose, orchestrate, and weave” (p.18). Having developed within pre-existing frameworks of humanistic, psychoanalytic and other psychological theories, the field of CAT encompasses both perspectives of the social sciences and the arts. Yet, “These bodies of literature have not overlapped to a great extent, and so the significant contributions of art therapy to ABR haven’t always been fleshed out” (Leavy, 2015, p. 16).

In social science research, interviews are used commonly to elicit and collect qualitative data (Ryan & Bernard, 2000). Meaning is ascribed to such qualitative data, which in of itself

“cannot be understood without reference to the meanings and purposes attached by human actors to their activities” (Guba & Lincoln, 1994, p.106). A method of analysis is then selected purposefully to ensure maximum discovery of themes and relationships pertaining to the objectives of the research (Bernard, 1996). Traditionally, such analysis techniques have been text-based. The description or interpretation of an interview was being made based on written, verbal transcripts. Increasingly, however, artists and social scientists are pursuing non-text-based, symbolic and/or embodied techniques (Boydell, 2011; Gilligan, Spencer, Weinberg, & Bertsch, 2003; Gwyther & Possamai-Inesedy, 2009; Hervey, 2000; Keen & Todres, 2007; Tantia, 2013; Wadsworth, 2016). While many arts-based scholars have merged arts into various phases of research, few have described purposefully analyzing interview data through an aesthetic or embodied practice.

Given that interviewing is a dialogic and evolving process – what one says or feels free to say is relationally dependent on what is being asked and what the interviewee is willing to share within a particular context – it seems particularly suited for creative arts therapists to utilize their relational skills. In addition to empathic “intersubjective relational qualities” (p.22) of therapeutic work, expressive arts therapist, Kossak (2012) has likened the process of making art and/or inquiry through the arts to how arts-based therapists come to ‘know’ about the human condition. He raised the “principles of play, improvisation, aesthetics, space, time, rhythm and mind/body or embodied connections” (p.22) as integral to artistic enquiry.

In the field of dance/movement therapy (DMT), Hervey (2000) has promoted artistic inquiry, which term she used interchangeably with ABR, as “a form of research compatible with the value and skills of dance/movement therapists” (p.3). She compared the healing process to the integration of research knowledge through the choreographic process. Similarly, Leavy

(2015) raised that, as a discipline, dance and ethnographic research methods share similarities in “the process of choreography and the use of improvisation” (p. 156). Beyond the process of dance improvisation and choreography, DMT and dance as an art-form share other qualities that may benefit research. Sheets-Johnstone (2011), for example, raised introspection through movement as critical to phenomenological studies. Although expression and communication are vital for both dance and DMT, the main distinction between the two may be in the relational emphasis and how meaning is made.

With roots in modern dance, the theoretical underpinnings of DMT value the body’s cognitive, affective processes and relational, aesthetic movement expressions. Attending to bodily sensory experiences allows for a therapist’s empathic involvement “in an intersubjective experience that is rooted in the body and work towards a resolution” (Koch & Fischman, 2011, p.62). Dance’s triangular relationship between expression and communication is mediated intersubjectively between the client and therapist through the aesthetic process of improvising and/or simultaneously creating a dance.

Analogous to how performance ethnographers view aesthetics as “inseparable from lived experience, and the imaginative work of meaning-making” (Denzin & Lincoln, 2011, p. 320), expressive arts therapists make meaning through an imaginative dialogical process (Knill, 1994). In this context, improvising and creating a dance are simultaneously a way to develop relationships and make meaning together. Hence, in addition to dancers who may express a unique understanding of a phenomena by paying attention to patterns and rhythms that allow for an alternate, nonverbal input of experience, as clinicians, dance/movement therapists attune to the interpersonal and other relational (e.g. environmental) dynamics that are present. It follows

that a dance/movement therapist-researcher may be inclined to make meaning together with the participant empathically and reflexively through an aesthetic, developmental process.

Hervey (2000) defined a creative methodology as a process “of dynamic movement toward some movement or product and can range from visibly active to quietly internal” (p. 60). She pointed out how, similarly to therapy, the creative process cannot be controlled, and its conditions cannot be replicated. Dance/movement therapist Meekums (2002) summarized the creative process, not only in dance choreography and CAT, but in science and research as a spiral of: preparation, incubation, illumination and evaluation. The preparation stage is akin to DMT’s warm-up phase, most evident in a Chacian session. The incubation stage is when symbols and metaphors emerge from spontaneous movements of the individual and groups. Illumination is where meaning is made from the raw expression of emotions from the incubation stage verbalized or reflected in hindsight. The evaluation stage is the ending stage where therapist-researcher and client-participant review and debrief on the therapeutic and/or research activity that took place. As dancer-researchers, dance/movement therapists can integrate both art and social science perspectives to interpret and theorize dance as a meaning-making process – reflexively, in relationship to oneself, to others, and to the environment.

One of the defining techniques of DMT pioneer Marian Chace is used to do exactly this. ‘Mirroring’, known also as *kinesthetic empathy*, as coined by Miriam Berger (Cruz, 2012) is a bodily reflection of the client’s movement through the therapist’s own body. It is an intuitive, embodied skill that dance/movement therapists incorporate in their practice to enhance relationships with their clients. On a similar note, countertransference responses for the psychoanalyst and psychodynamic therapist can be translated into somatic countertransference responses for the dance/movement therapist (Caldwell & Johnson, 2012). Attending to these

embodied – sensory-affective-cognitive – responses can be applied in the research process as a way to clarify where and how the researcher is situated in relation to his or her participants.

Listening is another essential tool among practitioners in the mental health counseling field that can be applied to research. For dancers and dance/movement therapists, for whom the body is the primary mode of communication, listening may be both ‘to hear’ and ‘to feel’. The observation and assessment of client and therapist’s body movement is “the counterpart of ‘listening’ by traditional verbal psychotherapists” (Cruz, 2006, p.133). Movement observation is an extensive part of DMT training. Laban Movement Analysis (LMA), for instance, is a multidisciplinary movement analysis framework that is used widely among dance/movement therapists, actors, physical therapists and neurologists (Groff, 1995) to derive meaning from direct observations of movements both clinically and in research. An embodied form of listening using DMT skills and LMA can guide the epistemological and methodological evolution of embodied and artistic forms of creative arts therapies (CAT) research.

Hervey (2000) delineated three concepts specific to artistic inquiry:

1. Dance-making (or any art form) to collect data, dance-making to analyze data, and/or dance to present the findings.
2. Acknowledgement and description of the researcher(s) creative processes.
3. Aesthetic values of the researcher(s) that inform decisions and shape products made throughout the research process. (p.7)

Artistic knowledge is embodied, technical and has the phenomenological dimension of expressivity. This has compelled some artist-researchers to portray embodied, artistic knowledge as a concept that cannot be communicated. Steeped in the world of speech and writing, multimodal communication through the arts in research is still relatively novel and under-

examined (Hervey, 2012; Koch, 2006b; McDonald, 2013). Koch (2006b) raised that, while developments in tools have advanced the analysis of verbal and nonverbal communication research, “[a]pproaches focusing on movement dynamics are missing almost entirely” (p.115). Taking this one step further, Hervey (2012) expressed that the value of embodied approaches in ABR has not yet been “explicitly articulated” (p. 206). Leavy (2015) proposed that “a systematic exploration of arts-based practices can lead to a refining of the work some qualitative researchers already do” (p.18).

This is particularly important for dance, in which verbal script is generally not used and even a narrative depiction (e.g. *The Nutcracker*) can be abstract (Leavy, 2015). Although various CAT scholars have integrated the arts into research (Brown, 2008; Karcher & Caldwell, 2014; Franklin, 2012; Hervey, 2000; 2012; Sajnani, 2012a), formal systematic arts-based methods have been developing largely through interdisciplinary collaborations in education (Cancienne & Snowber, 2003; Knowles & Cole, 2007) and healthcare fields (Keen & Todres, 2007) outside of CAT (Kossak, 2012). Only a handful of creative arts therapists have attempted to develop systematic approaches to inquiry based on specific practices such as *Focusing* (Tantia, 2013); and *Rocky Mountain Alba Emoting* (Wadsworth, 2016) and articulate what can be discovered beyond words.

While it is impossible to cover every viewpoint, rigor in ABR must nevertheless be evident. The academic discourse with regard to the quality of standards in arts-based representations of knowledge has been scant. Finley (2003) cautioned that the standards for narrative and artistic forms of research need further probing “marked by equivocations and conspicuous ambivalence for the task of establishing quality guidelines for narrative forms borrowed from the arts and humanities” (p.284). Analytic structure can help sustain focus in the

process of creating meaning. The question for a dance/movement therapist-researcher then, is: “How can one develop a model that values DMT practice to make meaning – as an approach to interpret and transform textual data – in research?” Discerning *how* and *what* dance/movement therapists can know and communicate is essential for determining rigor and its application in research. Moreover, inserting DMT principles into research methodologies beckons reexamining the axiology – ethical and aesthetic value to humanity – of this type of knowledge.

Background and Context

The role of research in DMT is being increasingly emphasized by scholars in the field. In addition to the obvious ethical purposes of informing and advancing clinical skills (Cruz & Berrol, 2012; Koch, Kunz, Lykou, & Cruz, 2014; Mala, Karkou, & Meekums, 2012), cultivating arts-based approaches specific to dance (Brown, 2008; Hervey, 2000) and becoming visible as a profession (Meekums, 2010; 2014) are the imminent undertakings for DMT practitioners. These are not without challenges. DMT is a practice that derives its theory and method by focusing on the knowledge of the body. These include: “bodily felt sensations, the use of the breath to mobilize action and expression, and understanding how the breath plays a role in nonverbal communication and within the therapeutic relationship” (Goodill, 2009, p. 266). These types of experiential and presentational knowledge are generally deprecated within the culture of academia, where theory and reason are privileged over practice (Sajnani, 2015; Spatz, 2015).

Early on, dance anthropologist Hanna (1979) surmised that “The social scientists’ long-standing avoidance of dance can perhaps be explained by a combination of Puritan ethics, social stratification, concepts of masculinity, and a sense of detachment from nonverbal behavior” (p.9). In the US, social dance was targeted on and off since the 1890s until the 1960s by “primarily white, male Protestant clergy ... [who] denounced dancing on moral and spiritual

grounds” (Wagner, 1999, p.24). Wagner’s (1999) extensive hermeneutical study of 350 texts traced the history of the “adversaries of dance” to narrow interpretations of biblical texts (p. xiv). She found that relative to music, “most Americans have no objective knowledge about the history and status of dance in our culture” (p. xiii). The biases that have been carried forth have barely been examined. According to Scholes’ (1962) analysis, in 1660s New England, dance was prohibited because it was perceived as a practice of pagan, “Divill worship” (as cited in Wagner, 1999, p.55) by ‘Indians’ that can provoke “civil disorder” (p. 55). Since then, women in particular were shamed for dancing in view of the opposite sex. A pastor and later vice president of the Lutheran Church in Missouri, William Dallman (1862-1952) condemned that “the serpentine dances and skirt dances are danced in the longest dresses, and they are as nasty, lewd and indecent as anything can be” (as cited in Wagner, 1999, p. 241).

Wagner (1999) pointed out that, ironically, most of the male clergy who condemned dance had never danced or even saw the dances they were criticizing, such as ballet. She contended that the socio-cultural context of the typical white male clergy had shielded them from any artistic and aesthetic exposure, which in turn became part of the conservative Lutheran, Baptist and Evangelical Christian, upper and middle-class identity. Predictably, records showed that dance was accepted as theater art that catered to men in the post-civil war era. Working class women danced in various establishments for entertainment – as commodities. Upper or middle-class women were neither to be dancers nor dance and instead, attend to the pursuits of the ‘mind’ such as “education, good conversation, [and] reading” (p. 206). In this way, the body and its associations were viewed as less-than and separate from elite activities that did not involve competitive sports.

In the historical context, dance knowledge should be regarded cross-culturally and interdisciplinarily through specific paradigms. Dance and critical post-colonial scholars have brought forth the colonial histories of outlawing indigenous traditions and dance forms (Banks, 2009; Reed, 1998; Smith, 2012; Thomas, 1995), stepping away from ethnocentric ethnography and situating research and studies of dance and movement within broader frameworks of embodiment and the politics of culture. In the field of dance pedagogy, Banks (2009) postulated that the oppression of local dance forms was a way to “punish the body” (p.355) by denying the indigenous people their non-verbal traditions – the intellectual and cultural knowledge that was embodied in the dance. Such accounts may imply the politics and worldviews that establish academic bias towards text-based knowledge.

For dance/movement therapists and other creative arts therapists, paradigms need to be reexamined from within (Sajani, 2012b; 2015). Meekums (2014) raised that core DMT practitioner skills are the same ones that researchers need to develop: reflexivity, ability to make empathic connections through verbal and nonverbal means, and the ability to tolerate not-knowing. She pointed out that these research skills necessary for future DMT research “are gendered by society as soft and feminine, and thus inferior to the hard sciences/logical and analytic thought, which are seen as masculine” (p.133). Beyond the sphere of clinical mental health, the field of DMT is tasked with rewriting the discourse on dance and what it encompasses: embodied, aesthetic, relational expressivity.

Purpose of the Study

The intent of this dissertation was to develop a model that builds upon DMT practice to make meaning – as an approach to interpret and transform textual data – in research. The origins of DMT are based on the understanding that dance fulfills a need for human communication and

expression and that those are mediated through aesthetics. A mixed, qualitative and arts-based design that included ethnographic and auto-ethnographic processes were chosen for this research based on Leavy's (2015) recommendation that "arts based research practices are particularly useful for research projects that aim to *describe, explore, or discover*" while attending to the processes of both the "subject matter and method" (p.21). According to Nelson (2014):

the conditions for knowledge to occur lie in the relational encounters, but the mutual illumination of one element by another is likely to be necessary to meet the 'contribution to knowledge' requirement in affording a distinctive understanding that is the aggregate function of the different in-puts. The research in its totality yields new understandings through the interplay of perspectives drawn from evidence produced in each element proposed, where one data-set might be insufficient to make the insight manifest. (p.151)

An embodied approach to analysis was integrated into this researcher's pilot study that explored dance/movement therapists' experiences of a Welcoming Ceremony hosted annually by the American Dance Therapy Association (ADTA). In addition to an interpretive phenomenological analysis (IPA), the participants' verbal survey data were transformed into an embodied artistic dance/movement narrative (Kawano, 2013). While not radically different from the verbal analysis, the embodied approach attempted to offer additional elements of the participants' experiences. The dance tuned into the emotional undercurrent of the participants' voices. Further examination of the process of creating a dance based on interview data was expected to offer insight into the usefulness of dance as a means to understand verbal data in richer ways. In addition, documenting and examining this researcher's embodied, artistic knowledge and reflexively engaging with other DMT practitioners was aimed at building cohesion and establishing rigor among arts-based researchers. Several considerations were made:

(a) how to allow the voices of the participants/co-researchers to come through; (b) how to be aware of personal movement preferences; and (c) bring forth this researcher's dance aesthetics, training and experience.

Research Questions

Rather than as a subject of inquiry, this study purported to yield insights into DMT practice as a means of examining, representing, and communicating research, and aimed to answer the following questions:

- What are the benefits and limitations of dance as an approach to analysis?
- What can be known about interviews and other verbal, textual data through improvising and creating a dance?
- How does one represent and communicate meaning interpreted through a dance?

This study is intended to be a part of a continuous process of refining an approach to analyzing interview data. The created model is not an end product, but a framework based on dance and DMT skills to be used to formulate other such systematic methods based on the unique characteristics and capabilities of various arts modalities.

CHAPTER 2

Literature Review

Developing an embodied approach using dance/movement therapy (DMT) principles as a way to examine interview data not only concerns dance and psychology, but involves broader philosophical and interdisciplinary discourses of the body, aesthetics and culture. This review of the literature is divided into three main sections: Dance as a Way of Knowing; Embodied Research; and Arts-Based Research (ABR). In the first section, an overview of the development of DMT practices, theories, and techniques is provided. Theoretical texts on dance epistemology will overlay this review. This is followed by an examination of dance, ritual performance and DMT, and a proposal of their functional similarity. Ethnographic ritual studies offer an understanding of dance knowledge and the cultural specificity for the relevance of performative art forms as sources of, and methods for communication. This lays the groundwork for discussing the relevance of aesthetics in the process of meaning making, which are culturally specific. Instead of a comprehensive philosophical discussion on aesthetics, the focus is on dance aesthetics as it relates to arts-based DMT and other creative arts therapies (CAT) research. Second, embodied research is presented from the two main perspectives of embodied cognition and phenomenology. Third, recent methodological developments and rigor in ABR are probed; and frameworks that were adapted for this research are introduced. Finally, a rationale for an embodied, artistic DMT approach to analyzing interview data is offered.

Dance as a Way of Knowing

As arts-based practitioners, creative arts therapists know that the arts represent and communicate focusing on different channels and at different levels relative to verbal language (Berrol & Cruz, 2004; Cruz, 2006; Rylatt, 2012; Sajjani, 2012a). Earlier on in the growth of the

profession, Zwerling (1979) discussed two concepts uniquely essential in CAT practice: the emotional impact that the arts can have; and the symbolic creation of an immediate reality-based link to the client's experience. As a creative arts therapies modality, this statement applies to DMT, but it is also characteristic of dance, as well as performative rituals. To begin to understand the similarities among these three, seemingly disparate practices, this first section looks at the 'knowledge' in Chacian DMT and modern dance. Connections between DMT, dance, and ritual are then made with regard to dance aesthetics and knowledge.

Dance/Movement Therapy

With roots in modern dance, DMT is a psychotherapeutic modality that uses symbols and metaphors to communicate non-verbally through the body and movement. The body's cognitive, affective processes and relational, aesthetic movement expressions are essential to its practice. Verbal processing is often used in conjunction to bring awareness to spontaneous gestures and other types of unfiltered movements and their dynamics. It is a process of meaning-making that can also provide insight.

Chacian DMT. Among the major pioneers of DMT was Marian Chace. Chace had a background in painting and only began dancing for her recovery, at age 20, from a back injury (Schwieters, 1984). She took dance classes in New York at the Denishawn School and with Graham over a number of years. The technique at Denishawn was a modified form of classical ballet that incorporated "Indian, Japanese, Algerian, Javanese, and Egyptian styles of dancing" (p. 7). Chace later used her understanding that the way one moved was based in cultural, religious and philosophical world views in developing her model of dance therapy. While Chace used visual arts, music, dramatic story-telling, and dance, she believed that the therapist needed

to be foremost a dancer who had an awareness and control of her body, and who accepted people as they were (Stern, 1957).

Communication. In the late 1930s, Chace began exploring the possibility of healing through dance in her own branch of the Denishawn School in Washington D.C. As a professional dancer and teacher, Chace (n.d.) was frustrated by some of her students who were neither physically equipped, nor had aspirations to become professional dancers. Instead of giving up on them, she dug deeper into her own frustration and explored “people’s need for communication in movement” (p. 12). She began to empathize with her students and to meet their needs as people as well as dancers. This took form in many ways. Among others, the District of Columbia Medical Society, the Silver Spring School for children of broken families, a rehabilitative National Training School for girls, as well as independent clinicians reached out to Chace to use dance and nonverbal, symbolic, and rhythmic body action to assess and do sessions. Particularly in her work with orphaned children, Chace noticed the “underlying feeling of being outside of the community” (p.14). Through her experience, Chace learned that nonverbal communication was unfiltered and always present, and verbal communication can be used as a double-edge sword – to disguise or augment one’s true feelings. From taking psychiatry courses and having interdisciplinary discussions with psychiatrists, pediatricians, counselors, teachers, Chace went on to develop her inclusive, relational method comprised of music and rhythmic action based on improvisation.

Relational emphasis. Chace first began working with mentally ill clients as a volunteer (which later developed into a full time professional position) at St. Elizabeth’s Hospital in 1942 as the emergence of humanistic psychology and ethical treatment was coming into light. In her voluntary position with the Red Cross for World War II veterans, Chace focused on group

interaction through the communicative aspect of dance, which only gained support after she made breakthroughs with nonverbal clients (Shelly, 1981). Her group orientation arose from her view of humans as social beings who suffered dis-ease in alienation and isolating existences.

Chace (1957) stated:

The essential aloneness that threatens people generally in our culture is augmented and increased by the distance we are able to maintain. Perhaps it would not seem essential to us to maintain this distance if we dared to express our emotions directly, if we dared to share these with others rather than to hide them and converse in largely emotionless, neat comment. (p.326)

In 1946, Chace presented her work to psychiatrists at Chestnut Lodge, a psychiatric institution, where she was then brought on to work. Actively dialoguing with various mental health professionals likely assisted in her assessment and conceptualization of the DMT framework.

Ritual/structure. In a typical Chacian DMT session, which structure is ritualized, there is a beginning, middle, and an end. Characterized by a spirit to radically accept what is presented in the moment and build with the offer, Chace used a circular formation that “provided support for those who were otherwise too confused to remain attentive” (Shelly, 1981, p. 29). Clinicians and staff were also invited to participate, equalizing some of the hierarchical relationships, and filling a gap in communication. The patients and staff also produced performances using drama and psychodrama to re-enact life situations and to solve problems.

Music was another element that provided structure. Chace typically used waltz music, but modern day dance/movement therapists gage the *milieu* – of the context and setting of the therapeutic environment – and choose a piece of music that corresponds with the patients’ moods.

Modern Dance

The socio-historical origins of DMT can be traced to modern dance. 'Modern dance' is a term used to refer to multiple dance forms that began to emerge in the 1900s in North America and Europe. Along with more liberating dress for women, the first generation of modern dancers, as exemplified by Isadora Duncan, were reacting to the mechanistic, formalized structures of classical ballet, which was born in the courts of the Italian Renaissance and later developed and established in France as a professional art form (Anderson, 1992; Au, 2002). In modern dance, individual inner experiences, such as the exertion of energy through breath, were made more explicit rather than concealed.

Expression. The second generation of modern dancers sought to express the darker emotions that were reflected in the outer world. For instance, Doris Humphrey developed a 'fall' and 'recovery' technique whose muscle tension reflected human conflict depicted in many of her dances. In similar fashion, Martha Graham's technique conveyed the struggles of the self through apparent efforts of physical 'contraction' and 'release' "as a metaphor for life itself" (Anderson, 1992, p.158). Her choreography depicted Greek myths and rituals to express universal truths of mankind. A transformative quality of dying and being reborn was inherent in the symbolisms of her ritual-dances. These ideas were also reflected by Erick Hawkins, who, after a tumultuous marriage to Martha Graham (and as her company's first male dancer) established Erick Hawkins Dance Company in 1951.

Awarded the National Medal of Arts in 1994 by President Clinton, Hawkins created his own technique based on kinesiology and 'natural laws' of the body in reaction to being injured early in his career as a principal ballet dancer with the Ballet Caravan, currently known as the New York City Ballet. Hawkins (1992) observed the Rain Dance of Zuni and the Corn Dances of

Zia Pueblos near his hometown in Trinidad, Colorado, in which “men use dance as part of their worship, part of their coming into harmony with their own life and the lives of all the other centers of the world around them” (p.56). As ballet’s recognition was rising internationally in the 1950s, Hawkins was advocating for modern dance when it was still considered “the half-baked crazy art of some talented and some untalented off-beat odd ones” (Hawkins, 1992, p.34). He believed that “Art is a question of telling the myth and the great rite of growth from his own maturity because that is what each individual needs from the artist to help him live” (p.6).

Improvisation. To create a dance is to improvise and/or choreograph. Such tradition is observed in dances ranging from the *noh* dances of Japan, to contact improvisation in the US. All dance begins with improvisation – with the impulse to move. Carter (2000) identified three types of dance improvisation: “1) embellishments where set choreography persists, 2) improvisation as spontaneous free movement for use in set choreography, 3) improvisation for its own sake brought to a high level of performance” (p. 182). While improvisation has generally been used as materials for choreography in the US, the idea of improvisational dance as a work of art, in of itself, was established in the 1970s with Yvonne Rainer, Steve Paxton, and Trisha Brown, among others (Carter, 2000).

Dance and DMT

Like many of the modern dance forms that rely on improvisation, DMT sessions consist of “actual movement patterns of both patient(s) and therapist” that “exist at the moment of their encounter” (Schmais & White, 1986, p. 3). Panhofer and Payne (2011) established that the verbal understanding of embodied experiences happens through images and the moving process in the body “in a nonlanguage, metaphorical manner” (p. 218). The use of metaphor that is based in the body creates a direct connection to mental images, which can then be explored. These

metaphors offer multiple paths and representations of the same images. Lakoff and Johnson (2008) emphasized metaphor as “tools for trying to comprehend partially what we cannot comprehend totally: our feelings, aesthetic experiences, moral practices and spiritual awareness” (p.193). This can take on many forms of nonverbal and arts-based methods.

Through their respective arts-based auto-ethnographies, Cancienne and Snowber (2003) introduced the notion of “*self as a place of discovery*” (p.40). The authors each engaged in research using their bodies and dance techniques as tools for exploration. Cancienne accessed her childhood memory of doing ‘women’s chores’ within her Cajun heritage and choreographed a dance using Graham and Horton modern dance techniques using improvised movements that resembled daily chores. Through the creation of a performance called “Women’s Work,” she found dance’s capacity for “transitioning,” stating that “people from oral cultures or diverse language cultures can cross over to academic culture without leaving their oral cultures behind” (p. 243). Her choice of music reflected the women’s experiences working with water, as well as associations with imagery of mirrors and rhythmic heartbeat while working. Alternatively, Snowber composed and performed a 45-minute multi-modal performance piece called “Beyond the Span of My Limbs.” This was a part of a collaborative research project with a mathematics professor on the relationship between dance and mathematics. In using her physicality, Snowber better understood the abstract concepts of math as grounded in tangible, countable objects and geometric forms. She found that the limits presented by these physical objects allowed her to grasp her own bodily limitations (due to a knee injury) and consequently transcend her experience through adopting a chair as an extension of herself and access *infinite* possibilities. Together, the authors proposed that non-textual representation was “an interaction between ... ontology and epistemology” (p. 248) and can enhance educational research “by connecting with

people's natural understanding of breath, voice, rhythm, and emotion" (p. 249). In their view, this mode of inquiry was also a way to heal bodies that have been oppressed in educational environments.

Dance and Ritual

In *Method Meets Art*, Leavy (2015) made a disclaimer that the chapter on dance "combines elements of all the other art forms in this book: it is musical, performative, visual, poetic, autobiographical, and can serve narrative" (p. 148). This understanding surfaces with ethnographic ritual studies of dance anthropologists whose works found that performative rituals around the world commonly integrated music with dance and/or drama (Ben-Ari, 1991; Blacking, 1967; Hanna, 1987; Hirabayashi, 2009; Kaepler, 2010; Mills, 2012; Monteiro & Wall, 2011; Rust, 1998; Sachs, 1963). The body and motion are central to dance, but its use is determined by "ritual and discipline" (Leavy, 2015, p. 148). This is a crucial notion for this study in which DMT practice can take on ritualistic forms, as a place for connection and knowledge transmission, and also be considered an art form.

Anthropological scholars agree that the origins and prevalence of dance are ancient and worldwide (Blacking, 1967; Hanna, 1987; Kaepler, 2010; Rust, 1998; Sachs, 1963). Archaeological artifacts such as terracotta potteries and depictions found on the walls of the Acropolis of Susa in southwestern Iran show agrarian, circle dance forms dating back to 4000 B.C. (Dunn-Vaturi, 2003), suggesting that rhythmic, structured forms that are referred to in North American society as 'dance' and 'music' existed throughout human history.

Performative, ritual art forms have many functional significances to adapt, manage societal tensions and allow for the expression of the individual while integrating the self with society. Hanna's (1987) ethnographic research showed that performative rituals that involved the

use of symbols could mediate “social relations and political situations” as observed with the Ubakala dance-plays that permitted “emotional communication prohibited in everyday life” (Hanna, 1987, p.172). Or as seen in *ngoma* dances, “strenuous leaping and stamping” served to “dissipate energy and emotion” of the Ngoni men (Hanna, 1987, p.189). Likewise, Rust (1998) found that all over the world, “from arctic snows to jungle swamps,” (p.16) periods of transitions and celebrations such as birth, death, coming into adulthood, marriage, as well as times of worship, war and sickness were marked by dance-music rituals. While attitudes towards ritual practice can range from primitive to esoteric or symptomatic, the value of ritual in psychotherapeutic approaches is recognized (Al-Krenawi, 1999; Davis, 2000; Kwan, 2007; Bassin, 2012; Richardson, 2012), particularly with regard to their performative and communal aspects in which a response from the public or a witness (therapist) is garnered.

In DMT practice, the non-verbal, symbolic and embodied aspects of its aesthetic modalities for psychological healing can take on ritualistic forms. The use of a circle can serve to manifest the archetypal form of celebration rituals (Adler, 1992). *Authentic Movement*, a highly ritualized form of Jungian dance/movement therapy that has its roots in psychoanalysis and psychodynamic theories, generally begins by the participants walking counterclockwise to descend into the unconscious to help break with daily life as usual. Dance/movement therapist Anna Halprin referred to a ‘ritual consciousness’ as “a way of shifting awareness from an automatic, habitual way of living your life to one of active awareness and to using dance with the purpose to heal” (Schorn, Land, & Wittmann, 2014). Moreover, Halprin viewed dance and ritual as both performance and research methodology (Ross, 2004). Ross (2004) perceived Halprin's work as “‘urbanized’ ritual in part by rewriting the role of the spectator, making her a *witness*: an individual who is present at the performance to support it with her attention rather than look

to it for diversion or entertainment” (p. 49). Incidentally, drama therapist Sajnani (2012a) has remarked on a similar notion as the “aesthetic intelligence to track significance” (p.79). What is shared in all three – dance, ritual and DMT – are the notion of engaging in the performance collectively with a purposeful attitude. This particular form of mindful and rhythmic engagement may offer insight into how meaning is created and transmitted using dance.

Scholars, interdisciplinarily, have made arguments for dance *as* ritual (Hanna, 1987; Monteiro & Wall, 2011; Novack, 1998; Wulff, 2005). Novack (1998) delineated the similarities between dance and ritual as both being: (a) specialized performances that are set up in environments that are out of the ordinary; (b) persuasive via emotional arousal of both participants and spectators; and (c) having performers and spectators in which the interpretations of the performance are complex, ambiguous and varied, which “are not shortcomings; they can evoke power, evocative strength, resistance and changeability” (p.356). All three of these are evident in DMT practice. Kaeppler (2010), who studied dances of Hawaii, Tonga, Bulgaria, and India spanning 20 years, referred to both ritual and dance as “systems of knowledge that are socially and culturally constructed” (p. 263). Contrastingly, she made two distinctions between dance performance and ritual: (a) ritual emphasized the process relative to the product; and (b) dance and ritual in other cultures have distinct meanings from the anthropological concept of ‘ritual’. What can be garnered through this understanding of the similarities and differences between dance and ritual are that DMT practice may be closer to ritual practice, and that Novack’s (1998) criteria about performers and spectators interpreting the meanings of the performance can be examined further.

For instance, in Kaeppler’s (2010) study, the movements of Hawaii’s *hula pahu*, which are a small group of dances that remain from pre-Christian rituals, were formulaic, meaning that

the performance was a message “with an encoded metamessage” (p.266) rather than creative expression. The local *kava* and funerary rituals in Tonga also used prescribed rather than choreographed or spontaneous movement. Kaeppler addressed the lack of anthropological focus on body movement as “visual manifestations of social relations [and] the subjects of elaborate aesthetic systems” (Kaeppler, 2010, p.263). A potential obstacle with cross-cultural ethnographic research is that the precise meanings may not be deciphered – a researcher brings her framework to understand phenomena. Even if the qualitative experience of a dance could be recorded, archived and transmitted in the same way as verbal text, one’s aesthetics and cultural views influence the interpretation and description of data.

In *Beyond Culture*, Hall (1989) categorized communication styles as either high-context (HC) or low-context (LC). HC Japanese culture exchanges information mostly on the non-verbal level, “either in physical context or internalized in the person, while very little is in the coded, explicit, transmitted part of the message” (Hall, 1989, p.91). This is possible because the receiver and the context setting have pre-programmed information. LC North American culture relies exceedingly on the explicit, verbal code because “preprogrammed responses of the recipient, and the situation” (Hall, 1989, p.100) are lacking. These differences can also become a matter of aesthetics.

For instance, Köpping’s (2005) study gives insight into the role of the body and artistic practices in the transmission of knowledge. The author focused on a Japanese masked ritual performance, the *Yama-no-kami* (Mountain God) dance, which is performed to give thanks to the agricultural cycle and invoke health and prosperity during the *Hanamatsuri* (Flower Festival) of Nagano. The masked Mountain God performer increased the intensity of his steps along with the drum beats which led to seemingly frenzied and chaotic movement (but still in control, following

prescribed steps), swinging the halberd prop wildly until falling to the ground. Köpping claimed that the most interesting aspect of this ritual was the ambiguity of the entire performance. While the masked dancer is ‘playing’ the Mountain God, it is also understood that the Gods are ‘playing’ for the humans’ sake. The distinct multilayered Japanese ‘selfhood’ was also represented in the ambiguity, as the masked man became the God within the ritual and was also elevated as a person in ordinary life. *Aimai*, or the ambiguity, that is the hallmark of Japanese culture (Ikeno & Davies, 2002) is also an important characteristic for maintaining harmony. Köpping was able to delve further into the ambiguity, in part, due to the observation of a traditional ritual dance, which superseded verbal representation. The author also highlighted the Japanese salience of mimetic transmission of movement motifs from masters without explanation, clarifying that the imitative action-oriented traditions should not be perceived as inauthentic in part because they are constantly evolving through the ‘fusion’ of elements. This is relevant to the notion of ‘authenticity’ in ABR (discussed later in the literature review) since the ambiguity of embodied knowledge can be compounded if meanings are not immediately apparent due to a divide in both culture and the use of a paradigm.

More recent ethnographic literature pertaining to colonialism and forced migrations refer to aesthetics as a body-based practice to transmit, form, and represent ethnic and/or cultural identity (Monteiro & Wall, 2011; Parmar, 2013) The body and its artistic expressions not only are mechanisms and/or tools for research knowledge, but are configured as sites of knowledge where meaning is created and resisted (Grosz, 1994). An example of this is Wulff’s (2005) ethnographic study of Irish dance that aimed to discover perceptions and actions inscribed in an Irish dancer’s body by way of interviewing Irish dance critics and choreographers. Wulff’s analysis led her to believe that Irish dance communicated “memories of displacement, longing

and resistance” (p.59). Some of this was evident in the stiff upper body, which was a reaction to the colonial English characterization of the Irish as ‘unruly’. She likened dance performances to ritual events, particularly with regard to the repetition and rhythms that mesmerize and arouse the body. Wulff concluded that the current mobility of the Irish was represented in the fast paced intensified movements of Riverdance, now performed worldwide. The chorus of dancers was symbolic of the Irish “conquering the world” (p.59) and the thousands of Irish dancers who embody the history and compete at championships all over Europe “connect a distinct Irish tradition with European modernity” (p.59). Dance was a mode of communication and collective knowledge of Irish cultural heritage – a site and embodied text of political and social struggle that may not be able to be deciphered in the immediate moment through a recognizable verbal, text-oriented channel. It is important to consider that bodies are biologically, culturally and socially constructed (Grosz, 2014). Wulff’s interpretation of her findings are shaped by her understanding of the Irish dance form and socio-cultural embodied experiences of living in a particular place at a particular time. The researcher’s situatedness has been addressed by critical theorists and embodied phenomenologists, which is pertinent to DMT research, as are aesthetics to methodological integrity.

Dance and Aesthetics

Dance can be differentiated from other activities that involve nonverbal body movements via the “aesthetic domain” – of “the importance of movement (the fact of bodily action)” and “motion (illusion and residual action resulting from the kind of movement produced)” (Hanna, 1987, p. 37). From an evolutionary ethological perspective, Dissanayake (2009) theorized that art was a necessary means for humans to survive and perceived aesthetics as “the behavioural and emotional means by which features or works [of dance and other performances] have their

effects” (p.534). In these contexts, aesthetics is knowledge based on sense perception and experience – a means of giving formal expression to intangible emotions, inner experiences and imaginations. Furthermore, the dynamism involved in aesthetics evokes and impacts emotion – whether it be wonder, disdain, justice, or satisfaction – in those that engage in the particular art form. Dissanayake (2009) suggested that “emotional and bodily meaning” was developed and transmitted through the temporal arts such as music and dance (p.533) and that being moved emotionally and physically through dance aesthetics is *the* mechanism for adaptation. DMT and performative dance rituals may converge on this idea that dance are communicative vehicles to make meaning and connections.

The understanding of aesthetics as a mechanism for adaptation and/or healing hinges on the centrality of the body. The philosophical foundations of CAT as an embodied practice can be inferred from philosopher Susanne Langer’s writings, who believed that art is “a thoroughly bodily affair, which is fundamentally rooted in sense perception” (Dengerink-Chaplin, 2005, p. 6). Langer asserted that the arts were symbolic presentations: “formulation and representation of emotions, mood, mental tensions and resolutions – a ‘logical picture’ of sentient, responsive life” (as cited in Dryden, 2003, p.195), rather than an expression of the self. For DMT practitioners, the symbolic presentations involve relationships, connections and creating new memories by attending to the aesthetics of the living body.

Dance anthropologist Hanna (1987) proposed that dance aesthetics includes “notions of appropriateness, quality, or competency” (p. 38) from the dancer’s cultural perspectives. Having culturally appropriate aesthetic awareness is an important interpretive criterion for the researcher to establish rigor. For performance ethnography, Denzin and Lincoln (2011) defined aesthetics as “sets of interpretive and expressive strategies to be interrogated, deployed or resisted” (p. 320)

by the researcher. Implementing such notions of aesthetics involves the researcher to have a grasp of how the intersection of culture, race/ethnicity, gender, sex, class, and so-forth, is embodied and impacts relationships and the research. What a researcher might notice is also bound up in styles of communication and cultural preferences. These preferences can range from broad sub-cultural categories such as jazz music, to communicative frameworks such as the Kestenberg Movement Profile.

Dance and Knowledge

There are two general trends in discussing dance's relationship to knowledge: communication of difficult ideas, and the integration of learning and problem solving. Competitions such as "Dance Your PhD" have successfully gained notoriety for the researchers' attempts to use dance to communicate the gist of a complex idea symbolically through the use of body, movement, and music, in as few words as possible (Bohannon, 2011). These dances were found to engage both the general public and researchers interdisciplinarily with scientific material that might otherwise not be accessible. Paradoxically, based on the comparison between dance and verbal languages, "dance has greater difficulty communicating complex logical structures than verbal language" and "the kind of detailed syntax governing language sequences is yet to be worked out in dance" (Hanna, 1987, p.88).

Hanna (1987) categorized six distinctions between dance and verbal languages based on the linguistic analysis work by Hockett and Ascher (1964): (1) vocal/auditory vs. motor/visual channels; (2) temporal vs. both temporal and spatial dimensions; (3) speaker hears self vs. dancer does not see self; (4) fuller involvement necessary in dance; (5) phoneme and morphemes as minimal units vs. lack of agreement of minimal units; and (6) greater ease (detailed syntax) vs. greater difficulty (syntax exist only for few dances) in communication (p.87). While there are

similarities between language and dance such as ambiguity and “affectivity (expression of an internal state with the potential for changing moods and for changing a sense of situation)” (Hanna, 1987, p.86), there are obvious differences between the two. These differences are important to consider regarding the dissemination of ABR.

The hypothesis that scientific concepts could be recognized in modern dance form was tested in a live experiment (Bohannon, 2009). Four winners of the “Dance Your PhD” competition from 2008 were each paired with a choreographer. The winners were from Australia, Germany and Canada; and all incidentally were accomplished as artists (playwright, dancer, visual artist and sculptor). The four pairs of artists and scientists worked together for a period of three months to create a four-part dance of their peer-reviewed articles. Three hundred forty-one audience members, either online ($n = 229$) or at one of the eight live performances around the world ($n = 112$) had to match dance performances with their articles’ abstracts. While the live audiences only had access to the summaries and abstracts, they guessed correctly 2.06 out of 4, compared to the online audiences (1.76) who had access to full papers, transcripts of the artistic process and webpages of the scientists and artists ($p < .05$). Overall, the audiences guessed correctly 1.86 out of 4, which is higher than random. A significant difference between the live and online audience was observed (2.64 out of 4) in which the live audiences guessed 50% more times correctly ($n = 28, p = .001$). Notably, half of this audience were trained dancers as well as molecular scientists; and guessed all four dances correctly.

Bohannon (2009) proposed that the focused attention in a live setting was why live audiences guessed better than online audiences. This parallels Ross’ (2004) view that the participants of Halprin’s urban ritual engage with the performance more fully than passively expecting to be entertained. Other reasons can be inferred from research by Wirtz, Kruger,

Scollon, and Diener (2003) that people's memories of live events were far more likely to be laden with affect and this impacted their desire to repeat that experience in the future (Wirtz et al., 2003). From a creative therapies standpoint, that all four selected participants had artistic backgrounds is significant. Bringing specific aesthetics from their respective art forms may have contributed to the successful rendering of their research.

Irving (2015) also tested how dance and movement can be used to teach statistical concepts in psychology. Their online film garnered over 100,000 views on YouTube. The blogs and articles pertaining to their film showed that viewers, who ranged from the expected psychology students to nursery school students and veterinary surgical trainees, responded surprisingly positively. The authors scratched their heads stating: "Exactly what it is about the films that makes the concepts more lucid is unclear and some research in this area would be welcome" (para. 2). The discrepancy between whether dance is suited for communicating complex ideas or not, may depend on how information is being processed. This notion builds on embodied cognition findings that movement helps integrate learning and problem solving. For instance, the emerging embodied cognition research supports the neurological connections between motor skills and language acquisition and literacy (Iverson, 2010). Other reason may be attributed to aesthetic and relational dimensions of dance.

According to Lovatt (2013), dance can be distinguished from other movement modalities due to its social, physical and cognitive elements. Structured dance speeds up cognitive processes, especially for problem solving that includes convergent thinking. Improvisational dance, on the other hand, whether with music or with words, enables one to find solutions to divergent thinking problems. This enhancement in creativity is assumed to be adaptively useful for developing one's ability to think critically. Hence, the affective, collective, ritualistic quality

and the activation of mirror neurons, muscle memory, and other physiological processes may play a role in what gets communicated through a dance.

Although there is no conclusive consensus as to the effect of dance and movement on learning, in one study, test scores increased for the understanding of electrocardiograms (ECG) in third year pharmacology students (Schultz & Brackbill, 2009). Two cohorts of 139 students were taught ECG concepts in collaboration with a dance faculty member over the course of two separate years. The mean pre-test scores for the two years combined for the control group ($n = 68$) were 3.5 ± 1.8 (35%) versus 3.4 ± 1.5 (34%) for students in the intervention group ($n = 71$); $p = .672$. A significant effect was found in post test scores for students who were taught the concepts through dance ($M = 73\%$) than those who were taught through traditional lecture and power points ($M = 67\%$), $p = .054$. The qualitative focus groups conducted with 10 randomly selected students revealed that the instruction that included dance was more enjoyable, which would have an effect on episodic memory. Such ways of activating muscle memory to correlate other sensory learning may perhaps be intrinsically utilized by successful learners. The scientists in the “Dance Your PhD” competition, for example, have alluded to body experiments as a way to integrate their theories into concepts (Pain, 2009).

Myers (2012) explored the relationship between movement and the process of scientific inquiry from her perspective as a trained ballet dancer and a scientist. After tracking the history of the body’s involvement in science research and pedagogy – from the Nobel Prize Laureate, Paul Berg’s account and dance choreography video of “molecular interactions involved in protein synthesis” (p. 163), to numerous examples that were entered in the “Dance Your PhD” competition – the author provided accounts of three scientists whom she interviewed with regard to *embodied animation* and *body experiments*. These scientists used various modalities such as

film and computer graphics to attempt to represent “forms, forces and energetics of molecular worlds” (p.156). According to these scientists, the main reason for using dance and movement for scientific discovery was their fluidity – being able to play with rhythms of movement and molecular time. Though animations would concretize and over-determine the temporal flow and accuracy of a process, the elastic nature of body experiments allowed the scientist to “use their bodies as proxies to test out the attractive and repulsive forces and tensions between atoms in a molecule” (p.171). Furthermore, body experiments were described to be “*transductive*; that is, they can propagate forms of knowing through performative articulations that excite others into action” (p. 178). The elastic dance renderings could then be used to educate colleagues and students in the classrooms.

Discouragingly, in tracking how scientists moved, Myers (2012) found that scientists became self-conscious as soon as their bodies were brought to attention especially if the scientist was female. Codes of “proper conduct” (p. 159) in science labs prevented them from admitting their use of body movement for pedagogical and discovery purposes. It would be sensible to point out that the fields of dance and psychology are largely associated with females, as is the psychological concept of empathy; while science is predominantly ‘male’.

A related prologue to this research was the societal response to molecular biologist, John Bohannon’s radical idea for a dance competition about scientific discoveries. Journalists received criticism that the article on the “Dance Your PhD” competition was irrelevant to science (as cited in Tierney, November 20, 2008) and the readers complained the story should not have taken up space in ‘prestigious’ outlets such as the New York Times. Public radio hosts uniformly commented (albeit jokingly) that if dancing, scientists had too much time on their hands. Myers (2012) reflected: “Apparently, there is a moral imperative for scientists to engage in rigorous,

disciplined labour, and this must take the form of a kind of disembodied cognition” (p.160). Social commentary exposed some of the underlying Puritanical ‘elite’ belief that dance is a diversional activity that supplanted the ‘real’ work of science (Myers, 2012). Sajnani (2012a) argued, “What we refer to as knowledge and the ways by which we arrive at it are determined by those who have been legally, intellectually or morally authorized to determine” (p.80) their construal and value. The scientific fact that cognition is embodied and that movement is what helps scientific discoveries needs to be communicated widely to the general public.

In research, dance as practice or method may not be effective for the discovery of new facts (Pakes, 2003). However, dance can: promote empathy (Chace, 1957; McGarry & Russo, 2011); create intimacy (Chace, 1957); facilitate dialogue (Caldwell & Johnson, 2012; Chace, 1964; Koch & Fischman, 2011); communicate and transmit messages (Kaeppeler, 2010; Wulff, 2005); increase community solidarity (Hanna, 1987; Rust, 1998); provoke emotional responses (Hanna, 1987; Novack, 1998; Zwerling, 1979); offer new insights and learning (Bohannon, 2009; Irving, 2015; Myers, 2012; Schultz & Brackbill, 2009); problem-solve (Koch & Fischman, 2011; Lovatt, 2013); heal (Cancienne, & Snowber, 2003; Chace, (n.d.); Monteiro & Wall, 2011; Schorn et al., 2014); and access and represent marginalized voices (Boydell, 2011). These and other types of symbolized, experiential knowing can be garnered from embodied research and ABR, as will be discussed in the next two sections of this review.

Embodied Research

Snowber (2012) referred to the language of dance as “bodily knowledge” (p.55). The body is the instrument with which dance is manifested. Few researchers have developed the expressive “‘[p]resentational’ (“symbolized”) knowing” (Liamputtong & Rumbold, 2008, p.2) that is, experiential, phenomenological knowing. This phenomenological aspect of knowing is

associated with *somatic research* that perceives “embodied writing” – attending to the sensory, bodily experiences – as a way to experience and do research (Anderson, 2001, p. 83). This section focuses on embodied knowledge and presents the ways in which bodies have been represented and integrated into research.

With advancements in technology and neuroscience, the concept of embodiment has led to the proliferation of research across disciplines in a variety of disciplines including artificial intelligence (Tanenbaum, El-Nasr, & Nixon, 2014), computer science (Buse, 2010; Paulos & Canny, 2001), education (Kazan, 2005) and neuroscience (Blasing, Calvo-Merino, Cross, Jola, Honisch & Stevens, 2012). Having an understanding of embodied research is pertinent for creative arts therapists whose bodies – of both the therapist and client – can be central to their practice, particularly for dance/movement and drama therapies. Dance/movement psychotherapist Allegranti (2013), for example, brought attention to the performative aspect of embodying social norms and how “bodies become sexed and gendered through a mutually influencing process of biological and social construction that evolves over time” (p. 394).

Embodied cognition research has validated the connections between the body, movement, the use of space and time, and perception, which were proposed early on by modern dancer Rudolph Laban (1879-1958) and others who later adapted and developed a movement observation and assessment tool known as Laban Movement Analysis (LMA), which will be discussed further in the third section of this review. Renewed interest in the body through interdisciplinary embodied cognition, however, still holds to the paradigm of a mind-body separation of the Cartesian dualism (Sheets-Johnstone, 2011; Warburton, 2011). Embodied cognition and neuroscience accentuate the roles that bodies play in perceptual, affective, and cognitive processes. On the other hand, the phenomenological view of embodiment that

developed with Husserl (and later with Merleau-Ponty) distinguishes itself from the body as a representational, biological entity and “can be understood as an indeterminate methodological field defined by perceptual experience and the mode of presence and engagement in the world” (Csordas, 1993, p.135). Dance/movement therapy straddles both views, encompassing the notion that bodily movements such as gestures and postures influence one’s emotions, cognitions and actions (Koch & Fuchs, 2011) informing the qualitative, relational aspect of embodied experience.

Embodied Phenomenology

The phenomenological perception of embodiment assumes that the conception of oneself, others, the world and their interrelationship is formed through bodily perceptions and emerges out of involvement with others (Koch & Fischmann, 2011). This type of experiential knowledge acknowledges the central role of the body to integrate experience. Kozel (2010) extrapolated that “the first moment of phenomenology originates in doing, but accompanying this doing is a weaving in and out of a line of thought, a line of questioning” (p.50). In the context of research, common stages of first-person – phenomenal, “lived experience” (p.1) methods in the literature are: a suspension in judgment; phenomenal filling-in, requiring specific training (such as dance) for the elaboration and pursuit of the initial suspension; and expression and intersubjective feedback (Varela & Shear, 1999). Descriptions produced “through first-person methods are not pure, solid ‘facts’ but potentially valid intersubjective items of knowledge” (p.14).

Focusing on embodied phenomena as a way of knowing concerns shifting dynamics and relationships between the body, embodied practices, power, agency and practitioners’ identities (Zarrilli, 2001). These concerns reflect the ethics regarding the relationships between researchers and the researched. Like other professions in the humanities that are based on interpersonal

relationships, the phenomenological ‘body’ has been integrated into social sciences research – in education (Estola & Elbaz-Luwisch, 2003; Francesconi & Tarozzi, 2012; Kazan, 2005; Macintyre Latta & Buck, 2008; Vick & Martinez, 2009), nursing and social work (Kent & Raingruber, 2003), psychotherapy (Finlay, 2006), and health care (Ellingson, 2006) – as a way to critically examine how bodies influence and enhance the understandings of researcher and participants’ responses to human experiences.

For instance, Wilcox (2009) elaborated on embodied knowledge connecting “lived experiences, performance, and bodily intelligence” (para. 1) through working collaboratively in conducting workshops and doing a community based theater project. Using her experiential workshop with a women’s studies course at the College of St. Catherine as an example, she made the case for using ‘performance’ pedagogically. The embodied experience of performing and bringing attention to emotions allowed the students to move from a theoretical understanding of racial prejudice to gaining a visceral sense of how these dynamics were enacted daily in American society. In like manner, dance/movement therapists have integrated embodiment into their research based on DMT skills (Caldwell & Johnson, 2012; Karcher & Caldwell 2014) that highlight the body’s role in situating oneself in relation to another.

Because studies that combine both perspectives – of phenomenological embodiment and embodied cognition – are rare (Warburton, 2011), some researchers have criticized the overuse of ‘embodiment’ due to the dichotomized premise of embodied cognition. Alternative terms such as ‘animation’ (Sheets-Johnstone, 2011; Myers, 2012) and ‘dance enaction’ (Warburton, 2011) attempt to clarify the phenomenological view that illuminates the relational nature of bodies in motion.

Sheets-Johnstone (2011) proposed a trans-disciplinary view of movement, criticizing the de-animation or mind-body split that is enforced with the neuropsychological view of embodied cognition. Through observation of the natural world (e.g. honeybees), she believed that “symbolization is a form of analogical thinking,” and that “analogical thinking is foundationally structured in corporeal representation” (p.13). Her view that self-experimentation and introspection as methodologies needed to be “reclaimed by science” is based on the theory that phenomenological practice:

has the possibility of grounding scientific knowledge in finer and deeper truths about sense-making precisely because it carries forward what is already there in descriptive psychology and because, in the first place, there is a confluence between science and phenomenology, a confluence not only in findings — e.g. the correlation between movement and perception — but in methodology. (p.180)

She distinguished improvisational dance as “thinking in movement” rather than “thinking by way of movement” or “transcribing thought into movement” (p. 420). The spontaneous process of creating a dance in the “ongoing present” (p.421) requires a dancer to ‘think’ and ‘do’ simultaneously without separation.

Dance scholar Warburton (2011) also became wary of dance phenomenology remaining in the premise of the dichotomized mind-body and sought to parse some of the psychological processes involved in dance and address “the problem of how to “language experience” in dance” (p. 67). Similar to dance/movement therapist Koch’s (2006a) emphasis on DMT and other forms of body psychotherapies and physiotherapy that “work with the body as an instrument of resonance and central relevance” (p.26) as embodied, enactive approaches, Warburton proposed *dance enaction* as a theoretical construct, focusing on empathic responses.

For him, empathy is what “differentiates dancing from other skilled physical activities, such as running and sports” (p. 71). He also highlighted *marking* – a way for dancers to individually notate, remember and communicate the feel of a dance (e.g. through the use of the hands and/or feet) instead of going all out in rehearsals – describing it as an enactive language that helps dancers to be present and preserve energy. He contended that:

the physicality of marking is experienced as an intrinsic part of the dance experience of the moving subject as she develops feeling in, of, and for the dance. In this way, the activity itself is a kind of physical re-languaging. (p. 76)

Essentially, Warburton sought to convey that one can only know through the *doing* of the dance experience. In clinical DMT work, and interview analysis involving dance, this process may also involve reflexive dialogues to clarify what is not conscious verbally.

Embodied Cognitive Research

As a newer conglomerate of fields and disciplines that include linguistics, cognitive psychology, neuroscience and artificial intelligence, embodied cognitive theories vary and are still evolving. The classical embodied cognition theory posits that both concrete and abstract words are grounded in perceptual-affective-motor systems (Rosch, Varela, & Thomson, 1991). This means that “freedom,” for example, is transferred in the same way that “chocolate” is. Other evidence points to the conceptual metaphor theory – that abstract concepts are based on image schemas built from concrete words (Lakoff & Johnson, 2008). These image schemas also influence perceptions of abstract concepts (Schubert, 2005). The abstract notion of “time” being mapped onto the concrete domain of space is one example. Also, spatial cues can affect how people judge others and events (Meier & Robinson, 2004; Williams & Bargh, 2008). Placing an object between two people eating dinner together may affect their perception of closeness. In one

study, notions of ‘God’ and ‘Devil’ were not only associated with vertical metaphors (God being ‘higher’), but research participants perceived that strangers believed in God if their images appeared in a higher, versus lower region on the computer screen (Meier, Hauser, Robinson, Friesen, & Schjeldahl, 2007). Although still scarce, newer embodied cognition research is examining affective influences. Day and Bobocel (2013) determined the relationship between the emotion of guilt and one’s perceptions of body weight.

Through an extensive review of findings in the social psychology literature from 1884 to 2004, Niedenthal, Barsalou, Winkielman, Krauth-Gruber, and Ric (2005) concluded that embodiment is integral to social information processing “where embodiment refers both to actual bodily states and to simulations of experience in the brain’s modality-specific systems for perception, action, and introspection” (p.184). The authors examined various theories and criticisms on embodiment and addressed these through Barsalou’s (1999) Perceptual Symbol Systems (PSS) account of conceptual processing. PSS is a theory of knowledge grounded in cognitive psychology and neuroscience. Similar to Antonio Damasio’s Somatic Marker Theory and Convergence Zone Theory, PSS simultaneously processes a large number of modal states by focusing on the circuits of the brain’s “modality specific systems” (p.204) rather than depending on ‘slow’ sensations of the muscles and viscera. The authors argued that PSS’ speedy and refined process counters criticisms about the variations and reaction speed of the body because “conceptual representations are supported by simulations in modality systems” (p.190).

Six studies by Schubert (2005) supported how image schemas influence perceptions of abstract concepts: that metaphors of *power* can be taken literally with regard to the vertical spatial axis. The important factor about metaphors is that they have a perceptual-motor basis for involving mental simulations. The first study surveyed the agreement of the mental schema of

power by applying one of the pictures of eight angles shown by a small black circle relative to a white circle (0 degrees would show a white circle connected to a black circle horizontally, while 90 degrees would show a black circle directly above the white circle) to assess “whether being powerful and being powerless is associated with high and low positions in space, respectively” (p.4). Seventy-eight, mostly female college students in Germany participated and placed their circles according to the best image that suited 18 random propositions of verbs associated with power (e.g. weaker than, has influence on). A one-sample t test confirmed results that powerful positions showed angles larger than 45° , $t(77) = 10.29$, $p < .001$. The second study was built on the first to determine how spontaneously such upward schemas were used to judge power. Eighty participants who compared two groups made quicker judgments when seeing powerful groups represented at the top and powerless at the bottom, both showing significant effects – $F(1, 78) = 11.91$; $p = .001$ and $F(1, 78) = 4.12$; $p = .046$. The metaphorical depictions and the motor responses of pressing the upward or downward cursor coincided with the results. The third and fourth studies attempted to replicate the same ideas and determine if this motor component was influential in the judgment about power. When using animal images for the sixth study, their positions on the screen affected the judgment of powerful- or powerless-ness only for animals that were already perceived as already powerful (such as a lion) $F(1,106) = 1,415$; $p < .001$. This was presumably due to the priming effect of the unambiguous status of the animals. A meta-analysis of the six studies determined that, at least within English-German speaking participants, “the social concept of power is embodied in vertical spatial positions” (p.16) and can elicit a variety of emotions depending on one’s sense of experience of power and its representations. These are reinforced through cultural perceptual symbols such as charts that represent higher rankings at the top; or larger office spaces afforded to those in power within organizations. From

this notion, the body is the site for social perception, action and emotion (Niedenthal et al., 2005; Barsalou, Santos, Simmons, & Wilson, 2008) as well as the conceptualization of languages and symbols (Niedenthal, Winkielman, Modillon, & Vermeulen, 2009).

Zwaan (2009) cautioned that the evidence for many embodied cognitive studies is underspecified. The real-world context of processing information simultaneously with multiple stimuli cannot account for the nuances of combinations of words, for example. Perspective taking is also varied according to culture.

Cohen and Leung (2009) found that “the anthropological emphasis on the practice, ritual and what people actually do with their bodies” captures the ways in which “our physical bodies create, instantiate, model and transmit our attitudes, emotions and values” (p.1287) psychologically. In their first experiment, the authors studied how a person’s cultural pre-dispositions to a moral value may manifest through embodiment. Latino and Anglo-American men were directed to do a ‘vision test’ while holding a board at waist level to supposedly manipulate and measure their oxygen level. The participants had to adjust their bodies to either stand in a position in which the head and chin was held high, or bowing down to be able to complete tasks that were administered to them. Anglo men who were primed about ‘honor concepts’, such as reputation and female purity were more likely to embody these honor concepts, whereas for those who received neutral priming, the postures had no effect in their moral views. For the Latino men, embodying the posture was enough for them to put them in the honor mindset, highlighting the significance of the body’s role in how cultural values are embodied. In the second experiment, Cohen and Leung tested the moral codes of universalism versus particularism. For the particularistic representation, the ‘hug’, which is a bonding gesture, was selected. For the universalistic posture, ‘rectitude’ was chosen. The collectivistic Asian

culture is generally focused on relationships and multiple versions of realities (particularism) relative to the more individualistic, rule and contract governed American ideals (universalism). Without revealing the intent of the postures, Asian-American students who were ingrained with both particularistic and universalistic schemas of moral behaviors were directed to: (a) keep their arms in a circular hold and squeeze a cushion and pump their arms every 5 to 10 seconds; and (b) “sit with their chin above a string of a certain height” (p.1283). These were done under the guise of measuring the blood flow in their central cavity. The researchers found that the different body postures guided the Asian-American students to make moral judgments in context – to lie for a friend to cover for them in the hug posture (particularism), and to resist the temptation to cheat for personal gain (universalism) while in the straight-backed rectitude posture. This experiment again shed light on the complex cognition of those exposed to several cultures who have the ability to switch frameworks of embodiment.

The third experiment by Cohen and Leung (2009) looked at the ‘hard’ (ideals and values) embodiment of culture and their ‘soft’ (mental imagery) representations. Students from four different religious backgrounds (Muslim, Hindu, Jewish and Protestant) were recruited and asked to perform two video game tasks separated by an interval. During this interval, the experimenter told the participants to warm up their hands while rubbing the two hands together, as if washing. Based on neurocognitive research that *disgust* was a form of pre-wired embodied cognition, behaviors that would invoke disgust were assessed through the priming of the hand-washing gesture that would appear to purify the disgusting, contaminated behaviors. Muslims had the highest rate of condemnation towards blasphemy after engaging in hand-washing gestures, followed by Hindus, Jews and Protestants. While what was considered morally impure varied across cultures, a causal connection was established that engaging in hand-washing movement

generally increased moral condemnation towards impurity. What these experiments suggested was that mental processes and imagery are reinforced through bodily actions.

While the mechanisms for distinguishing cultural variations and/or multiple cultural frameworks within an individual may still not be apparent, embodying certain postures affects how people make decisions and behave. This adds another layer to linguistic syntax and construals that affect the simulation of language comprehension and social cognition. Accordingly, systematic CAT investigations may provide useful information on the variations of creative, embodied activity on the effects of cognition in culturally diverse populations. Conceivably, an arts-based investigation on imagery involved in soft embodiment may prove instrumental in uncovering new kinds of knowledge that are generally outside of the prerogative of research.

Concrete and abstract conceptualizations depend on images, whether through sound or visual channels. Connell and Lynott (2012) determined that relative to images, the “Strength of perceptual experience has a powerful bearing on how people represent concepts during word processing” (p.464). In one of their studies, the independent effects of each predictor – of perceptual strength, concreteness, or imageability ($p < .1$, $p < .05$, $p < .01$) were compared in the change in percentages of Elexicon reaction time and accuracy of data. Their study showed that abstract concepts are situated in ‘real’ experiences and that the representations of these are also situated in embodied experience. They were not, however, able to determine the affective influences on a concept. A newer theory by Vigliocco et al. (2014) posited that emotional experiences are relevant to the representation of abstract concepts, rather than concrete ones. An example of the role that emotional embodiment might play in social cognition are found in studies of empathy.

In a background study within the DMT field using the Diagnostic Analysis of Nonverbal Accuracy Test of Posture (DANVA2-POS), Winters (2008) initially found little agreement on perceived body postures and emotions. Subsequently, she investigated whether embodying emotions as opposed to viewing a person model body-postures changed the level of agreement. Forty-one participants (*male* = 4, *female* = 37), of which 16 were White, 20 Black and five Hispanic, were recruited from graduate and undergraduate programs in psychology and the creative arts therapies from the New York City metropolitan area. Participants were randomly assigned to either: (a) observe a model (with her face covered) embodying 24 postures from the DANVA2-POS for two seconds each; or (b) view a photograph of each posture and then embody the posture. Participants then wrote down feelings associated with each posture. Five board certified dance/movement therapists validated the researcher's categories. Findings showed general agreement among participants regardless of embodying or viewing body-postures. Independent *t*-tests showed no significant differences in responses between conditions, except for anger. Notably, angry responses increased ($p = .005$) when embodying, compared to viewing, angry postures. Winters concluded that the results supported emerging neuroscience research on mirror neurons that “*observing* someone embodying a posture engages the same neurological processes as *embodying* the same posture” (p.98). Her findings also suggested that explorations of anger through embodiment may be useful, supporting the views of DMT.

Neidenthal et al. (2009) carried out four randomized control experiments on the role of simulation of emotions. Participants were asked whether specific concepts were linked to emotions, and embodied simulation of emotion was assessed using a facial electromyography (EMG). Among the findings, of particular interest to CAT was that somatic responses were emotion specific. Embodied responses were also found to have a causal role in the conceptual

processing of emotions, the premise being that embodied cognition required a degree of simulation of emotions, “reactivating parts of the neural states that occurred when one experienced that emotion or processed a particular emotional cue” (p.1121). The difficulty with these kinds of neuroscience research, in addition to funding and equipment, has been the divide in the investigative space. Laboratories have not been accommodating towards the ‘felt’ embodied experiences. Up until recently, the scarce, evidence-based research in CAT could be attributed to the difficulty documenting somatically based approaches such as dance and theatre with a phenomenological knowledge base. However, technological advancements have facilitated newer research methodologies to bridge this gap.

An interdisciplinary neuro-aesthetic study conducted by Calvo-Merino, Jola, Glaser, and Haggard (2008) examined qualitative, aesthetic responses, alongside measuring neuromechanisms involved in viewing a live dance performance. Their study was distinguished from mechanistic, visual perception research in that consideration was given to the complexity of emotional, perceptual and cognitive stimuli connected with viewing a live dance performance. Six right handed males (mean age 26, $SD=2$) with no dance experience watched a set of 24 dance videos (12 classical ballet movements, 12 capoeira movements) in an fMRI scanner. The dancers’ faces were blurred. Brain activity was recorded and functional images were obtained, each comprising 36 contiguous axial slices. A total of 280 scans were acquired from each participant in a single 15-minute session. A second session involved a questionnaire to measure aesthetic response to each dance stimulus on a five-point Likert scale. The authors used a consensus approach that quantified “the aesthetic status of each individual *stimulus* by focusing on the group average response” (p.915). This allowed the researchers to identify the stimuli that activated the brain areas for the highest and lowest aesthetics ratings. Neural correlates of

aesthetics were found to be located in the right hemisphere, right premotor cortex and in bilateral early visual cortices (all $p < 0.0001$). The authors also identified whole body, high-speed movements with “a significant displacement of the entire body in space (e.g. horizontal jump)” (p.916) as the preferred movement characteristic. The activation within the mirror neuron system was stronger when viewing movements that the participants liked. Limitations of the study included the small male sample size with no dance experience. In a neuroimaging study, Aglioti et al. (2008) found that skilled athletes were more adept in recognizing and predicting free shot throws relative to other groups (coaches, sports-journalists and novices). “[O]nly athletes showed a time-specific motor activation during observation of erroneous basket throws” (p.1109) suggesting that expertise was related to a fine-tuning of motor activation. Hence, a wider sample and comparisons between experienced and non-experienced dancers may be informative in the context of Calvo-Merino et al.’ study. In addition, the emotional context of the viewing experience should be addressed, through consideration of musical preferences, for example.

Embodied Neuroscience and Phenomenology

Building on the above study, Jola, Ehrenberg, and Reynolds (2012) attempted to uncover the neuro-mechanisms involved in kinesthetic empathy and the phenomenological experience of watching dance through an interdisciplinary approach. Both neurophysiological data and first-person accounts about the dance viewing experience were gathered. One of the exceptional features of this method was that additional new technology allowed for the study to take place outside of the unrealistic settings of a laboratory. Jola et al. went to great lengths to simulate ‘natural’ conditions to view a live dance performance: with music, costumes, stage lighting and a reasonable length of performance time. Transcranial magnetic stimulation (TMS), which identifies functional processing in a matter of milliseconds, was used to measure and

quantitatively analyze cortical excitability to determine participant's engagement levels. This noninvasive instrument was set up with a magnetic coil placed on a swimming cap that participants wore. The coil amplified brain signals that were sent to the arm muscles, where the viewers' responses to movements could be recorded. Thirty-two participants ($n = 10$ males, $n = 22$ females) between the ages of 20 and 72 with no dance training watched three live solo performances: a ballet dance; an Indian Bharatanatyam dance; and a non-vocal acting performance – each lasting four minutes. After watching the performances, each subject participated in a semi-structured interview. Questions were focused on eliciting participants' embodied experiences. Cortical excitability data was matched with the verbal reports. Neuroscientific data showed that empathic abilities enhanced levels of cortical excitability when viewing gestural hand movements; and visual experiences enhanced cortical excitability when viewing more formal, stylized movements. The viewers' brains were activated, mimicking movements of the dances, regardless of dance training experience. Responses in the interviews indicated that culturally preconceived ideas and personal preferences affected the experience of watching dance, more so than its familiarity. The combined data showed that those who were naturally empathetic (based on qualitative findings) scored higher in cortical excitability, as did those who were already familiar with either of the dance forms. The authors concluded that these findings suggested kinesthetic empathy being related to the viewers' level of enjoyment. Although it was not immediately clear whether different parts of the body responded more, less, separately or in unison, the findings alluded to the communicative and social aspects of dance. Also, this groundbreaking study addressed a fundamental assumption of DMT that has long been recognized: how kinesthetic response is related to empathy. Jola et al.'s mirror neuron systems study incorporating new technology and collaborative methods raised many possibilities for

future CAT research. Another issue that should be addressed in the future is that of immersion – how is a three dimensional live performance experienced differently from a viewing of a digital video? Many dancers and audiences experience a live performance differently from an electronic reproduction.

A neuro-aesthetic study by Schubert, Vincs, and Stevens (2013) investigated subjectivity and engagement while viewing a live dance performance. The authors questioned whether perceptions of a dance performance were “arbitrary and stochastic, or fixed and deterministic within a given culture” (p.4). Twelve choreography students and professional choreographers participated in this study that measured their observations and continuous responses to a 12-minute, semi-improvised dance performance. After a background check, the participants were presented with the concept of ‘engagement’ and its definition. Participants were then taught to use the portable Audience Response Facility (pARF), in which they recorded their responses and levels of engagement twice per second, via a “synchronized stylus position measurement” (p.4) similar to a pen and PDA. This information was then transmitted to a central computer for later analysis where observer agreement was measured. The results showed approximately two-thirds agreement among the participants. Disagreements pointed to individual differences and/or a lapse in concentration and engagement in the viewing and recording task. Agreement levels rose quickly when there were surprises or unexpected changes in the dancer’s movement trajectory. However, consistent ‘good’ agreement correlated more with parts of the dance when the audience was “in tune” (p.10) with expectations of the dance. These results were consistent with the therapeutic concept of attunement and synchrony, and give credibility to the therapeutic notion of “meeting where the person is.” Although factors such as heritage, training, aesthetic preference, and age need to be considered for a more robust study, the efforts to start presenting

empirical evidence on the significance of engaging in the performing arts through state-of-the-art technology is a welcome development in interdisciplinary CAT research.

Christensen and Calvo-Merino (2013) presented an overview of combined, ‘empirical’ neuroscience and dance aesthetics research that has been published so far. The authors raised a number of cautionary methodological points. One relevant to CAT research is on the ambiguity of how music can be better integrated into the aesthetic experience of dance performance. Another issue is that there have been no reports on emotional processing brain activity during the viewing of dance. Information about affective responses to symbolic, artistic representations could assist CAT research to discover how and what the creation of symbols through sensory modalities communicate. This may be achieved by shifting the focus from viewing the body as an embodied-cognitive entity (through the direct experiencing of sensation, feeling, intuition and perception) to a more phenomenological experiencing based on the artists’ unique, personal and non-generalizable aesthetics.

Arts-Based Research

Several strategies were borne out of the frustration with the methodological limitations of qualitative research, including “creative practice as research, performance as research, research through practice, studio research, practice as research or practice-led research” (Haseman, 2006, p. 3). In ABR, the term practice is used instead of, or interchangeably with method, which encompasses the understandings of advancing new knowledge, as well as expanding knowledge about the practice itself. There are varying degrees with which the arts are used in research that reflect the disciplinary paradigms and philosophical foundations.

For many CAT and other social science researchers who use the arts, creating dialogues with communities that can benefit from the research knowledge is a motivator and goal.

Performative social scientist, Kip Jones (2006), for instance, argued that performative and participatory representations of research created channels between research findings and the communities whose realities are often separated from them. He believed that the arts have the capability to express the visual and spatial dimensions for certain types of knowledge that cannot be represented fully through traditional temporal and linear text-based representations. While proposing that changes should be made to the rules of publication by incorporating improvisation and spontaneity as alternative dimensions to ‘static’ research, he was not concerned with reinventing the standards of academic publishing. Rather, he believed that the procedural and dissemination methods used in performative social science and/or ABR required an ongoing examination within the context of qualitative research.

In the CAT field, through a critical race feminist paradigm, drama therapist Sajnani (2012b) expounded on the moral obligation to extend one’s capacity to respond and improvise as artists. This is contingent upon staying engaged and answering an-other in specific situations in concrete terms and acknowledging “that our theories and prescriptions for practice ... are produced from within particular subject locations that, although they are not fixed, afford particular insights and perspectives while obscuring others” (p.190).

Others, such as Haseman (2006) proposed performative research as a new research paradigm that distinguishes itself from quantitative or qualitative methods. Its main distinction is that the presentation of findings “must be made through the symbolic language and forms of their practice” (p.4). Instead of translating “the findings and understandings of practice into the numbers (quantitative) and words (qualitative) preferred by traditional research paradigms [...] for the choreographer it is the dance” (p.5). However, this puts the burden on the audience or reader to critique the research through their possibly limited experience with the modality of

practice being used. Correspondingly, Prior (2013) believed that artistic knowledge tends to remain tacit due to its nature of manifesting through the execution of one's craft rather than through a "meta-dialogue" (p.60). He argued that meaning is generated through an expert practitioner's embodied experience, spontaneous *doing*, and through reflexivity and therefore, for an actor to communicate this in "theoretical terms" was "difficult" (p.64). This raises an interesting conundrum regarding the democracy of knowledge: the accessibility and honesty about for whom the research is intended for.

Certain types of knowledge may need to be discussed amongst professionals in the field. A lay person may not gain much from a research presentation about the role of auditory cues in modulating the perceived crispness and staleness of potato chips (Zampini & Spence, 2004). On the other hand, research that involve other people requires a critical lens and an ethical procedure to produce knowledge that does not continue to marginalize and oppress.

As an indigenous Maori researcher, Tuhiwai Smith (2012) stated that when reading research texts, she is generally excluded from the focus, which requires her to orientate herself to a text whose worldview is mostly European-American. She also raised the invisibility or the de-humanization of indigenous peoples in such texts and the unrecognizable re-presentations of themselves. This power difference can be observed in social science research, not only between the researcher and the researched, but in a larger social hierarchy that impact the persons involved. One way to mitigate this is through approaches that attend to relationships with the researched through reflexive analyses that impact the validity and reliability of the study. CAT researchers are well positioned to respond and apply the premise of the questions that indigenous activists ask with other marginalized populations:

Whose research is it? Who owns it? Whose interests does it serve? Who will benefit from it? Who has designed its questions and framed its scope? Who will carry it out? Who will write it up? How will its results be disseminated? (p. 43)

The Communicative Potential of Arts-Based Research

According to Barone and Eisner (2012), ABR concerns “inviting members of an audience into the experiencing aspects of a world that may have been otherwise outside their range of sight and to thereby cause them to question usual, commonplace, orthodox perspectives on social phenomena” (p. 56). The move toward public scholarship is a phenomenon that is in part, hastened by social media. While there may always be a gap between understanding the knowledge of specialized disciplines such as molecular biology and the general public, researchers can use ABR as “an effort to extend beyond the limiting constraints of discursive communication in order to express meanings that otherwise would be ineffable” (p. 1).

In the field of expressive therapies, Estrella and Forinash (2007) have proposed a combined narrative and arts-based approach as means for social justice, reconciliation and giving voice to the marginalized. Likewise, Sajnani (2012a) advocated for artist-researchers to “engage in the arts to shed light on aspects of the human condition that remain obscured in prose or numeric data” (p.80). As such, much of the discussion around the power of the arts in research led to raising questions and opening up avenues to advocate for social justice through artistic, performative representations (Cole & Knowles, 2008; Sullivan, 2010; Sajnani, 2012b; Hesse-Biber & Leavy, 2013).

Keen and Todres (2007) focused on discovering the impact that qualitative research that were disseminated beyond the journal article or conference presentations had on those whom these studies were about. The authors compiled a list of 62 studies published between 1992-2004

that addressed concerns of communicating qualitative scientific findings in non-traditional (non-textual) ways. Among the modalities, they found ethnodrama and dance to be at the top and musical DVD productions at the bottom of the list. Within arts-based health research, Boydell, Gladstone, Volpe, Allemang, and Stasiulis (2012a) conducted a scoping review of 71 studies. Defining ABR as: “1. a process to produce knowledge, and 2. a product to disseminate results” (p.3), ‘empiricism’ was coopted as a benchmark to distinguish ABR from artistic projects that are generally used “to promote health literacies, empower participants and change health related behaviors” (p.3). Among the modalities, photography and theater were found to be used more than dance and poetry, with dramatic representations holding strongly at the top. The main criticism of both reviews concerning methodology was the lack of critical reflexivity among researchers in examining the impact of the arts.

In a relatively new approach within health care research, Parsons and Boydell (2012) focused on ABR’s potential as a vehicle for knowledge translation. They claimed that the interactive nature of embodied arts-based representations can affectively and cognitively engage stakeholders who need to be informed of health-care issues from an insider’s perspective. They proposed long-term studies on the impact of such approaches, but were hopeful that the creative and dynamic nature of knowledge translation through the arts were well-suited to alter perceptions of normalcy for patients and make changes in best practices for clinicians. Still, there remain gaps in the literature: the lack of a critical dialogue with regard to the impact of the arts in health-care research; the need to focus on the criteria to assess such studies; and the need to address the ethical challenges of engaging in this work. Aside from the risks of misrepresentation to accurately communicating a study, there are ethical implications of divergent interpretations, as well as the question if these promote new knowledge. What is brought to attention are: (a) the

relationships between researchers and the researched; and (b) more broadly, the ethics of engaging in artistic practices.

Challenges in arts-based health care research. Boydell et al. (2012b) raised a number of questions regarding the ethics of artistic representations concerning interdisciplinary health care research collaborations. The authors pointed out that arts-based research literature is focused on “content and form,” but “methodological and theoretical frameworks for other researchers and artists interested in this breakthrough work are lacking” (p. 2). For instance, Fraser and al Sayah’s (2011) systematic review of 30 arts-based health care studies showed that ethical issues around data ownership, arts-based data analysis, and participant anonymity were main concerns that stem from the lack of critical scrutiny around the use of the arts in research. These concerns were later echoed by Bruce et al.’s (2013) narrative nursing study whose intent was to make explicit the hidden dimensions of patients’ experiences and increase engagement with the public. Anonymity had to be negotiated as the images produced often depicted the participants themselves; and there was also the need for ongoing consent, having to ask family members for permission when patients passed away.

Boydell et al. (2012b) conducted a workshop with 22 participants to systematically identify and address ethical challenges in working with human participants using artistic means without oversight. They included a visual arts *graphic recording* component that appeared like a map consisting of illustrations, key words, phrases and charts to capture the “content of a meeting, discussion, or conversation in real time” (p. 4). The participants gave feedback to the graphic recorder regarding the interpretations and representation of the meeting. Five key themes were identified. Some of these, such as the issue of “ownership” concerned the divide between

researcher and artist – which may not be a concern that a creative arts therapists-researcher needs to contend with. “Interpretation,” on the other hand, is paramount to CAT research:

How much discretion should be given to artists to select which research messages they will convey? What if artists focus only on aspects that can be easily dramatized? Does the selection process allow research participants to challenge the interpretation that the artists have given to their words? Would leaving the performance open to a greater level of interpretation result in a product that is less ‘true’ to the research? How do we deal with different interpretations of data by artists and researchers? Specifically, what are the potential risks of misrepresentation? What are the ethical implications of divergent interpretations? (p.8)

Considering that the arts can communicate multiple meanings, these questions concern the researcher’s roles and their ethical relationships to their participants. Another theme that was identified was “dangerous emotional terrain” (p. 10). The authors raised whether “Asking people to participate in communicating their health issue in a more embodied and representational manner has the potential to be perceived as being too demanding, or too ‘risky’” (p.11). In addition to communicating potential discomfort to the audience, they discussed how past violence or mental illness experiences could have unforeseen consequences for the performers themselves. Having an understanding of the potential for vulnerable experiences to be shared is important for all arts-based researchers who may embody and/or enact these, both during the data collection procedure and when representing research findings. Lastly, the issue of “aesthetics” was identified. There are crossovers between the theme of truth and interpretation of aesthetics in that what is considered good art may be determined inter-subjectively, based on experiences and expertise, and also with regard to the goals and context of the research.

Leavy (2015) drew attention to the shift in the paradigm of ABR for evaluating their methods, since the way in which research was evaluated for positivistic paradigms cannot be applied to the type of knowledge being built. The way in which the quality of ABR is evaluated follows the qualitative paradigm shift that “required new methods for achieving trustworthiness and new concepts that properly identified the benchmarks against which scientific “success” could be measured” (Leavy, 2015, p.8). As a whole, different arts-based modalities are beginning to address these and other methodological issues.

Arts-Based Methodologies

Nelson (2006) pointed out that embodied, tacit knowledge “is not always brought forward as evidence in research” (p. 113). To make it more explicit, he proposed that arts practitioner-researchers record, reflect critically, and articulate the artistic context that is not immediately transferrable into words through theoretical frameworks. Spatz (2011) argued that practice as research should account for the protocols of scholarship such as “documentation, assessment, peer review, consensus, specialization and disciplinarity” (p. 52) – focusing on the specificity of a technique to clarify what can be communicated. Leavy (2015) elaborated that the tools that arts-based researchers used are being carved out, “And with the tools they sculpt, so too a space opens within the research community where passion and rigor boldly intersect out in the open” (p.3). The following section presents some of the challenges that were identified in arts-based researchers’ exploration of finding answers to their questions and doing their work.

Narrative. In the early 1990s, Chase (2005) found “few empirical sociological studies based on interview material that could serve as methodological models for the particular way” (p.651) she wanted to treat her interviews with women superintendents as narratives. Narratives in the disciplines of psychology and sociology are first person accounts that generally involve

“long sections of talk—extended accounts of lives in context that develop over the course of single or multiple interviews (or therapeutic conversations)” (Riessman & Speedy, 2007, p.430). Analytic attention is given to the selection of events, organization and connections between them to evaluate and construe meaning for a specific audience (Riessman & Speedy, 2007). Narrative researchers “develop their own voice(s) as they construct others’ voices and realities” (Chase, 2005, p.658). The ‘results’ are then narrated in writing or performed “for particular audiences” as a means of representation of the research “in ways that are both enabled and constrained by the social resources and circumstance embedded in their disciplines, cultures, and historical moments” (Chase, 2005, p.667). These are understood to be arts-based presentational ways of knowing because they encompass “descriptions of experiencing” (Liamputtong & Rumbold, 2008, p.3). While narrative inquiry can give voice to the socio-cultural experiences of those who have been oppressed and/or underprivileged, the clarity of whose are the voices and interpretation being represented needs to be accounted for.

White and Drew (2011) brought up concern for the methodological emphasis on giving voice to participants, specifically youth, without critical analysis by the researchers. Through their longitudinal ethnographic research with chronically ill youth 10-18 years of age, seven researchers “investigated the relationships between identity, social connectivity, educational experiences and chronic illness” over the course of 36 months (p.4). In addition to focus groups and interviews with parents, educators, and health care professionals, the 31 youths engaged in in-depth interviews and were encouraged to take photographs and produce videos that showed what their lives were like. The authors recommended that the accounts be presented as “narratives created by the researchers, based on interpretation of what they had been told through the interview process” (p.5). Communicating findings from the researcher’s situated location can

still shed light on the voices of the participants and contribute to general knowledge on the realities of a given population. At the same time, more can be done ethically to account for how the researcher ended up choosing the ‘voices’ to highlight, and which ones to ignore.

Theater. *Handle with Care* by Sinding, Gray, Fitch, and Greenberg (2002) was cited as an exemplary work of artistic dissemination by Keen and Todres (2007). This theatrical representation was based on two Canadian studies: (a) asking about information needs of women with metastatic breast cancer; and (b) interviews with medical oncologists examining their views on the issues these women had raised. The arts-based portion of the study focused on the process of developing the script. Evaluation questionnaires were sent out in seven Ontario cities. Five hundred and seven service users and family members (who were 60-70% of the total audience) completed these, all of whom agreed that they had enjoyed the production and had benefited from seeing it. Nearly all believed the drama was true to real life experience, and expressed the desire to see further productions about living with cancer. Further feedback from 249 health professionals (between 40-50% of the total audience) showed that the use of research transcripts had increased the validity of the presentation and that they helped engage the participants in refining the representational outcome. The actors were neither instruments nor interpreters, but creators – “internalizing” and processing the material subjectively in a “spirit of inquiry” (Gray & Sinding, 2002, p.18). The researchers’ commitment to transparency stood out.

Drama and dance. Rossiter et al. (2008) tracked the interdisciplinary collaboration between health psychologists and actors who utilized dramaturgy to attempt to bridge the communication gap between “the live action of the informants with the live action of the actors, to link the interpretation demanded by the art, and required by the science” (p.280). Based in Toronto, the theater performance *After the Crash* was created to inform health practitioners of

the experiences of those with traumatic brain injury (TBI) to improve care. The play was created based on data collected from six focus groups attended separately by TBI survivors, their family members and health care providers. Three narrative examples from the process of creating *After the Crash* were given to support the methodological potential of the role of a dramaturg to mitigate interdisciplinary challenges. A dramaturg is someone with multiple functions in a theater production. They may act as translators, playwrights, historians, and many more to maintain the integrity of “the *ideas, concepts and goals* of the production” (p.279). The authors found that for interdisciplinary collaborations to succeed, the dramaturg needed to be fluent in both art and science, not to literally translate concepts, but to understand the needs of academic and artistic productions. Rossiter was tasked with analyzing the data, which were transcripts from the focus groups. She noticed that scientific interpretation was to deduce based on the live event (focus group), while the artistic interpretation was to add to the static text (transcript), which she described as “lifeless and inert” (p. 281). Rossiter drew on Anna Deavere Smith’s work, who is a playwright that goes out into the field and collects interview recordings from people at political and social events (e.g. Los Angeles riots). Rather than transcribing each, Smith paid attention to the breath and other patterns of speech, treating her interviews as if they were monologues or songs. Because Rossiter did not have the embodied understanding of the inflections and tonalities of the focus group, she returned to the audio recordings to interpret and add to the data. In this way, traditional qualitative coding included themes, and the artistic coding included narratives that offered aesthetic structure such as “‘monologue’, ‘dynamic’, ‘potential scene/setting’ and ‘character’” (p.281) that related back to the themes. In moving these themes, the actors who had never engaged in research were first educated in the approach, and then took on an iterative process of imagining the themes and going back to the transcripts. During this

process, both sensitivity to the experiences of the participants and artistic and scientific ‘truth’ and ‘validity’ were negotiated. Some of the concerns that arose in the production of the research were the ambiguous elements of dance and other movement sequences that were included “to capture physically and nonverbally some of the core *emotional* realities expressed in the focus groups, found often in the *tone* of the words spoken, as opposed to just the words themselves” (p. 283). Of the three movement sequences, a portrayal of the mechanistic and routine structures of care from the perspective of the caregivers was reported to be accurate. The next sequence of the care was enacted from the perspective of the patients, but also through the lens of the actors who infused their personal experience of health care and empathically connected to the experiences of the TBI patients. The feedback, unexpectedly, was more positive amongst the scientists and those in the healthcare community rather than from those in the artistic community, who were confused. This was likely due to the artists’ inexperience with what the dances were symbolizing, while the health care practitioners could relate on an emotional level and make sense and reflect on the performance based on their embodied knowledge of what it is like to work with TBI patients. Questions remained with regard to the ethics of integrating the artists’ experiences to convey ‘findings’ and scientists believing that only valid ‘data’ should be portrayed. However, the relational impact in which the research participants are humanized cannot be undermined. A study by Karcher and Caldwell (2013) emphasized the personalization through visual representations of research. The direct experiencing or the embodied aspect of engaging and seeing others in the community stimulates emotional responses, which can be accessed at a later time. In any case, as both dancers/artists and social scientists, dance/movement and other creative arts therapists may be well equipped to navigate and explore some of the difficulties raised by Rossiter et al.

Music. Carless and Douglas (2011) explored the communicative contributions of a narrative, performative approach through song-writing. For them the use of a non-traditional artistic methodology was important to preserve the intimacy that gets generated when exploring embodied, first-person accounts of experiences. The art work was perceived as a metaphor to connect: a way to take others' experiences seriously and "connect to issues faced by researchers and practitioners in the fields of guidance, education, counselling and psychotherapy" (p. 442), rather than proffered as 'proof'. The authors analyzed 154 audience responses to two performance ethnographies. The first was *Across the Tamar*, a 30-minute live performance and audio CD which explored older women's experiences of physical activity and health in Cornwall, England. The second was *Under One Roof*, a 35-minute live performance and audio CD that examined the "lives and needs" (p. 443) of adults aged 50 and over, living in assisted urban housing. The participants, who were mainly students and academics in the field, were handed open-ended questionnaires prior to the performances for feedback; and also engaged in a 30-minute group discussion after each performance. With additional private feedback via email, a thematic analysis of the data produced five themes: engagement and impact; stimulating emotional responses; supporting embodied knowing; triggering personal reflection and local knowledge; and issues of genre and style. The music appeared to have added to the impact of the words that brought not only novelty, but renewed attention to the issues being addressed. Emotional stimulus was expressed as music having the capacity to embrace multiple emotions simultaneously that also led to empathy. On the other hand, some audiences felt the music to be a distraction and could not comprehend its relationship to "physical activity," for example. Others felt that the music helped convey images that supported an embodied knowing of the experience of those being represented in the research. The music provided a temporal landscape for the

audience members, whom it in turn triggered to reflect on their personal and/or professional lives. The aesthetic experiences of the audiences seemed varied. While some felt the music informed the research, others did not. Preference and taste had a lot to do with this reception, as well as the preparedness and receptivity to understanding the meanings conveyed in the music.

Dance. Boydell (2011) created a dance, *Hearing Voices*, collaboratively with a choreographer, musician, dancers and researchers to illuminate the stigma of psychosis and other mental health issues. She was interested in how “the creative arts can be used in the design, process, analysis, interpretation, and communication of research results” (p. 13). Sixty interviews about pathways to obtaining mental health care were conducted with young participants and their parents, friends, case workers, psychiatrists, general practitioners and teachers. Rather than focusing on literal translations of movements, Boydell was more concerned with reflecting the emotional content of the participants’ experiences. For the choreographer, this meant that ‘character movements’ rather than technical ones could better represent this. Nevertheless, the artists struggled to translate the case study summaries and anonymized transcript data; and maintain scientific rigor while simultaneously addressing aesthetic elements of the production. Like the actors who were involved in Rossiter et al.’s (2008) study, the dancers were inclined to relate their personal experiences to have an embodied understanding of the data and used narrative coding, again, similar to Rossiter et al.’s choice. Due to the quantity of data summaries, articles and parties involved, a ‘script’ was developed to track and “condense information into a story-like dance” (Boydell, 2011, p.13) that could educate an audience; as well as to inspire the musical composer. In the end, two case studies were selected that were unique but also offered universal themes expressed by others. Perspectives of the researchers and artists evolved together through multiple meetings and later with the audience members. One such example was the

evolution of treating the help-seeking process as a systemic, rather than an individual one. Boydell concluded that this co-created, research-based dance allowed the artists and researchers to “address the visceral, emotional, and visual aspects” of the research that are “frequently invisible in traditional academia” (p.16). She regarded this as a way to produce and disseminate generalizable knowledge, reach service providers, policy makers, families, patients and the general public.

Rigor in Arts-Based Research

Bruscia (2005) identified four standards of integrity for qualitative music therapy research: methodological, personal, interpersonal and aesthetic. The criteria for methodological integrity is for the phenomena under investigation to unfold with ease, which requires responsiveness of the researcher to choose appropriately and be flexible with the methodology. The hallmarks for interpersonal integrity are the situatedness of both researcher and participants, as well as their relationship to the study; clarity of voice(s); and respectfulness. For personal integrity, Bruscia raised caring and authenticity – knowing who the researcher is and acting accordingly. The types of authenticity include that of intent (of doing research), paradigm, focus, context (or situatedness), method, findings, and communication.

Regarding aesthetic integrity, Bruscia (2005) discerned four qualities: creativity, enlightenment, structural beauty and expressive beauty. He asserted that “aesthetic factors influence the quality of our knowing” and that there was a connection between truth and beauty in research: “They are inseparable within the human experience, they are inseparable within the music experience, and they are inseparable in the music therapy experience. How can they be separate in research on music therapy?” (para. 48). This echoes Playback Theater founder, Fox’s (1994) view that beauty (as aesthetics) emerges through being in harmony with nature. While

aesthetics – what is appropriate or competent – is culturally determined, aesthetic quality as the hallmark for a body-based, sensory practice and knowledge has not been investigated enough. Bruscia also put forth the researcher’s humanity and relational capacities as determinants for ethical, rigorous research: “Subjectivity and intersubjectivity are not new freedoms, they are new responsibilities which profoundly influence the quality of our knowing” (para. 49). The quality of standards and ethics are inseparable and are dictated through the body and its relationships.

Barone and Eisner (2012) set forth six general criteria as a starting point for evaluating and strengthening credibility of ABR: cutting to “the core of an issue” is *Incisiveness*; *Concision* is the minimal use of space or verbiage to communicate the phenomena being researched; *Coherence* is how the form of the arts method holds together; *Generativity* is the way in which the research can ripple out and affect those who come into contact with it; *Social Significance* concerns the ideas that count; and *Evocation and illumination* are feelings – “epistemological means for the acquisition of meaning” (pp. 148-154).

More recently, Leavy (2015) raised that the quality of the work can be assessed based on “truthfulness and trustworthiness” (p. 273). She proposed that these two notions in ABR “may be thought of in conjunction with the concept of resonance” (p. 273). Whether the work *feels* authentic becomes critical.

Arts-Based Creative Arts Therapy Methodologies

Drama therapy. With ethnodrama and theater being popular arts-based modalities, drama therapy has been at the forefront of arts-based CAT research. In promoting the use of ABR in drama therapy research for the purpose of making socially significant contributions, Sajanani (2015) cautioned that the differences in methodological credibility needed to be addressed. She proposed that one way to increase the credibility and transferability of embodied

approaches to research was to put forth the benefits and limitations of specific techniques. Such insight on the creative, artistic process may partially stem from her arts-based inquiry process using an embodied practice called Developmental Transformations (DvT). Through the use of sounds and movements she referred to as ‘bodystorming’, Sajani (2012a) explored her colleagues’ “experiences of listening to and working with traumatic narratives” (Sajani, 2012a, p. 81). In addition to highlighting the impact of working with traumatic narratives, the embodied exploration revealed the difficulty for practitioners to let go of their “habitual responses and desires to interpret the images that arose” (pp.81-82).

Highly relevant is the work of Sajani, Linds, Ndejuru, and Wong (2011) who are members of the Living History Ensemble comprised of “artist-scholars diversely experienced in theatre-based facilitation, drama therapy, and community organizing, as well as various forms of improvisation” (p. 18). Drawing from Peggy Phelan’s metaphor, they formed the *Bridge*, an “original interactive theatre form” (p. 18) intended to understand the experiences of those who suffered collective violence and displacement. At the core of the Bridge was Playback Theatre (PT), which is a non-scripted form of improvisational performative theater that “involves a “Conductor,” a facilitator who invites stories from audience members (referred to as “tellers”) and ushers these narratives onto the stage where they are interpreted by actors and underscored by a musician” (p.20). There is reflexive engagement with the audience/witness/community members after each performance. PT was used to deepen and elicit affective, aesthetic, relational knowledge. Responding to the critique that the actors in PT interpreted intimate stories of the tellers without exposing or sharing any of their own, the members considered what an ethical approach to engaging with communities through an arts-based method might look like. Consequently, rather than simply regurgitating the story back to the audience, the members of

the Bridge sought to meet the teller “in the story rather than simply playing it back” (Sajjani et al., 2011, p. 23). Some of the challenges addressed by this methodology were: re-marginalizing the tellers’ experiences by blending unlike elements and uniformly depicting them; the immediacy of interpreting the stories in a precise manner; and using metaphors that can ring true with the tellers’ experience while holding the space for emotional containment. When the actors showed themselves in the stories, instead of putting themselves aside, the tellers were able to see expanded perspectives on their stories and felt that they could open up and share further. This willingness for the arts-based researcher to be vulnerable appears to be a valuable aspect of embodied forms.

Using performance as a framework in a drama therapy supervisory context, Landy, Hodermarska, Mowers, and Perrin (2012) explored the “shared body of the therapeutic encounter – the client’s body, the therapist’s body and the co-created embodied narrative of the treatment” (p.50) through role playing. Distinguishing drama as grounded in a transformative enactment relative to other expressive ‘art-making’ processes, the authors used the shifting of roles – from therapist, to supervisor, to client – to try on different perspectives and reflected on the relational dynamics involved in the “transferential/aesthetic” (p. 50) process. In one case study, a supervisee explained a repeated performance of a script devised by his six-year-old client. They described this repetition of “both identification with the other and projection of one’s self onto the other” as the essence of relationship: “the royal road to love” (p. 51). The authors concluded with a statement addressing the role of the arts-based researcher as a performer:

Art-based research is an enquiry into phenomena through a creative, performative process. It obliges the researcher to be not only a participant-observer of the research, but also a performer. In doing so, the researcher is challenged to turn the metaphorical lens

back on herself and dare to describe not only what she sees empirically, but what she experiences somatically, and how that experience of embodied self intersects with her experience of the other, the object and subject of her research. (p. 56)

The embodiment of the therapist is viewed as central to holding the ‘truth’ regardless of the words, videos, and other forms that are used. This raises the empathic and technical capacities of a researcher to authentically embody and enact the person’s experiences that may be explored.

Snow and D’Amico (2015) used a performance-based ethnography approach called ethnodrama, in combination with drama and art therapy techniques with eight 14-18-year-old youth who were living in a residential care facility in Montreal, Canada. After being interviewed, the participants engaged in art and drama therapy interventions over the course of 14 weeks. In creating the script, the authors used Mienczakowski’s *informant validation*, which allows the participants to have a sense of control and to develop ownership of their experience. The performance, entitled *Inside the System: An Ethnodrama in One Act with Two Songs*, was based on a validated script made up of themes from the interviews, artwork and drama therapy experiences. This study was expected to have a therapeutic effect of reducing both the youth’s perceptions, as well as having an educational, emancipatory effect on the community’s stigmatization towards this population. Likely because the audience members were affiliated with the youth center as either staff or family members of the youth, pre- and post- audience questionnaire showed mostly positive attitudes towards the girls’ experiences. The audience was predominantly affected by the authenticity of the youths’ voices, which satisfied the objectives of this project to empower the youth. Although no measurement was taken with regard to the change in self perceptions, this study offered a valuable method for healing a community of

people (residential youth) through giving voices to individuals, and simultaneously integrating them through challenging the perceptions of the larger society.

Most recently, drama therapist Wadsworth (2016) explored the importance of emotional training for creative arts therapists. Five creative arts therapists underwent two 2-day initial training sessions for Rocky Mountain Alba Emoting (RMAE) with six weeks in between. Participants were asked of their experiences during and after the training in the form of written responses and original arts pieces. Wadsworth analyzed these artistic data via a process of intuitive dramatic enactments. Final results were then presented in a series of dramatic performance pieces, of which the dialogues used direct statements of participants from the data. These were supplemented by the researcher's journal reflections. A key intent of Wadsworth's performance pieces was to allow the reader to "more fully experience and not just read about what this emotion training caused participants to feel, think, and do" (p. 149). Although his performances elicited varying responses from the participants, ranging from no feedback to feeling partially to fully representative of their emotional experiences, the vulnerability and exposing nature of the training was felt. Participants expressed discomfort about seeing and hearing their words reflected back to them through a dramatic enactment by the author, who was both the researcher and trainer for RMAE. Simultaneously, however, they also experienced a heightened awareness of themselves. This is akin to the therapeutic process in which an emotional discomfort can afford awareness of clients to accept what is true or real, and be transformed.

Dance/movement therapy. The earliest form of DMT therapy research that utilized the body and dance was by an authentic movement practitioner who claimed that "experiences and information that come from the body should begin to be articulated and credited when

appropriate” (Olsen, 1995, p.7). Olsen’s (1995) premise was that the body knows more than what is known on a conscious level, and the reflexive dialogue between inner and outer experiences that is part of authentic movement work could be a way to address research questions. Other dance/movement therapists have drawn parallels between the process of creating a dance and doing research.

In addition to authentic movement, Brown (2008) utilized music, sound, writing and drawings to have her participants answer her two research questions about the importance of art-making for the professional identity of dance/movement and other creative arts therapists. Forty-five dance/movement therapists/co-researchers were divided into eight sub-groups and their process was tracked and distilled over the course of two years. She viewed the act of creating art as “both content (raw data) and process (analysis), in art-based research” (Brown, 2008, p.118). This idea is linked to that interview data is created relationally, and how “dialogic interactions transform into data” (White & Drew, 2011, p.6). Brown illustrated one way in which the process of improvisational movement using sounds could be used for analyzing data.

In her arts-based exploration of her DMT students’ attitudes surrounding their imminent research projects, Hervey (2000) instructed her students-participants ($n = 15$) to: rate their attitudes on a scale of 1-10 with 1 being “completely positive” and 10 being “totally negative” (p.134); do a squiggle drawing of their attitude in the moment; and write three sentences describing their attitudes. The numerical data were tabulated in a histogram. Drawings were shared amongst the participants who were then grouped by similar aesthetic qualities in their drawings. Each group then performed a dance for the larger group, who offered feedback. The verbal data were then compared with the aesthetics that were highlighted in each dance performance. Instead of focusing on the meanings, Hervey instructed her students to attend to the

aesthetic and visual elements. While anxiety was notable in half of the drawings and dances, yet, therapeutic containment was also visible. Hervey attributed this to the structure provided by “the school, course, instructor, or research exercises” (p. 139). The high-point in this research was the use of dance (since participants were dance/movement therapists) and combined artistic and textual analysis that offered a dynamic collaborative process of the exploration of data that “evolved as the analysis did” (p. 142). The educational use of this method exposed to and enabled her students to understand research and also created a space for them to express their feelings around it. Her use and choice of approach speaks to the fit between arts modalities and research participants, rather than health conditions, as was raised by Boydell et al. (2012a).

Hervey (2012) suggested employing video-recording and dance practitioners’ ability for repetition and memorization of movement as tools to ‘collect’ data. With regard to data analysis, Hervey described the potential rigor in embodied artistic inquiry by DMT practitioners, stating that the “intensive checking and rechecking through dialogue with the movement” (p.209) was similar to how other qualitative data analysis methodologies distilled the data to create meaning. She described how the creative process of making a dance “involves an examination and reexamination of each movement, each association, each image evoked, until a sequence of movements is discovered that most accurately and effectively communicates the intended meaning” (p.209). The representation and reporting of findings is ultimately subjective. Using a methodology to keep researcher biases in check may increase research credibility, dependability, and even confirmability. Hervey encouraged the creators and consumers of research to engage in dialogue “about what is being conveyed and how” (p.229).

Tantia (2013) planted a seed for others in the DMT field to consider a systematic embodied method for collecting data through interviews. In her phenomenological research,

Tantia developed a “body-focused interview” technique “to capture the subtle nuances of nonverbal communication that often accompanied participants’ descriptions of a complex phenomenon” (p.1). She used her body-psychotherapy skills in *Focusing*, an embodied psychotherapeutic process developed by Eugene Gendlin in the 1960s. Characterized by the act of attending to and engaging with the knowledge of the body, Tantia’s body-focused interviewing process helped clarify and elucidate nonverbal movements, which revealed information that words did not. Instead of interpreting the ambiguous metaphors of her interviewees, Tantia let her interviewees tell her what they meant by increasing her participants’ embodied awareness, or what Gendlin called the ‘felt sense’. By helping her interviewees ‘listen’ to their bodies, Tantia’s data revealed new facets of the conversation. She recommended that “This method may be best used to explore complex social issues, as well as emotional experiences” (p.16). For dance/movement therapists, further development of such use of the body combined with a systematic method of analysis that incorporates dance can contribute to articulating the benefits of this type of approach.

What is missing in the DMT approaches are the emphasis on how mirroring and trying on another person’s movement, can affect what one can know about them. Embodied research is focused on how one feels, rather than how the ‘other’ might feel. It appears that, while mirroring is essential in DMT practice, only drama therapy has explored the idea of trying on another person’s movement as a way to do research. What needs to be addressed is how these interviews and other narrative accounts are interpreted and represented.

Arts-Based Analysis of Interviews

According to Hunter, Lusardi, Zucker, Cynthia, and Chandler (2002), the incubation phase – where meaning is made – while central to the qualitative research process, is not

recognized in the literature and given due credit. Likening the incubation phase to “intellectual chaos” (p. 389), the authors and their five research subjects claimed that this non-linear and iterative meaning-making phase was where patterns emerged and conclusions were made: where the “magic” (p. 388) happened. For dance/movement therapists and other CAT practitioners, the incubation phase, in which chaos is transformed through an intuitive, creative process, is where something new can emerge.

Kvale (2007) proposed that the interpretive process begins during the interview as the interviewer engages and clarifies meaning with the interviewee. He argued that making meaning from transcripts is too late for new analysis. White and Drew (2011) proposed that the process that occurs in between conducting the interview and writing a transcript is where new insights can occur. Citing Schostak’s view of an interview as “a place where views may clash, deceive, seduce, enchant,” (as cited in White & Drew, 2011, p. 6) the authors raised the complexity of the interview process that is not simply a way to procure information, but negotiating and generating truths based on the reader as much as the researcher who edits and compiles the text. The balance on how much of the research participants’ voices are ‘theirs’ versus the researcher’s is a matter of credibility and dependability and the process should be transparent in the research.

Feminist psychologist Carol Gilligan (2003) and her colleagues developed the *listening guide* in which listening is used as a method to enhance the relationship between interviewer and interviewee and to tune into what was not explicitly said. Gilligan et al.’s seminal work is based on the psychoanalytic assumption that each individual has a distinct ‘voice’ with multiple layers. Rather than as an interpretive framework, this four step relational method was systematized over the course of 10 years for researchers to be able to access the “collectivity of different voices that compose the voice of any given person—its range, its harmonies and dissonances, its distinctive

tonality, key signatures, pitches, and rhythm,” which “is always embodied, in culture, and in relationship with oneself and with others” (p.157). Pauses, pitch and tone of voice can afford the researcher to grasp affective intonations, reflecting “a shift in meaning or change in voice, the ending of a cadence or the start of a new breath” (p.162). Focusing on the non-verbal aspects of this approach could prove useful and applicable for creative arts therapists. One limitation is that this method is based on a psychoanalytic foundation, whose biases of having an individualized ‘self’ with an independent ‘I’ can limit its use with those whose primary language is not English or who may come from a culture whose ‘self’ is collective. With such individuals, creating clear “I” –poems, or differentiating the contrapuntal ‘voices’ may not be as straightforward. Another aspect that could be considered is making the researcher’s role more transparent in the way in which the conversation ends up being analyzed. The timing of the analysis should also be judicious.

Doucet and Mauthner (2008) questioned how interview subjects can come to be ‘known’ and provided an alternate version of Gilligan et al.’s (2003) listening guide method for analyzing interviews. From a feminist perspective, they infused it with a reflexive component, stating that one’s subjectivity needed to be accounted for in knowing someone. Despite the multi-layered approach, while “there may well be something ‘beneath’ or ‘behind’ or outside narrative; nevertheless, all we can know is what is narrated by subjects, as well as our interpretation of their stories within the wider web of social and structural relations from which narrated subjects speak” (p. 404). It is difficult to know how the method has held up, as the literature search did not turn up much with regard to how this was actually implemented. Nevertheless, it proves to be one of few arts-based interpretive methods that can perhaps be molded and sculpted into new use.

Data Analysis Framework: Laban Movement Analysis

The solutions to reframing dance knowledge, of discerning what is salient and determining how meaning is created while recognizing its axiology (their ethical and aesthetic value) may be contingent on focusing on the bodily, sensory *doing*. The link between the semiotic planes of ‘interpretation’ and ‘expression’ of a complex multimodal system such as a dance can benefit from a descriptive framework that can connect “the symbolic reference of language to the operation of art” (McDonald, 2013, p.330). One such framework that can be used for dance research is the aforementioned LMA. Rather than give explanation of what a specific movement signifies, LMA offers processual information in the form of data (Woodruff, 1988). Depending on the lens of the practitioner who uses LMA – whether an ethnologist, physical therapist, or dance/movement therapist – their focus and interest would determine how meaning is created. If the observer was a dancer or actor, the tendency would likely be to look for values and meanings in movement.

LMA originated from observing Eastern European movement patterns and the theories of Rudolph Laban, which were then further developed by many of his pupils such as nonverbal behavior analyst, Warren Lamb, and psychoanalyst, Judith Kestenberg, among others. Laban published a movement notation system in 1928 called *Kinetographie Laban*, based on the study of kinetics. Since then, the system has been revised through the 1990s and is currently known as *Labanotation*. It was unanimously acknowledged at the Congress for Dance Notation and Folk Dance Research in Dresden in 1957. Known choreographers such as George Balanchine have used this system to notate their ballets; and folklore societies have recorded folk dances for research and dissemination (Knust, 1959). Prior to this, a comparable system to music notation

that did not use arbitrary symbols and vocabularies, or required having previous knowledge of any particular style of dance (such as ballet) was unknown (Hutchinson, 1954).

Laban's contribution was his use of "vertical, symmetrical staff, read from the bottom up and clearly picturing, for the reader facing the score, right and left, front and back" (Hutchinson, 1954, p. 3). The duration of a movement can also be marked by the length of the symbol in the staff (see Figure 1). In addition to its use to record and reconstruct choreography including "spatial design, timing and dynamics" (p.6), Labanotation could be used to teach the segmented components of movement that are not immediately apparent when observing, and "completely ambiguous" (p. 6) in writing. Hence, much like music notation that uses a musical staff, the richness of the art form is made visible and understood, allowing the viewer to notice what they are seeing in deeper ways that may otherwise be hidden.

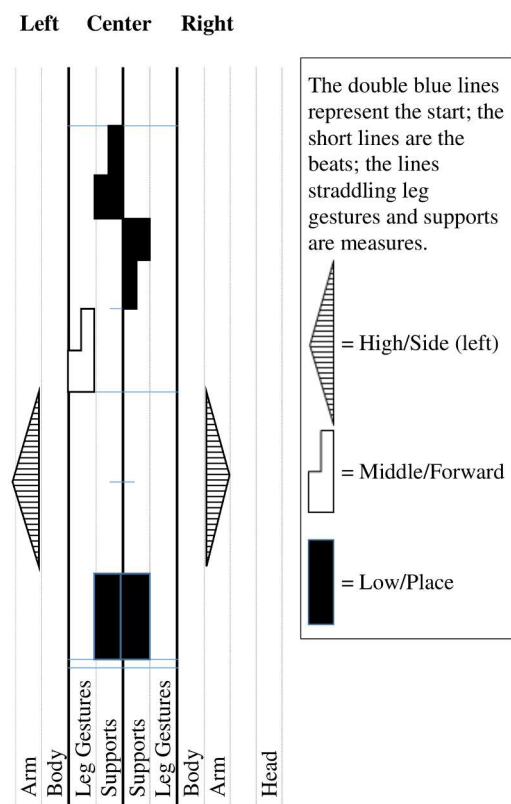


Figure 1. Labanotation: vertical staff and an example of movement notation.

In order to be credentialed as a Certified Movement Analyst (CMA), one goes through extensive training in human movement observation based in the frameworks of LMA and Bartenieff Fundamentals (BF). Building on Laban's theories, BF was developed by Irmgard Bartenieff, who was a physical therapist as well as a dancer, dance therapist, student of Laban, and cross-cultural scholar on non-verbal behavior. Bartenieff developed exercises for her patients with polio and WWII veterans to achieve efficiency of movement and expression based on LMA's Body concept of *Total Body Connectivity*, that are associated with developmental and neurological movement patterns (Hackney, 2003). Known as the Basic Six, her movement sequences are adapted to aid in remembering and physically executing movement for athletes with limited mobility, as well as for the improvement of movement skills and cognitive functioning.

The certification program is offered through Columbia College Chicago, Lesley University in Cambridge, MA, and New York City's Laban/Bartenieff Institute of Movement Studies, LIMS® in northeastern US, Belgium, Scotland, Israel and China. The training consists of four modules and takes one full year of four half days per week, or can be divided up into four separate intensives, each lasting 16 days, with an additional two days of final presentations. In some teaching formats, these modules are broken up into several weekends. Module I: *Immersion*, is the equivalent of two graduate courses – Movement Observation and Assessment I & II – taught in the DMT master's program at Lesley University through the lens of a dance/movement therapist. Module I covers the foundation of LMA and Bartenieff Fundamentals with two main goals: to be aware of personal patterns and increase one's movement repertoire in relation to others; and to be able to apply LMA as “a way to assess and contribute to the diagnostic process” (N. Beardall, personal communication, July 9, 2015).

Module II: *Concentration* continues to build on Module I, focusing on the history and application of LMA. Module III: *Depth* explores the use of Space Harmony using the Icosahedron, which is a “Crystalline Form that comes closest to the Kinesphere’s rounded format, adapting itself better to human body proportions” (Fernandes, 2014, p. 228); and what is known as Laban's A and B spatial scales with focus on Phrasing and Shape Flow Support during Transverse movement. Module IV cumulates in a thesis-like final project presentation (“Program and workshops,” 2009).

LMA offers a distinct language based on five categories: *Body*, *Effort*, *Shape*, *Space* and *Phrasing* (see Figure 2). Each category allows movement to be approached from multiple levels: as intentional, patterned, and involving a dynamic and contextual process of change. The Body category addresses connectivity between body parts, as well as how the body is organized in relation to the environment. Space is concerned with movement in connection to the environment, such as direction and pulls. Shape is attuned to form and the process of forming in space. Effort describes the dynamics and qualities of movement. And Phrasing “indicates the transitions that take place between movements” (Tanenbaum, Nixon, & El-Nasr, 2014, p.24).

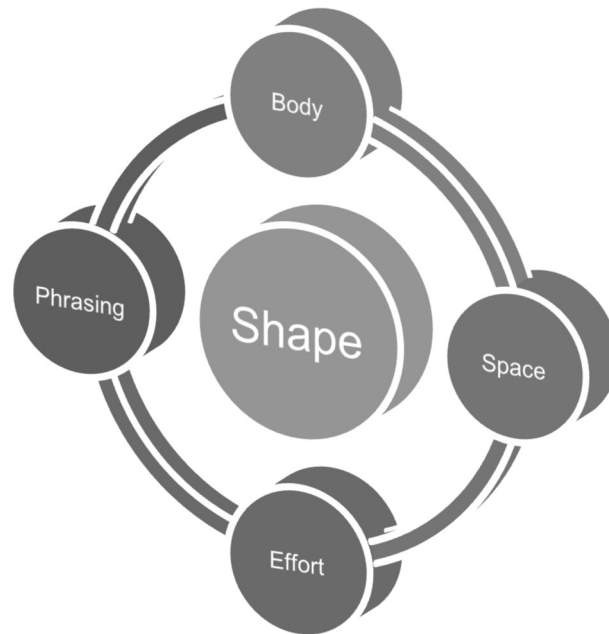


Figure 2. Five LMA categories.

The idea of *Full Body Engagement* is central to the Body category for full body movement: the expansion and contraction of *Breath*; *Core-Distal*, pertaining to the connection between the torso – head to tail – and the arms and legs; *Head-Tail*, spinal connectivity; *Upper-Lower*, integration between the lower and the upper body; *Body-Half*, divided along the sagittal plane; and a *Cross-Lateral* pattern attributing “diagonal connections from one arm through to the opposite leg” (Neff, 2014, p. 131).

The Effort category entails four *motion factors*: *flow*, *weight*, *time* and *space*, which are on a continuum (see Figure 3). The inner attitude of how kinetic energy is used and how the body expresses itself is qualitatively communicated.

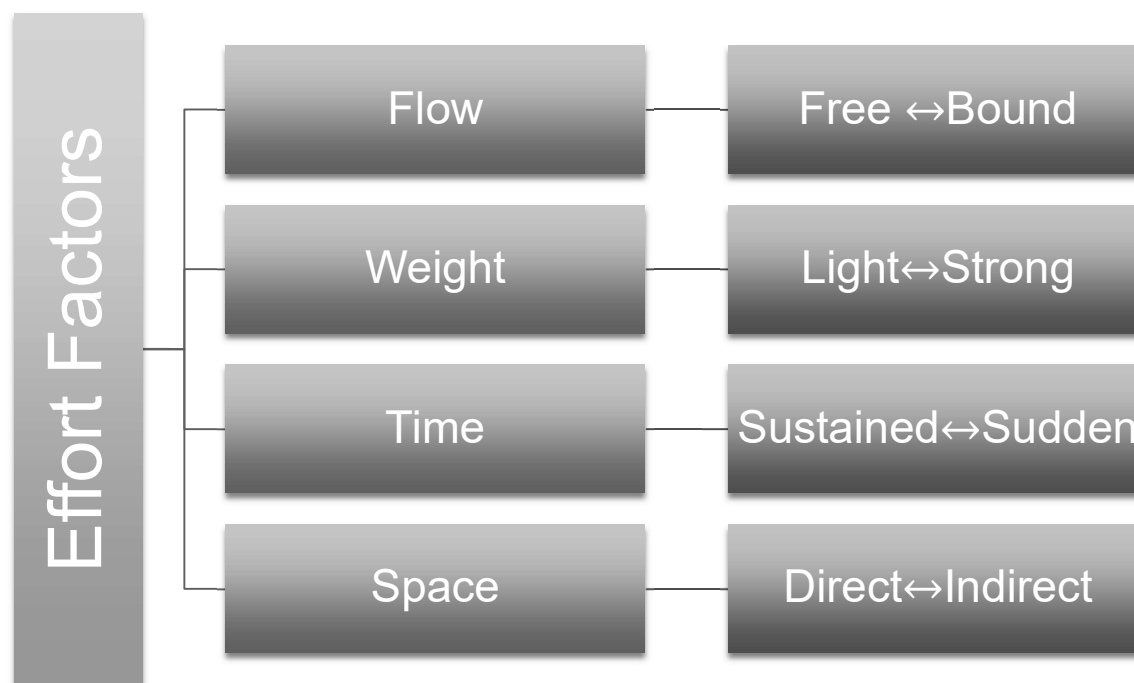


Figure 3. Four effort factors. This figure outlines the polar qualities for each effort factor.

LMA and other movement frameworks share the discoveries of embodied cognitive research that connects sensory perception to the awareness and conceptualization of meanings and ideas (Hackney, 2003). LMA's use in humanizing characters in the gaming world (Tanenbaum, El-Nasr, & Nixon, 2014) speaks to its pertinence in interpersonal relationship analysis in artificial intelligence and computer generated imagery. While more research is needed to attest to its cross-cultural use, LMA's applicability for addressing developmental movement patterns and treatment issues in a wide range of populations (Kestenberg-Amighi, Loman, Lewis, & Sossin, 1999) has been demonstrated in a variety of contexts.

In his phenomenological heuristic study, music therapist Viega (2010) worked with a dance/movement therapist using LMA to explore his affective-intuitive relationship to a music program called "Mostly Bach," which is used in the *Bonny Method of Guided Imagery and Music*. The study focused on *body listening* – "an experiential method of music analysis" that

was originally proposed by Helen Bonny, in which “the listener moves freely to the music while in an altered state of consciousness, and then reflects on his or her own experience” (p. 24).

Focusing on the eight basic Effort actions of LMA provided Viega with a language to describe and become aware of his movements.

Conclusion

Recent interdisciplinary collaborations between arts and science disciplines show an increased interest in ABR. These studies offer a number of benefits. First, arts tend to reach a diverse range of people who are not the usual academic audience. Art exhibits, music, dance and other theater performances become ways to offer opportunities for dialogues reflexively with various professional and client communities. Second, arts’ unique nature allows for multiple renderings of the same work through engagement. This second aspect of the arts has the potential to offer alternative forms of knowing. With regard to dance and DMT, verbal interview data, the clarification of what each of these modes of communication can communicate need to be discerned. One limitation of verbal analysis may be that it inadvertently reduces and sanitizes the humanity of the person as a rich, layered entity. Focusing too much on the words can detract from grasping the depth of a person’s voice (Gilligan et al., 2003) or negate the researcher’s role and influence in the conversation. When engaging in, and later, re-listening to an audio-recording of an interview, the practitioner-researcher pays attention only to certain elements of the conversation, much like what happens between a creative arts therapist with her client. Such experiential and social dimensions need to be brought to the forefront as all phenomenological experience is relational and interpretive.

All too often, the usefulness of dance and other embodied arts in inquiry remain obscured. The types of knowledge worth emphasizing become highlighted when revealing the

underlying paradigms – ontology, epistemology and methodology – in arts-therapy research. While ethical considerations are beginning to be addressed, much of the existing literature is ambiguous with regard to analytic structure and rigor of such studies (Hervey, 2012; Sajjani, 2012b).

Some of the embodied research literature in cognitive and neuro-sciences contribute significant knowledge for substantiating DMT and CAT theories. For instance, validation of the long-standing DMT practitioners' conjecture that the body is not only inseparable, but vital to cognitive processes (Borghi, Capirci, Gianfreda, & Volterra, 2014) offers a welcome shift in body discourse. Since a hierarchy remains embedded in many of these research paradigms that place the body as adjunctive or secondary to research knowledge, dance/movement and other CAT researchers need to continue to underscore their phenomenological view of the body as a living, subjective “agent and in action” (Meekums, 2006, p.168) and delve into the depths and “nuances of our own aesthetic media” through the aesthetic paradigm (Johnson, 2009, p.119). Claiming and formalizing the unique methodologies by means of which artists can know and communicate is crucial to diversifying the dominant evidence-based narrative. Or, as Viega and Forinash (2014) have pointed out, other fields may end up defining these methodologies for us.

CHAPTER 3

Method

The objective of this research was to develop a model for an embodied-artistic approach to analyzing interview data that could contribute to an enhanced narrative account and/or offer an alternate perspective. The methodological challenge was twofold: exploring the phenomenological aspect of the experience of participants while simultaneously creating a disciplined approach. As the focus of this dissertation was on explicating the method, an evolving methodological framework called critical creativity methodology (Titchen & McCormack, 2010) was employed due to its concern with the body's agency and the development of transformational practices and research for both artists and social scientists. Critical reflection interplays with "expression through creative imagination and arts" (p. 532). A mixed, qualitative and arts-based design that included ethnographic and auto-ethnographic processes was implemented in three phases devised by the researcher: the *preparatory* phase, *induction* phase and *validation* phase.

In the preparatory phase, interviews were conducted with two sets of participants – Group A, with whom to induct the dance approach; and Group B, with whom to validate the approach. During this phase, the researcher's movement preferences were identified with a CMA as a way to 'bracket', not as a way to set aside biases, but to put forth "preunderstandings and exploiting them reflexively as a source of insight" (Finlay, 2009, p.13). In the induction phase, the framework for Gilligan et al.'s (2003) listening guide was employed as a starting point to approach the data, but then modified to emphasize and inform the relational aspect of embodied experience using DMT skills and LMA as tools. Throughout the research process, LMA was used to bracket as a way to "shift back and forth, focusing on personal assumptions and then

returning to looking at participants' experiences in a fresh way" (Finlay, 2009, p. 13). After sharing the video footage of the dances that were created along with the interview transcriptions, and receiving feedback from the Group A participants, the approach was revised. In the final validation phase, critical reflection was sought from Group B participants after applying the new model to the process of creating a dance as in the induction phase. This phase was meant to test the model for its trustworthiness, not for the truth value of the content, but of the methodology.

Participants/Co-Researchers

Due to this study's intent to examine the potential benefits of dance and DMT skills as tools for analysis, ethnographic and auto-ethnographic processes were inevitable. Hence, dance/movement therapists were chosen as participants/co-researchers ($N = 6$) and recruited via email. All registered and board-certified dance/movement therapists are trained in a combination of movement observation techniques, such as the Kestenberg Movement Profile (KMP), Bartenieff Fundamentals and LMA in their master's level programs. For the purpose of developing the methodological framework, having these criteria for the selection of participants was intended to bring forth subtle elements that could otherwise be missed by an untrained eye; and contribute to the process of discovery through their roles as co-researchers. Reflexive feedback was sought from Group A ($n = 3$) to refine the model, and Group B ($n = 3$) to test it. Their roles were perceived to switch from 'participant' during the interviews, to 'co-researcher' in providing critical feedback to the dances that were created.

Group A. The first subset – Group A – initially consisted of four practitioners who gave interviews on the use of DMT in a communal and/or ritual context. One participant dropped out due to scheduling conflicts. Hence, three dances were created and reviewed for this initial process. Purposive sampling was used to recruit the participants for an earlier pilot study. All

three were female and their ages ranged from 47-65 years old. One participant from Germany identified as Caucasian and the other two – one from the US and one from Canada – as mixed ethnicity/race. All three had over 20 years' experience using DMT in their practice, but only Participants 1 and 2 were board-certified. While Participant 3 identified professionally foremost as a dance/movement therapist, her background was in theology, holding a doctoral degree in ministry. She was trained in the Halprin Life-Art Process, and Popular Theatre, among other expressive therapies modalities. All three were published authors with respective interests and expertise in interfaith and intercultural practices, working with refugees, and displaced and indigenous populations from different parts of the world.

Group B. Snowball sampling was used to recruit the second subset of participants – Group B. All three were board-certified dance/movement therapists with 20 years of clinical experience whom this researcher had met through professional networking and various DMT and CAT conferences and/or gatherings. They each had contributed to the field of DMT as practitioners, administrators, authors, clinicians, lecturers and presenters. One identified as Japanese American, one as Japanese, and one as Caucasian. All three were female and middle aged, ranging in age from their early 40s to 50 years old.

Informed consent. Informed consent forms were emailed to Group A participants prior to the interviews (see Appendix A). Subsequently, oral consent was obtained and audio-recorded at the onset of each interview. For this current study, a request to participate in reviewing interview transcripts and a video-recording of the dance was emailed to each participant anew. The option was given not to partake in the research or to withdraw participation at any time. For Group B, informed consent was negotiated through a similar process (see Appendix B).

Preparatory Phase

Data Collection

Semi-structured interviews. Interviews were conducted with Group A and Group B participants to explore their phenomenological experiences of: (A) working with dance and other embodied arts in a communal ritual context; and (B) working as a professional dance/movement therapist. All three interviews with Group A participants were conducted over Skype and audio-recorded. These lasted 30-75 minutes and were later, verbally transcribed. The semi-structured interview questions can be viewed in Appendix C. For Group B, one interview was conducted via Skype and the other two were conducted over the phone. These interviews lasted 60-70 minutes and were also audio-recorded. Instead of immediately transcribing, these were transcribed after the creation of the dances. The semi-structured interview questions are presented in Appendix D.

Laban Movement Analysis

LMA. LMA was used, first, to identify this researcher's movement preference; and then later to analyze the Group A dances to assist in the explication of the dance approach during the induction phase. Of the five LMA categories, the Effort category, divided into four subcategories, is particularly practical and useful to apply in dance/movement, drama and other creative arts therapies that are performative, involving the body and movement.

Researcher's movement preferences. A CMA's movement analysis of this researcher's improvised dance offered a baseline with which to compare the subsequent three dances created for Group A's interview data. Figure 4 shows the researcher's Effort tendency for light weight, quick time, bound flow, and direct use of space. These terms connote the active, qualitative factors of movement rather than the quantitative value of weight in pounds or time velocity.

Flow effort expresses the “*How*” – continuity or progression of emotional involvement; weight effort is associated with “*What*” – presence and intention; space effort is concerned with “*Where*” one’s attention and focus is; and time effort denotes intuition and decision making: “*When*” to act or restrain. Furthermore, a combination of two of these effort factors occurring simultaneously connote what is called a *state*. *Effort Drives* are combined from three of these efforts; and *themes* are two opposing concepts that “constantly influence and transform each other in a dynamic represented by the Moebius strip” (Fernandes, 2014, p.270).

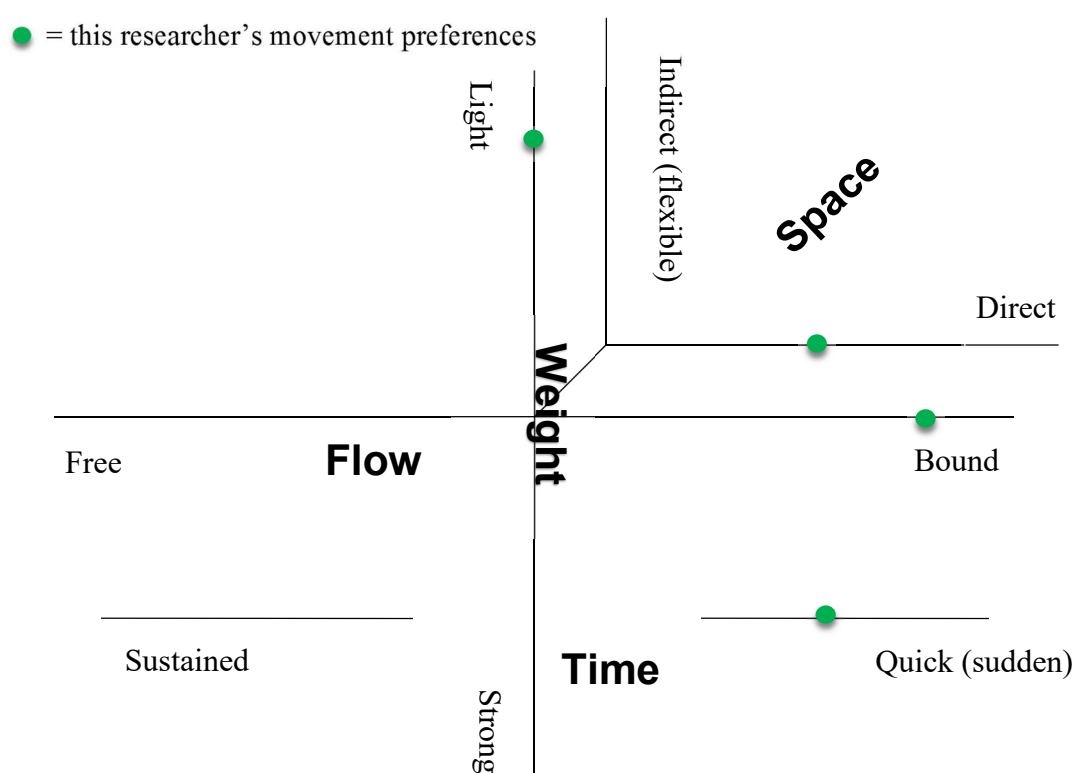


Figure 4. Four effort factors and their polar qualities for the researcher’s improvised dance.

Prominently observed was a combination of light weight and bound flow, which impressed a *dream* state connoting sensitivity, restraint and control. A theme of *exertion/recuperation*, which is a way to establish balance in the body, was also noted. Diagonal spatial pathways were preferred both in advancing and retreating with the use of three

dimensional carving movements and indulging, light weight efforts. Scattering gestures that generally suggest “openness, sharing and an external focus” (Neff, 2014, p. 130) were also observed.

Three movement signatures were identified when comparing the initial dance to the other three dances that were created based on the interviews: (a) initiation of movement through use of the limbs; (b) vertical jumps; and (c) a vertical postural stress. These elements were evident in all four dances, but were represented in varying textures and movement styles that reflected and demonstrated the intersubjective natures of the dances created for each interview. These were especially evident in Phrasing, which, in LMA, communicates how one prepares, initiates, exerts, sequences, and transitions in movement to convey meaning (Hackney, 2003).

Induction Phase

Procedure

Echoing Brown’s (2008) claim that the act of creating art is “both content (raw data) and process (analysis), in art-based research” (p.118), the process of improvising and creating a dance was simultaneously a way to analyze the interview data of this study. When creating a dance, the choreographer goes through a process of collecting sensory information, feelings, images, words, stories, in a manner unique to the individual. In creating a dance for the development of the method, the interviews served to elicit responses in the researcher. Triggered by the impulse to move, the movements built on it, enabled and structured by the music. Movements were “tried on,” and emotions were enacted. Movement phrases were then codified, but also ‘improvised’ when danced anew at different times. The length of a dance depended, among other, on the concision factor raised by Barone and Eisner (2012): by distilling the phenomenological data into a form that used a minimum amount of space, time and words. The

tools – DMT skills – that were used to create the dance became the systematized approach, which the researcher tentatively referred to as *embodied listening*. The steps of the procedure were as follows:

Step 1 – Spend time with the participant in virtual reality by listening to the audio-recordings of the interviews in the dance studio space in an *embodied* way.

Step 2 – Review the video footage of the embodied listening process. Look for patterns.

Step 3 – Identify and address procedural challenges and individual themes in movement.

Step 4 – Improvise and/or create a dance.

Step 5 – CMA analyzes the video footage of Group A dances.

Step 6 – Email interview transcripts and video footage of Group A dances to the respective participants/co-researchers.

Step 7 – Integrate the reflective feedback from the Group A participants/co-researchers.

Step 8 – Formalize a tentative model for dance approach to the analysis of interviews.

Tools: Dance/Movement Therapy Skills

DMT skills were used as the main tools for explicating the dance approach to analyzing interview data. These included: dance and movement techniques, verbal and non-verbal interpersonal communication skills, movement observation skills (LMA), and some musical sense.

Dance and movement techniques. In a DMT session, different styles of dance techniques and other body-based practices are drawn upon to create dances with the client. Similarly, for the interviews in this research several movement practices and dance techniques were applied. These included ballet and Hawkins technique; as well as elements from the practices of tai-chi and yoga, which originate with holistic mind-body-spirit philosophies that

encourage the energies of the body to flow efficiently. Other culturally embodied movements, such as gestures and postures were also utilized. While a variety of approaches were attempted with Group A, Hawkins technique was represented most in the Group B dances. The following is a brief background and description of Hawkins' dance technique, whose multi-disciplinary approach agrees with this researcher's expressive therapies background.

Hawkins dance technique. Hawkins emphasized movement that was supported by and originated from the pelvis and the spine (core) from which the arms and legs could move freely (Celichowska & Hawkins, 2000). Influenced by Eastern philosophies, particularly the concept of transience in Zen Buddhism, for Hawkins (1992), "The end of the journey in the study of Zen in the Art of Archery is to learn to permit the arrow to shoot itself" (p.94). This resonates with this researcher's Buddhist and Shinto heritage and family lineage of *sado* practitioners.

Similar to the philosophy of Japanese archery, *sado* or tea-ceremony is a highly prescribed and orchestrated interdisciplinary artistic discipline that requires practice. A salient feature of Japanese art forms such as *sado* is their emphasis on the mimetic transmission of knowledge from masters through repetition, usually without interruption, of an entire sequence. The first-person 'I'-ego is relinquished and the spirit of the art form is embodied in relationship to the 'guests'. Nothing new is created, as the emphasis of the art form is to be fully present and be responsive in the moment.

Chacian dance/movement therapy. Aside from the three-part structure (warm-up, theme development and closure) that created a container for this researcher to situate herself, dance improvisation was incorporated as a major tool in the process of dance creation. Chace developed and used mirroring, not only to convey warmth and increase kinesthetic awareness of the patients, but to accept what was offered and create something together. The spontaneous,

improvised movements of patients could then be exaggerated or deepened, becoming materials or tools from which to build and choreograph movement sequences. Chace (1964) put forth that, “As a rule, dance therapy sessions are held in groups. This means that numerous people are involved in a response to what is going on” (p.248). Her intent to humanize others as emotional beings who have something to offer to the creative process was an important understanding for listening to the interview recordings. The feedback that was solicited from the co-researchers was in this spirit of accepting what was presented in the interviews and creating something *together*.

Music. Music is generally chosen in a DMT session by gauging and reflecting the mood of the clients and milieu. It provides containment and a structure for the movement dynamics to develop. For this study, the music for each of the six dances was chosen carefully to reflect the pitch, tone, rhythm and dynamics of the conversation. The selection process began by sensing the mood and ambiance of the conversation while moving to the audio recording of an interview, and then playing a piece of music whose rhythm and tone sounded similar. This was then tested further by playing both the interview recording and music simultaneously while this researcher danced. The primary concerns for the aesthetically, culturally and semantically appropriate selection of music were: “What movement dynamic best captures the feel of this person through our interaction?” “Whose voice and/or identity is being expressed?” “What are the salient points and their associated feelings?” “What is the affective impression?” “What are the images or symbols that arise?”

Data Analysis: Embodied Listening

In Gilligan et al.’s (2003) original listening guide method, the first step concerns making the researcher’s assumptions explicit while ascertaining the plot. To begin, the authors

recommended reading the transcript a minimum of four times, paying attention to different aspects with each listening. To accomplish this in an embodied way, this researcher replicated Rossiter et al.'s (2008) procedure of treating the interviews as if they were monologues, listening and simultaneously moving to the audio-recordings multiple times in the dance studio. This modification was made to focus on sensory input from the start. Attention was given to paralanguage such as breath and intonation.

An important aspect of this first step was introspection. According to Sheets-Johnstone (2011), introspection in a phenomenological methodology is a “sense-making” practice that “discloses ‘inner’ (Husserl) or intersubjective experiences” (p.180) and can potentially ground scientific knowledge. In between moving, this researcher’s visceral and emotional responses, as well as assumptions and associations, were noted in a journal. Considerations were given to cultural influences that grabbed this researcher’s attention:

1. What words or concepts stand out?
2. What is prevalent that was not mentioned in the questions?
3. What is out of the ordinary?

The second step of the listening guide method is to construct “I poems” by tracking the use of the first-person pronoun in the interviewee’s narrative (Gilligan et al, 2003). The intent for these poems is for the interviewer to become immersed in the narrator’s experience and get a feel of how the interviewees spoke about themselves. To listen in an embodied way, focus was brought to the dynamics and underlying tone of the interview rather than on the first-person ‘I’. There were two reasons for this modification. The first one was practical – one of the interviewee’s language did not employ a clear analogue of a first person pronoun. The second

was that these dynamics could be enacted through dance and an emphatic “I” was expected to arise through the dance.

The third step in the listening guide was to look for contrapuntal “you” voices. For the reasons mentioned above, this step was also altered to address a bodily sense of resonance and dissonance instead. The final and fourth step in the listening guide method is to do a verbal analysis. For the embodied approach, the experiences thus far were synthesized to create a dance.

The final piece of this embodied listening analysis involved participants’ reflections, which was not a part of the listening guide method. The participants were invited to view the dance video footage and provide feedback. This step offered the opportunity to discover variables that might influence the interpretation of a dance-as-representation. Although this email request was initially left open-ended, two of the participants asked for specific guidelines. The researcher asked one of the participants whether the dance reflected the interview conversation by considering: (a) thoughts, feelings, visceral responses to the dance; (b) the structure, music, tone, etc. of the dance; and (c) anything that could be done differently. The same questions that this study attempted to answer were posed to the other two participants in Group A:

1. What are the benefits and limitations of dance as an approach to analysis?
2. What can be known about interviews and other verbal, textual data through a dance?
3. How does one represent and communicate meaning interpreted through a dance?

Data Analysis: Creating a Dance

Step 4 of the induction phase was creating a dance. Four types of movement were distinguished as procedurally relevant: gestural, literal-descriptive, interpretive and expressive. The gestural and descriptive movements, while culturally bound, could infer the feeling of a word, sentence, or phrase. The literal movements depicted concrete words and abstract concepts

(e.g. “prayer,” “symbols,” “psychology”), as well as literal verbal expressions (e.g. “backwards and forwards”). The interpretive movements were embodied ways of putting the researcher’s subjective understanding of content into tangible form. The expressive movements were where aesthetic considerations were discerned based on the tone, pitch, and other non-verbal elements. Intention, justification, and feelings of purpose that would not be ‘written’ (or spoken, for that matter) in text were expressed improvisationally through dance aesthetics and technique. Together, they formed an expressive dance rendering of the interviews.

Postural-Gestural. According to Tanenbaum, Seif El-Nasr, and Nixon (2014), “Posture is the spinal support of the whole body configuration. It is how a person carries him/herself through life. Gesture is how we express small units of meaning, analogous to words, phrases, and sentences” (p. 188). Figures 5 and 6 are examples of this researcher’s spontaneous gestural movements that tuned into the emotional component of what Participant 1’s client had said in a conversation about the use of prayer and its ‘appropriateness’: “Are you serious? Do you think we care?” These gestures are the movement versions of making visible what Gilligan et al. (2003) referred to as the contrapuntal voice of the interviewee: her client. In the conversation, Participant 1 expanded that she would not define prayer and let the client lead, but *do it* [move] together. In the process of creating the dance the gesture of “prayer” was this researcher’s, but the spirit of the movement transcended both culture and voices.



Figure 5. Gestural: “Are you serious? Do you think we care?”



Figure 6. Gestural: “I would use prayer.”

Literal-Descriptive. Figures 7 and 8 represent descriptive movements of a literal phrase. The examples shown here are “inner and outer” – bringing the arms and hands inward, closer to the body to connote ‘inner’ and opening the hand away from the core of the body out into the space to represent ‘outer’. A combination of ballet and modern dance technique are visible in these descriptive movements. Participant 3 stated that the “Indigenous function of ceremony is to bring you back in balance and connection with all your relatives, which include the plants and the animals, nations and skies and the earth.” The researcher embodied this idea of “balance” through movements that literally required centering and balancing. This movement also became interpretive in addressing the undertone of this concept, which was “deep focus” (see Figure 10).



Figure 7. Literal/descriptive: “Inner and outer...”



Figure 8. Literal/descriptive: “Reaching back”

Interpretive-Embodied. As Participant 2 spoke of “how certain movement...is connected to concept building,” this researcher made a gathering and then sliding movement forward while opening both arms landing in a lunge position (see Figure 9). The movement was interpretive of her statement about there being “a lot of research...not only Laban but Kestenberg has hypothesized about these meanings, but also a lot of psychologists and phenomenologists have been writing about how movement is connected to” thought. The opening of the arms into the space reflected B’s sharing of this knowledge and her acknowledgment of other scholars in various disciplines and fields, blending concepts of embodiment interdisciplinarily.

As with literal-descriptive movements, interpretive movements also employ dance technique as seen in the turn-out of the foot and with the bending of the knees (*plié*) (observed in Figure 9); and arabesque (seen in Figure 10), extending one leg behind while balancing on the

other. The fist made with the hands are not part of classical ballet technique, but a gesture that was integrated to convey a feeling of determination and focus.



Figure 9. Interpretive: “Disseminating embodied knowledge.”



Figure 10. Interpretive: “Deep Focus”

Expressive-Artistic. Since dance expression is relational, the artistic movement comprised a reflective component in which feedback was solicited from the participants/co-researchers. Rather than portraying the specifics of the interview content, the expressive movements attempted to convey the feeling that was sensed in the non-verbal aspects of the conversation.

Data Analysis

For the induction phase, in addition to the procedural and analytical tentative embodied listening approach mentioned earlier, the interview data for Group A were analyzed using LMA, verbal thematic analysis, and comparative analysis.

Laban movement analysis. LMA was used to compare the three dances from Group A based on descriptive qualitative observations made by a CMA. These individual descriptions were then summarized by this researcher to look for unique characteristics, and similarities and differences between the dances.

Verbal thematic analysis. Unused interview data from the pilot study had been tentatively analyzed thematically based on four categories. As Kvale (2007) pointed out, the language used to gather the data already determines how data may be analyzed. Hence, it can be assumed that the semi-structured questions compiled prior to the interviews (i.e. the process of collecting data) were already verbally analyzed to an extent. These were reviewed and summarized to compare findings with the embodied listening approach.

Comparative analysis. The verbal and embodied analyses of responses from Group A were compared to determine differences and similarities in discoveries. No comparisons were made for Group B, as the intent was to track findings purely from the dance.

Validation Phase

After listening to and reading the written feedback from Group A participants in the induction phase, two small changes were made. To avoid the inherent analysis embedded in the verbal transcript and to discern what can be discovered in the process of creating a dance, in the new approach: (a) the dance was created after the interview but before its (verbal) transcription and any exposure to textual data; and (b) the raw transcript data was not sent to the participants upon sharing the video footage. Instead of relying on the transcription, the participants/co-researchers were instructed to respond to the dance through their embodied knowledge and sensory memories of the interview. This request was accompanied by a description of the themes

that emerged and explanations for the choice of music for their dances. The dance footage combined with these short statements elicited further introspection on the part of the participants.

Procedure

In the validation phase, steps 1-4 from the induction phase were applied using the developed dance approach, then subsequently tested with dance/movement therapists from Group B with a modified step 6 as described above.

Data Analysis

For the validation phase, the Group B interview data were analyzed using only the embodied-artistic approach prior to transcription to preclude the influence of verbal language.

CHAPTER 4

Results

The results are divided into two sections. The induction phase tracks the incremental revisions that led to finalizing the embodied-artistic prototype. The results of the induction phase first describe how each Group A participant's dance was constructed from her narrative. As each dance was being created, themes specific to each interview were also identified. LMA was then applied to make meaning. Subsequently, the verbal analysis from the pilot study was revisited and compared with the findings from the embodied-artistic approach. The group themes in the verbal analysis overlapped with individual themes identified in the embodied dance approach to analysis. The second section presents findings from the validation phase: of testing the prototype of the approach with Group B participants.

Induction Phase

The tentative dance approach was refined as this researcher addressed challenges that arose at different steps of the procedure in creating a dance for each Group A interview. The main discovery that was made about the approach is that the embodied listening process inadvertently brought out the themes of the interviews themselves. For instance, the first dance represents the themes of negotiating *power*, *ethics*, *aesthetics*, and *respect*. These themes were both procedural challenges (e.g. *How does one negotiate the power dynamic between this researcher and the participant in the dance?*) and themes from within the interview with Participant 1. The second dance also reflected both the interpersonal interaction and content on a continuum of a theme of *uncertainty* and *caring*. The third dance grappled with the tension between *curiosity* and *skepticism* that the researcher experienced in the attitude of the participant, as well as her *authority* related to the issues that were raised in the conversation. The video

footage (that can be viewed in the supplemental files of ProQuest and Scholarship @ Lesley databases) offers representative samples from each of the dances created as part of the induction phase, which is entitled “Induction Phase: Group A Dances.”

Individual Data Themes based on Procedural Challenges

The following section offers descriptions of the procedural challenges and respective themes that arose through the process of creating dances. Participants’ responses to their respective dance video footage are included in these analyses.

Interview and dance #1 with. The first interview was conducted with Participant 1 with whom this researcher had a previous, hierarchical professional relationship.

Power dynamics. Four power dynamics dualities were immediately brought to the fore upon stepping into the studio: researcher and participant; Participant 1’s role as a dance/movement therapist and the medical and neuroscience community; Participant 1’s minority, female author identity and academia; and Participant 1’s role as therapist and her clients. For instance, Participant 1 garnered much respect within the medical, trauma community through her work, which provided a strong backbone for her credibility within the DMT community. This underscored the internalized oppression carried by dance/movement therapists whose identities are perceived as inferior to medical doctors and neuroscientists. How to render these power differentials in a descriptive, interpretive and/or expressive manner needed to be negotiated.

Ethics. The embodied listening of contrapuntal voices highlighted Participant 1’s ethics. Upon her attempt “to explain about psychology” to one of her clients, she was told: “Do you think we care? I would appreciate if you brought more to work in the capacity of spirit. Isn’t it your job to do what helps us?” Participant 1 went on to say, “If someone identified prayer [to be

helpful], why wouldn't you?" The important point was not defining "what prayer was," but to engage in this embodied activity together. She added, "Those aren't things I ever talked about because a lot of my colleagues would throw me out the door." Ironically, Participant 1 underplayed certain aspects of her work due to the perceived hierarchy of knowledge, which is another representation of a power struggle.

Clarification of terms. During the interview, a slight discomfort was noted, but not addressed. Later in the studio while listening to the interview, this discomfort was felt again and explored further in movement. A discrepancy between this researcher's and Participant 1's use of the term 'spiritual' seemed to be at the root. Participant 1's reference to spirituality as "part of the definition of dance/movement therapy" did not sit well with this researcher. The explicit statement about spirituality stirred up cognitive dissonance. In Japan, spirituality is a notion that is embedded in daily practice rather than talked about. Consequently, the negative connotation of spirituality in a North American academic context came to light. Even though ritual practices are prevalent in many therapeutic modalities, they remain tacit due to its pathological (e.g. 'ritual behavior' in cognitive behavioral therapies) implication. A telling moment was when Participant 1 said, "I definitely came out a long time ago." Her need to hide what was helping her clients from her colleagues portrayed the professional climate, and also exposed how this researcher had given into this notion. Here again, a power struggle was apparent.

Aesthetics. In moving the power dynamics between the researcher and participant, Participant 1's position as the expert was counterbalanced with this researcher's power to present the data in a particular way. The ethical consideration of representing a culturally specific spiritual practice that was foreign to this researcher warranted a process of imagining: building images through associations and also enacting what it might be like to be inducted in or facilitate

a ritual from another culture. The dance needed to be symbolic of the essence of her experiences, which seemed to center around Participant 1's passion and ethics. In the movement expression, this researcher sought to convey respect towards Participant 1, while simultaneously honoring the heritage and traditions of the ritual practices which she had identified.

To capture the essence of the kind of spirituality that Participant 1 was referring to, this researcher was faced with several questions: How does one express spirituality? What might that look like symbolically in movement? Cultural considerations were also necessary. While this researcher was unfamiliar with the types of dances or practices that Participant 1 referred to, movement qualities that are earthy and grounded, as opposed to ethereal and ephemeral, could be rendered. Her excitable and passionate manner of engaging and speech patterns (e.g. contrasting quick and more deliberate speech with lots of fillers for space “um...”) could also be represented through movement and music entitled “*I sat duolmma mu* (You cannot hold me down anymore)” by Mari Böine (1990). This process clarified the goal not to replicate, but to attempt to render the participant's passion of her DMT work (see Figure 11). In her feedback, Participant 1 referred to both of these, stating: “Passion – most direct in observation.” “Exploration. Sometimes bold, sometimes cautious, maybe respectful is a better word?”



Figure 11. Expressive: “Passion.”

Interview and dance #2. The second interview was with Participant 2, a known researcher and author in the field. Of the six interviews, this interview lasted the shortest amount of time (25 minutes). Having had no prior contact, the dynamics felt tentative, particularly in the beginning. The themes of *uncertainty* and a process of *building connection* were identified.

Uncertainty-Caring. While the text based analysis referred only to the uncertainty around how to approach and articulate the questions to Participant 2, in the dance, the caring attitude towards the topic being discussed and the researcher's concern for her expertise on the topic was acutely felt. She would refer to her colleagues in medical anthropology, stating that "they would probably be much betterum, [internet connection crackling] experts on ritual than I am..." The interpretive movement, of tentatively taking the next step, reflected this hesitancy (see Figure 12).



Figure 12. Interpretive: "Tentatively taking the next step."

What this researcher could attune to was the melodic pitch of Participant 2's voice and even and caring tone. The crisp pauses resembled the Japanese *aizuchi*, literally translated as "alternate hammering" that is the "synchronized head nodding or back-channel paralinguistic cues of Japanese conversational pairs" (Ramsey, 1983, p.156). The pauses did not drag, and there were no fillers: her responses were clear-cut. "The Tree of Love," sung by a Japanese artist

Tokiko Kato, was chosen with these rhythmic and phrasing speech elements in mind. Modern ballet was chosen for this dance for its formal structure and ‘clinical’ association. Both the song and movement were based on the image of growing a tree – finding common ground, taking root and branching out in a nurturing way (see Figure 13). The ‘love’ that was expressed was not the syrupy kind, but of a caring, yet dignified kind. Participant 2 reflected that, while the dance felt “a bit distant” and the connection between the conversation and dance was not entirely clear for her, “the music was very beautiful. Your movement too.”



Figure 13. Interpretive: “Branching out.”

Interview and dance #3. Participant 3 was introduced to this researcher through a professor. In creating a dance, a similar challenge around rendering a traditional, spiritual practice arose that was pertinent in the conversation with Participant 1. The dance was approached differently due to difference in relational dynamics.

Curiosity-Skepticism. Participant 3 asked many questions around the research topic. Her skepticism and sensitivity to ethnocentric views were sensed around the use of some of the terms. For example, she stated: “I think trauma, since it became a buzz word, and now resiliency, that’s just human nature... we become experts and that’s where the money is.” She was intent on separating ‘ritual’ from a transformational ‘ceremony’. Such specificity forced this researcher to

take extra care in choosing the style of dance. Steps that resembled Japanese folk dancing and music – two versions of traditional Japanese *taiko* (drum) music, both performed by Japanese women – were selected. Throughout the music there was *kakegoe*. These are repeated sound calls used in Shinto and daily rituals to synchronize rhythms of speech and thought to increase ardor, enthusiasm and collective solidarity. This reflected the collective nature of a ceremony, as well as some of the back and forth of the interview conversation. The choice of music and dance form also grounded this researcher’s perspective in her heritage, rather than attempting to emulate the culture that Participant 3 was describing.

Authority. The pace of the conversation felt deliberate and slower than other conversations. There were relatively long silences without fillers. Participant 3 would stay on one question and try to parse it: “I don’t think that’s the right question but I don’t know what the right question is...” Turning slowly on the body’s vertical axis reflected the image of churning an idea, with curiosity and skepticism (see Figure 14). Correspondingly, the CMA observed a “[s]trong base” with the “theme of weight shifting while “[s]taying on a grounded center” rather than engaging in “diagonal movements that would bring the body into suspension off of center.” These movements also can metaphorically reflect the notion of “coming back into center” (see Figures 15 & 16) – a phrase that Participant 3 repeated.



Figure 14. Interpretive: “Churning an idea.”



Figure 15. Literal/descriptive: “Coming back into balance.”



Figure 16. Expressive: “Coming back into balance.”

Table 1 summarizes the individual data themes and their related procedural challenges.

Table 1

Individual Data Themes and Procedural Challenges for Group A

Group A	Relational Issues	Procedural Challenges
Interview and dance #1	Power struggles and related ethics Resonance and dissonance regarding the use of terms	Aesthetics (<i>Step 4</i> : prior to creating the dance) - To ethically represent traditions and other unfamiliar content in a respectful manner
Interview and dance #2	Uncertainty-Caring - The participant questioning her usefulness for the topic, recommending other ‘experts’ - The researcher questioning her role in taking up time from the participant who was seemingly uncomfortable	Passion Aesthetics (<i>Step 6</i> : participant feedback) - Differing responses to the dance (flow) between researcher and participant
Interview and dance #3	Curiosity-Skepticism - Understanding of terms and practices - Techniques and representation Authority	Aesthetics (<i>Step 6</i> : participant feedback) - The participant’s ambivalence with regard to the use of modern dance as expression - Perceptual differences of relevant data themes between researcher and participant

Use of Four LMA Efforts

Laban movement analyses of the three dances are summarized along with the metaphorical implications of each movement element in Figure 17. The continuum of the four LMA efforts – flow, weight, time and space – express the quality of each dance/movement. A

combination of these effort factors are referred to as *states*. In LMA, states indicate an inner-attitude (Longstaff, 2007). The three dances from Group A showed distinct states: *stable*, *remote* and *mobile*, that were different from this researcher’s baseline dream state. The stable state observed in Dance #1 emphasizes weight and space, which can convey steadfastness. The remote state noted in Dance #2 evokes “a pondering of abstract concepts” (Longstaff, 2007, para. 14). The combination of bound flow and use of direct space can convey a “distant” quality. And a “Mobile state as expressed with sustained time and bound flow,” impressed in Dance #3 depicted “control and precision” (V. Blanc, personal communication, June 17, 2015) as well as “continuous fluctuation, changeability and formlessness” (Longstaff, 2007, para. 14).

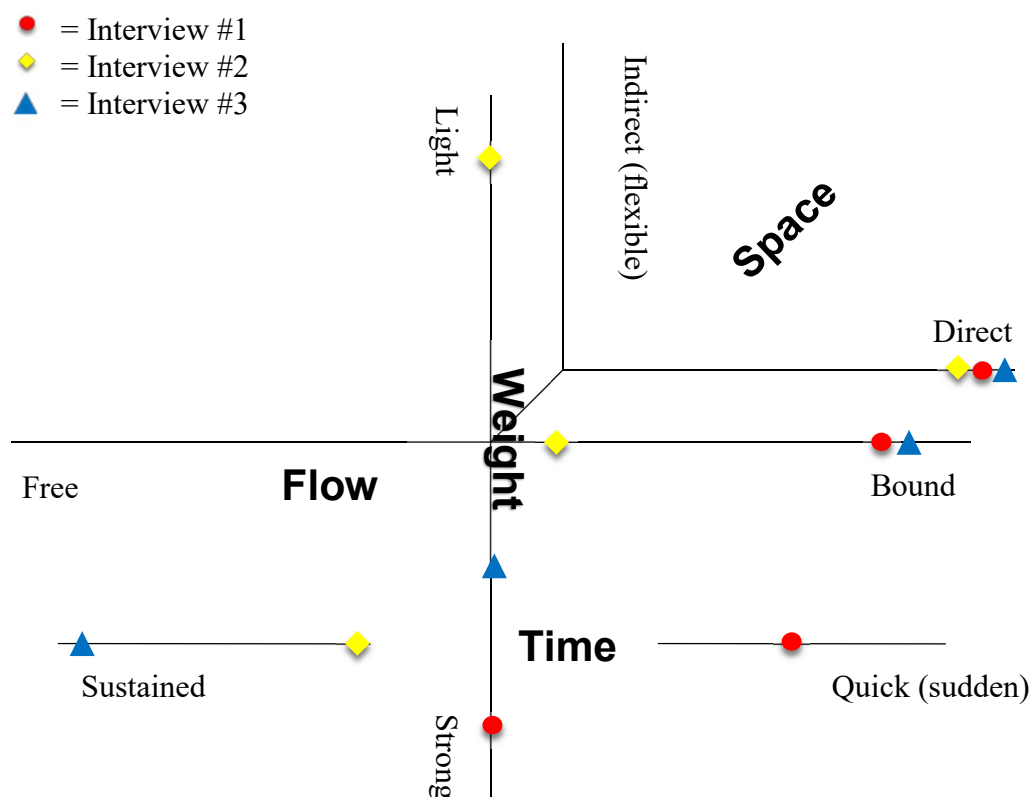


Figure 17. Effort factors in group A dances.

Directional movements, of bridging into the environment from self to other and inner to outer, were observed in all three dances. Such expression was indicative of the ways in which participants related to themselves and to others. Dance #1 showed many spreading movements while Dance #2 displayed “A fairly wide range of Shape expression with a preference towards arc-like directional movements with the arms and legs” (V. Blanc, personal communication, June 17, 2015). Carving movements were seen in both Dance #1 and Dance #2, significant of “interacting and accommodating with the surrounding environment creating a solid substance or volume in the space” (Longstaff, 2007, para. 17). These observations reflected both the interpersonal relationship building process between the participant and this researcher, and the ways these relationships were being enacted. For instance, the CMA observed that “outward expression was limited” in Dance #2. Both parties in the conversation were reserved.

In contrast, Dance #3 showed little shape flow, which can be perceived as the conversation being “less about me” (which is the LMA connotation) and more about connecting with “all your relatives, which include the plants and the animals, nations and skies and the earth” (which was expressed by Participant 3). The emphasis on ‘space’ that can connote a destination-oriented quality also reflected this other-oriented quality. The physical movement motif of ‘returning’ to a central place – the participant’s cosmology – was enacted both in the studio and metaphorically. Another significant feature in Dance #3 were the two drives: Spell Drive (thinking, feeling and sensing); and Vision Drive (combining feeling with thinking and intuiting). In LMA, Drives are a combination of three efforts. Spell Drive has a sense of timelessness, since time effort is missing; and Vision Drive concerns fact-finding, but may have no presence or substance, as weight effort is missing. The two Drives seemed relevant for

Participant 3 who responded that “intention and container” were the two most salient aspects of a ritual-ceremony.

The highest resonance, both emotionally and in content, was felt with Participant 1, both during the interview experience and upon reflexive dialogue pertaining to the dance. This resonance seemed to be reflected in the preferred efforts used in the dance. While the style of dance was distinctly contrastive, which was confirmed by the CMA who commented: “I was surprised because it was so different from yours” (V. Blanc, personal communication, June 17 2015), the movement efforts showed likeness in the use of space, flow and time. For Dance #3, the use of space and flow were alike; and for Dance #2, only the use of space was similar, despite the style of dance being similar with prominent use of ballet technique.

Use of Five LMA Categories

Table 2 shows the qualities of each of the three Group A dances according to the five LMA categories of Shape, Effort, Body, Space and Phrasing. Shape, which looks at the changing form of the body in relationship to others, describes basic shape form, the quality of shape, and modes of shape change; Effort, as described earlier, considers the four factors of flow, weight, time and space; the Body category shows posture, gesture and how the muscles are engaged; Space is concerned with how one interacts with the environment; and Phrasing “indicates the transitions that take place between movements” (Tanenbaum, Nixon, & El-Nasr, 2014, p.24). Individual LMA descriptions of the four dances are attached in Appendices E, F, G and H.

Table 2

Laban Movement Analysis of Group A Dances

Categories	Dance #1	Dance #2	Dance #3
Shape (the changing form of the body in relationship to others)			

Basic Shape Form	Pin (long and linear)	Pin	
Shape Quality (how one accommodates relationally to another)	Spreading	Gathering (“suggest the character is closed, coveting or tormented and internally focused” (Neff, 2014, p.130)	
Modes of Shape Change (how one interacts with their surroundings)	High Shape Flow (all about me)	High Shape Flow, but little outward expression	Very little Shape Flow
	Directional (shape change motivated to connect <i>to</i> the environment or other) Carving (shape change that molds <i>with</i> the environment.	Directional Carving	Directional (shape change motivated to connect <i>to</i> the environment or other)
Effort Factors Flow “How”: continuity or progression of emotional involvement	Bound flow (contained, controlled, clear, rigid boundaries) with moments of Free flow (indulgent, porous, open-hearted, can be out of control)	Bound flow with moments of Free flow	Bound flow
Weight “What”: presence, sensing and intention	Strong weight (power, standing one’s ground)	Mostly light Weight (buoyant, delicate)	Use of both Strong and Light Weight in relation to space affinities
Time Intuition and decision making: “When” to act or restrain	Quick Time (urgent, instantaneous, staccato, hurried, condenses the moment, spark-like, “now!”)	Sustained Time (drawing out the moment) and some Quick Time (urgent, instantaneous, spark-like)	Sustained Time (drawing out the moment) and some Quick Time (urgent, instantaneous, spark-like) towards the end
Space “Where”: one’s attention and focus is	Direct Space (channeled)	Direct Space (channeled)	Direct Space (channeled)
Effort Drives (Combination of three effort factors)	Vision Drive (combining feeling	None observed	Combination of Spell Drive (thinking, feeling and sensing);

	with thinking and intuiting)		and Vision Drive (combining feeling with thinking and intuiting))
Body (posture, gesture; body connectivity)	Body-Half (weighing two sides of an argument) Breath (connects inner and outer in an ongoing manner; oneness) (Konie, 2011)	Body-Half Cross-Lateral reaching Upper-lower body connection (support of the lower body integrated with the goal oriented reach of the upper body, hard work) (Bishko, 2014; Konie, 2011)	Strong Head-Tail connection (sense of self; exploring possibilities) (Konie, 2011) Core-Distal (core beliefs, ability to relate self to other)
Space (how a person relates to their environment)	Sagittal spatial stress Reaching into Horizontal plane	Vertical spatial stress Reaching into Horizontal plane	Vertical stress in stillness; Sagittal in movement
	Central Spatial Tension (involves radial pulls from the center out to the periphery of the kinesphere) (Neff, 2014)	Central Spatial Tension with some Transverse Spatial Tension (involves movements that travels between the center and the periphery, but without a radial pull) (Neff, 2014)	Horizontal plane only to transition Central Spatial Tension with some Transverse
Phrasing (units of movement) <i>1. Preparation (intent)</i> <i>2. Initiation (anticipation)</i> <i>3. Exertion/Main Action</i> <i>4. Follow Through/Recuperation</i> <i>5. Transition</i>	Decreasing (from greater to lesser intensity) Phrasing	Mostly Swing (increasing/decreasing in intensity) with some Even (continuous, unchanging) Phrasing	Even (continuous, unchanging) Phrasing with some Impactive (increasing) and Crescendo (gradually increasing in intensity) Phrasing. Some acceleration in pace

*In parentheses are suggestions and implications for each movement element.

Data Themes from the Initial Verbal Analysis

The initial verbal analysis was based on the four categories of questions posed to all three participants from Group A: (1) Definition of ritual (2) Differences or similarities between communal ritual and therapy (3) Crucial elements of a ritual; and (4) The role of the embodied arts in healing. Six themes were found within these categories: ‘*Ritual*’ as symptomatic vs. healing; Communal structure; Making meaning; Therapeutic intent; and the Creation of symbols. Table 3 provides a summary of the responses for each category.

Table 3

Categories and Summary of Group A Responses

Categories	Participant 1	Participant 2	Participant 3
Definition of ritual <i>Theme 1: Symptomatic vs. healing</i>	“Any tiny action” such as washing hands can be a ritual “to transition between clients;” as well as more elaborate and communal rituals ones	“A part that repeats itself that serves for the security and safeness of the group”	“Indigenous understanding of communal ritual is mostly white people, Wiccan, post-Christian looking for spiritual connection.” “Indigenous function of ceremony is to bring you back in balance and connection with all your relatives, which include the plants and the animals, nations and skies and the earth.” Solstice rituals or morning rituals like “having a cup of coffee” should be distinguished from ceremonies with “deeper” purpose.
Communal ritual and therapy	“In the context of a ritual,” one connects to an inner world, an outer world, to the people of the	“Sometimes meanings or status of rituals may differ between cultures, but there are universal functions in ritual,	With indigenous populations, the work is “leadership training” or “education because therapy has more of a

<i>Theme 2: Communal structure</i>	community and culminates in a “phase of meaning making or reading the narrative.”	providing safety and security, access spiritual connections, trance-like states that are not connected to security and safeness, but that would be connected to specific rituals.”	neuro-Western, white connotation...and in indigenous communities, one-on-one doesn’t work.”
<i>Theme 3: Making meaning</i>	’referred: “a restorative process,” rather than therapy’		
Crucial elements of a ritual	“One of the most important aspects of ritual is preparation ...I take seriously preparing for my clients.”	Structure – Chacian, Kestenber movement and circle dances are rituals that can be used with patients, as long as these were structured to “the needs of the clients.”	“Intention [to heal] and the container”
<i>Theme 4: Therapeutic intent</i>			
Role of the embodied arts in healing	“Working with the body is working with the spirit.”	“We create symbols through embodiment all the time” and this “doesn’t depend on populations.” “Medical healing comes from embodiment.”	Using “different modalities of arts” helps “to deepen” one’s understanding of unconscious material. The symbolic gesture of “brushing down each individual using cedar” while singing a song was therapeutic and/or healing, “because there’s an acknowledgment that cleanses all the remnants of the pain and toxic energy that may be in the body, bringing up difficult memories.”
<i>Theme 5: Spirituality</i>	“Ritual is so important because it involves the body.”		
<i>Theme 6: Creation of symbols</i>			

Comparisons between the Embodied Approach and Verbal Interpretive Analysis

The verbal thematic analysis of Group A’s interviews from the pilot study (which was not included as data) was revisited and compared with the embodied approach from the current study (see Table 4). The comparison exposed the researcher’s tendency to be distracted by the words as ‘facts’ rather than attending to the nonverbal gestalt of what was happening in the interview.

While the verbal analysis was specific and precise about *what* was being said, the wordiness of

the data overwhelmed *how* things were being communicated. Two key activities were identified across Group A participants through the embodied listening process. One was the process of negotiating and clarifying the use of terms. The second was the participants making connections between this researcher's interests in other experts and their publications. These two activities represented what the researcher and participant were *doing together* during the interviews. The embodied, dance approach offered the intent behind these actions via identification with the participants.

For instance, Participant 1's 'voice' as an expert in ritual and healing remained strong even when recommending other authors. This is apparent in the way the dance begins with repeated, rooted, grounding movements, of reaching out with arms from a low level (see Figure 18). In contrast, Participants B and C seemed hesitant and ambivalent about the topic itself (see Figure 19). Participant 2 repeatedly communicated that she did not have much to offer specifically to the dialogue regarding ritual. While supportive, this felt distancing since this researcher had pursued Participant 2 specifically for the study based on a co-authored article by Participant 2 and her colleague. The underlying feeling of this researcher was: "So, where do I go next?"



Figure 18. Dance #1: "Earthy, grounded movements."



Figure 19. Dance #2: “So, where do I go next?”



Figure 20. Dance #3: “Deliberate placement of steps.”

Participant 3, on the other hand, was more concerned with the use and definition of the term ‘ritual’. Initially, this researcher interpreted this fastidiousness to be somewhat demanding. However, in empathically listening and moving to the interview with Participant 3, it became clear that there was a connotation for her that ‘ritual’ was yet another way to appropriate indigenous spiritual practices. Through the dance, the socio-historical context for Participant 3’s frustration became apparent. Her authoritative dignity, putting her foot down and the act of ‘pushing against’ was then viewed as a necessary part of her identity so as not to get ‘whitewashed’ (see Figure 20).

Table 4

Comparison between Verbal Analysis and Dance Rendering for Group A

Themes	Verbal Analysis	Dance Rendering
Definition and clarification of terms	Semantics, e.g. therapy vs. ritual; ceremony vs. ritual	Underlying hierarchy and ethics Navigating the system: <ul style="list-style-type: none"> - “She called me <i>doctor</i> even though I [A] didn’t have a PhD or anything.” - As a “Spiritual director, not a Ph.D. in psychology,” and “a group worker,” C could draw on her creative arts and therapeutic skills as well as “someone who knows how to conduct ceremonies,” without having to “muck around with insurance issues.”
Making connections	Who and what resources can be helpful	Underlying emotional tone: <ul style="list-style-type: none"> - Ambivalence with expertise in subject matter - Authoritative

Summary of Feedback and Revisions

While all three participants commented that the dances were “beautiful,” their undertones varied. Participant 1 remarked that the benefit of a dance rendering was its “pure”-ness: “[w]ords, beliefs, in action,” compared to the wordiness of a transcript. For Participant 2, “the relation to the conversation was not strong,” although she liked the dance “a lot,” and “it resonated” with her. The resonance may have come from the likeness in aesthetics. Nevertheless, this feedback seemed to be in keeping with the theme of ambivalence. Participant 3, on the other hand, protested that the “technique was too good,” which, for her, was “too abstract.” She prefaced this by stating: “I am also a very literal type of gal, so that affects how I see things.”

Varying expectations among participants may have caused some of the incongruences in their responses. Two of the participants used descriptive terminology based in LMA and the

KMP to provide feedback about the dances. However, their stances varied. Participant 1 made descriptive statements:

A: Strong *core* is present.

A: I experienced myself gathering into *center* and then moving *outward in space*, a reciprocity between those two actions.

Participant 2, on the other hand, voiced what she was expecting to see:

B: Maybe I would have liked to see my experience of the flow of the conversation in the *flow* of the dance. At first there was no flow, or a low degree, later there was a high amount of flow of the conversation for me. But that may have been different for you.

It is interesting to note that, despite having provided all three with a verbal transcript of the interview, Participant 3 was concerned with the content, while Participant 2 was focused on the dynamics of the conversation. For example, Participant 3 stated that it was unclear in the dance “that communal ritual or ceremony may be more effective for resolving collective trauma than individual therapy.” She also wrote that she was disappointed that this researcher’s sharing of her performances and excitement about social therapy were not reflected in the dance. This exposed some of the dissonance around what was relevant and meaningful in the conversation for both parties.

Additionally, the level of comfort and affinity for dance as a mode of communication seemed pertinent to the level of agreement in the participants’ feedback. Participant 3 acknowledged: “I have been out of the dance world for almost 15 years so have lost my attunement to it as a mode of expression.” Her primary complaint was that there was “too much modern dance” with “good form,” which lacked connection for her. This was somewhat surprising since tai-chi and Japanese folk movements were employed with very little use of

modern dance technique for her particular dance. She did resonate with the vigorous taiko music stating that “something happened” with the music for her. In their neuro-aesthetic study of phenomenological experiences of viewing a dance, Schubert et al. (2013) have pointed out that “individual differences and/or a lapse in concentration and engagement in the viewing and recording task” (p.10) were reasons for disagreement between the performer and audience. Similarly, ‘good’ agreement correlated more with parts of the dance when the audience was “in tune” (p.10) with expectations of the dance. A revision was made in the approach when sharing the dance: to provide context and translate some of the symbols of expression to assist in explicitly stating the intentions, if not expectations, of the dance.

Another factor contributing to discrepancies could have been due to the degree of intimacy or the presence or absence of prior face-to-face interaction between the researcher and the participants. While the revision was not made to include prior face-to-face interaction, this aspect of interaction may be considered for future research.

Summary of the Embodied-Artistic Approach

Just as in an Authentic movement practice or Chacian DMT, each listening process had a beginning, middle and an end. The warm-up phase in the beginning allowed this researcher to familiarize herself with the environment and be present and attuned to the interview recording. The development or middle section was dedicated to sensing the resonance, attending to dissonance, discerning tone, rhythm, flow, and pitch of the conversation. The end was a culmination of movements that arose from the listening and identifying motifs, ultimately sequencing them together. A crucial element of this step was to consider power differences. Several versions of music were chosen and dances were improvised, until a sense of completion was evident. These dances were then viewed by the participant, researcher and CMA for

reflection. Because dance requires one to be in the moment and have a viewer and/or audience, the ‘meaning’ came after the doing of the ‘lived’ dance/movement experience.

The exploration to explicate an embodied-artistic approach to analyzing interviews brought forth the relational nature of dance. By tracking personal discomfort and judgments, the relational dynamics that surfaced along the interview: between researcher-participant; and researcher-content/meaning of words, beckoned to be examined. As these relational challenges based in the viscera – of disagreements and clashing viewpoints – were addressed, new themes emerged. The cycle of moving and introspection that eventually led to creating a dance was also a process of uncovering aspects of the conversation. These findings pertained to purpose and intent that concerned the ethics encompassing power dynamics, researcher biases, and participant morals.

Relatedly, the time-space between the interview and transcription was identified as the location for a phenomenological, embodied form of understanding to occur. Rather than focusing on the final dance product as representative of the interview, the process of creating a dance highlighted what can be discovered before textual data was analyzed. The following (Figure 21) is the established model for the dance approach:

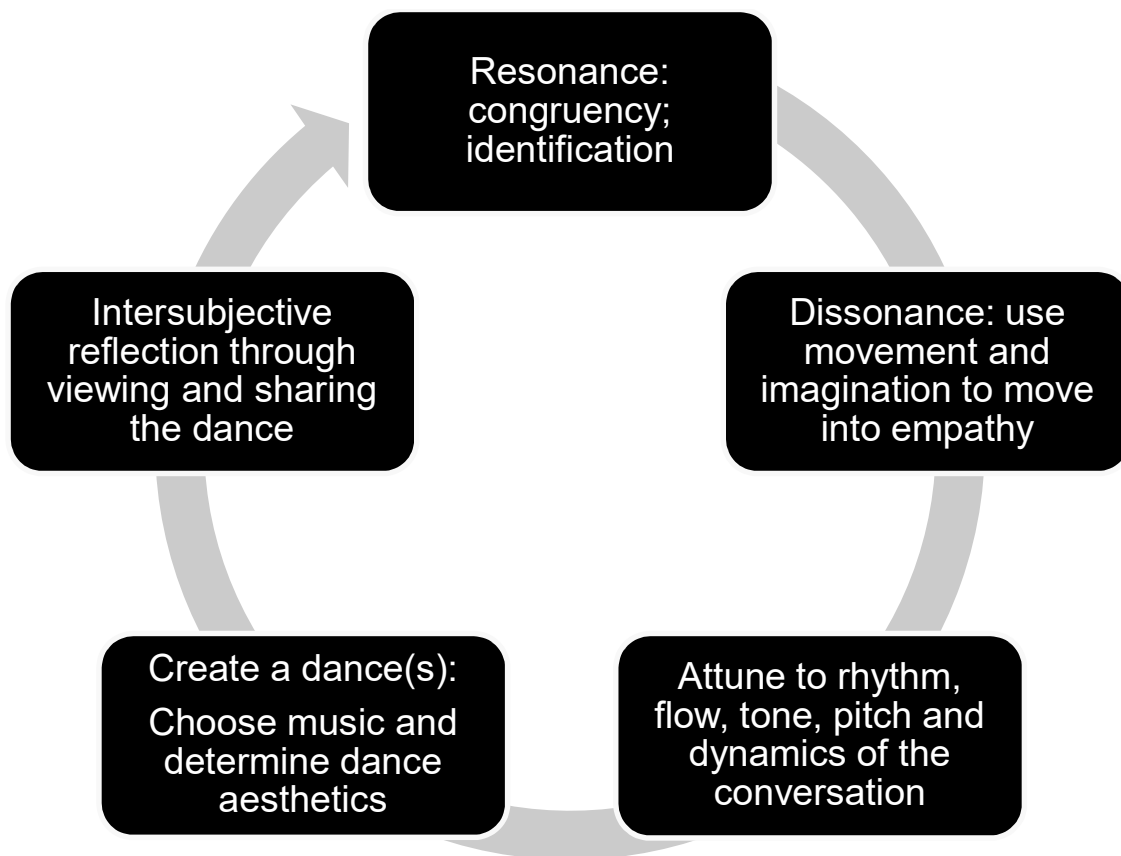


Figure 21. General model for an embodied-artistic approach to analyzing interviews.

Validation Phase

Data Themes (Group B)

Unlike with Group A participants, this researcher had had face-to-face interactions on some level with all three participants prior to the interviews. The common themes expressed by all three of the participants were their fierce loyalty and commitment to DMT work and motivation to keep going no matter what. There was a sense of expansiveness to their stories that exuded integrity. Strength, resiliency, and grace were common threads that tied them together. This was garnered, not in the words that the participants used, but from *how* they spoke in the interviews and from what they did *not* say, that would not have been included in the transcripts.

Interview and dance #4. Participant 4 and this researcher were professional acquaintances, having run into each other a few times during two separate conferences hosted by the ADTA. Being bi-lingual, initial greetings were exchanged in Japanese, while the interview was conducted in English with a few Japanese meta-comments thrown in by both parties. The music needed to reflect the ease and flow of the conversation, yet bring out the crispness of D's tone and precision with words. In addition, an intimate sharing during the conversation necessitated a somewhat serious tone. What was sensed through the embodied listening process was: a *commitment to*, and *giving and growing through the work*; *clarity*; undercurrent of *resilience* and an *unwavering quiet strength*.

Two very similar versions of dance were created based on two pieces of music: “*Campero*” from Astor Piazzolla’s “*Cinco Piezas para Guitarra Solo*,” and Paul Schwartz’s (2004) “*Horizon*.” While the first version was more technically sound, the second version that *spoke* to this researcher was selected and sent to Participant 4 for feedback. The decisive factor was the emotional tone that was conveyed through modern technique and the apparent development within the dance that corresponded with the structure of the music. While no overt expression about culture was made by either party during the interview conversation, a sense of subtly straddling different ways of being was noted in the sheer switching of language, as well as from some of the behaviors described by Participant 4. Without conscious intent, the expression of identity was embodied and danced, and was reflected through the participant’s comments. That Participant 4 referred to one of the pioneers of DMT, Janet Adler’s film: “*Looking for Me*” as an inspirational point of departure for her career in DMT may have prompted this researcher to enact this in the dance, although Participant 4 explicitly stated that she no longer related to the film.

As a co-researcher, Participant 4's feedback centered on this researcher's movement choice. She commented that "many of the movements you used would be the type of movements I would use." She was curious to know if this researcher's "natural movement affinities" were close to hers or if this researcher adapted the movements to reflect her within the conversation. She wrote:

The open, expansive movements of the upper body especially seemed to be congruent to who I am. The fact that you threw in a few ballet steps (pique turns for instance) was on point, too. I thought the end was very much on target to how I usually like to finish a DMT movement exploration...balanced, centered, and present.

She picked up on the intentional changes: "As I watched the first 1 minute and 30 seconds, I was struck by how much of the movements were in plie (bent knees) and thus reminded me of Japan—the skimming along the surface, as when wearing a *kimono* they often do not pick up their feet, because they are used to walking as if they are wearing slippers." This led her to "think of our common heritage," which resonated with this researcher. She also noticed that "The second half seemed to engage more strength/weight," along with "more level changes and use of the torso (postural vs. gestural)." This shift in levels represented the changes the participant had gone through: from having a sense of congruency with her sense of self, involvement with DMT, and diligence towards giving back to the community; to experiencing a betrayal; and coming back strong again (all the while exuding an unwavering determination). The ending depicted Participant 4's transformation, of returning to a sense of neutral place from where she could reach out and keep giving. The video footage entitled "Process of Analysis: Creating a Dance for Interview #4" introduces and tracks Step 4 of the embodied listening

approach to analyzing the interview with Participant 4. This same model was later applied to Interviews # 5 and #6.

Interview and dance #5. Participant 5 is a Japanese dance/movement therapist who trained in the US, and has been pioneering DMT work in Japan. As were previous conversations between her and this researcher, this interview was conducted in Japanese. The Japanese cultural lens illuminated anew some of the terms that are used habitually in the field. For example, Participant 5 referred to dance as “*kattou no hyougen*” or “the process of and/or expression of coming to terms with.” She described embodiment as “*shinnen no gugennka*” or “the materialization of beliefs or convictions.” Her reference to “group” therapy, which in Japanese is literally translated as “collective psychological healing,” brought forth that there was no individual “I” in Japanese. Hence, the step to create “I-poems” in the listening guide needed modification. The embodied listening process generated themes of: *hard work*, *commitment to the work*; *discerning professional battles*; and physical, emotional and intellectual *strength*. This researcher was cognizant of the polarities of Participant 5: introspective and conscientious, yet mellow/laid back and spirited in a carefree manner. The feeling this researcher wanted to exude was “*chaki-chaki*” – loosely translated as a sense of “efficiency.” A Japanese Okinawan song, “Eternally Ecstasy” composed by Shoukichi Kina (1994) and performed by a group called Peppermint Tea House was chosen.

As a co-researcher, Participant 5 reported that she observed a balance of opposing forces, which matched this researcher’s process of discovery and intent in a number of ways. The first was related to the music and notion of efficiency. Participant 5 noted a lack of ‘excess’ in the dance. This corresponded to her view of how she presented herself and was seen by others – not having “a chink in” her armor. She attributed this congruency in the dance to what she perceived

as the “exquisite balance” between the strength, expressed in movement, combined with a humorous song. She explained this “unique” contrast using the Japanese word 強い, which can be read as: *kowai*, meaning “scary;” or *tsuyoi*, meaning strong or determined. She perceived the motif of slamming the floor (or pressing down using strong weight with both hands) as symbolic of her daily struggle to keep going and laugh about the situation, despite less than amenable circumstances surrounding her work as a dance/movement therapist. She reminisced that there was probably immense pressure and responsibility on her as a DMT representative upon returning to Japan and beginning her clinical work. She reflected that through time, she must have created this persona of herself as somebody who had no “breach” in her performance. The experience of viewing a dance about the interview conversation elicited emotions in the participant that she had set aside and/or was unaware of in her personal experience. Like Participant 4, she thanked this researcher for providing her with this “gift” that enabled her to reflect on where she was in her life. She was fascinated by the feedback process and volunteered to do it again at a later time. A short clip of the interview analysis with Participant 5 can be viewed in the video footage entitled “Validation Phase: Group B Dances.”

Interview and dance #6. Participant 6 and this researcher had known one another in a professional capacity for 10 years. Some of the themes that emerged through embodied listening were: *unwavering determination* (warrior spirit), *resilience*, *clarity in their journey* as a dance/movement therapist. A feeling of “pushing against,” to contain and hold the sanctity of DMT as a field, was sensed. The music that was selected was Paul Schwartz’s (2004) rendition of an aria “*Ebbene ne Andro Lontano* (Well then, you must travel a little ways)” from “La Wally,” composed by Catalani.

In her feedback, Co-researcher 6 expressed that she was initially attuned to the “beauty” of the dance. Her thoughts then transformed to: “encompassing beauty” and then “grounded beauty.” She noted a “feeling of intensity” built into the progression of the dance. She experienced this dancer “processing something in depth...witnessing something difficult but pleasurable and fulfilling.” She likened this view to how she felt about being a dance therapist: “I feel such pleasure dancing with my patients, but putting the pieces (of movement/ of group process/ of patients’ stories or histories/logistics etc.) together can be difficult.” She followed up by relating an anecdote from her dance therapy session on an inpatient ward. The four men she had in her group were resistant to dancing. “One of them I was sure wasn't going to dance at all.” After dancing with each patient separately, they began connecting with one another. After much work, (“I was sweating a lot”) she managed to have them turn in a canon:

Co-researcher 6: It was so gorgeous and all of a sudden there was an audience of nurses and doctors and people were smiling and other patients then began to join in, sing, dance spontaneously. Then a little while later we were able to form a line and move together in unison forward and backwards in a line. Even the man who I thought wasn't going to dance did.

The “clear aesthetics” she observed in the dance reminded her of the conversation about aesthetics and how “not enough attention is given to this in our profession or perhaps education process in becoming a DMT.” She made a direct connection to the possible needs of the DMT field through an embodied experience about the topic. A short clip of the interview analysis with Participant 6 can be viewed in the video footage entitled “Validation Phase: Group B Dances.”

Summary of Findings

Unlike that from Group A, the feedback from Group B was consistently positive. Two of the participants expressed their “joy” and gratitude in seeing the essence of the conversation and their spirit mirrored in the dances; while the third remarked that witnessing this researcher’s dance sparked her desire to engage in a similar “creative analysis.” Co-researcher 4 wrote, “Even if your natural movement affinities are not what you danced in that video, it is quite amazing that you captured so much of how I would most likely move/dance, just based on our conversation.” Such responses were consistent with the literature that the level of kinesthetic empathy was associated with enjoyment and higher cortical excitability (Jola et al., 2012). The exploratory process seemed contagious, with a sense of curiosity being transmitted to the participants. Furthermore, the personal enjoyment of ‘liking’ a particular movement or phrase seemed to allow for the language and meaning of the movements to come together aesthetically, in a verbally inexplicable manner.

CHAPTER 5

Discussion

This study attempted to develop a systematic approach to use dance as an instrument for qualitative interview analysis. Previously developed analytical frameworks were adapted and/or applied critically to formulate the model using a dance approach: Gilligan et al.'s (2003) listening guide method provided structure for the researcher to listen to a person's multi-layered voice by paying attention to "its range, its harmonies and dissonances, its distinctive tonality, key signatures, pitches, and rhythm" (p.157); the embodied and relational DMT skills augmented this "listening;" and LMA aided in describing the meaning making process through this researcher's situated aesthetic perspective.

As per the literature, the analysis happened in the *doing, in* movement, rather than as way of transcribing verbal thought *into* movement (Brown, 2008; Sheets-Johnstone, 2011; Warburton, 2011). The unfiltered rawness of moving in direct response to the audio recording brought forth the *how*, such as attitudes and the tone of the conversation, rather than the *what*. While a verbal analysis may offer precise concepts included in the content of an interview conversation, a dance infers the emotional connection with the participant and/or the participant's relationship with the research topic.

Three pertinent features of dance as an approach were identified. The first is the freedom that a nonverbal expression can afford. The researcher's biases and disagreements with the participant could be explored without the threat of naming and solidifying anything as fact or truth. The researcher's attitudes and discomforts that were set aside as irrelevant in the verbal analysis turned out to be potential themes that should not be ignored in the analysis. The

awareness gained from exploring the tension experienced by the researcher could then provide transparency and offer an ethical basis for arriving at particular interpretations of the data.

The second is that a connection is made between the researcher and participant through the appreciation of aesthetics. Aesthetic agreement between researcher and participant appeared to determine emotional consensus on the essence of what was communicated in the dance. In accordance with Bruscia (2005), who asserted that aesthetic quality – creativity, enlightenment, structural beauty and expressive beauty – can influence what one can know, the researcher's intention to express 'aesthetically' within a clear, artistic dance structure prompted some participants to deflect and become confused (particularly with Group A), while other participants were urged (on their own) to go deeper into their psychological, introspective process.

The third was that the dance analysis articulated the participants' aspirations and ideas about themselves that they had not verbalized in the interview. Although a thematic analysis using a verbal, listening approach can also get at the underlying tone of what is being said, future aspirations and thoughts of the participants that they themselves were not aware of could be elucidated in the reflexive viewing of the created dance. These responses by Group B co-researchers reflected the aesthetic quality of enlightenment (Bruscia, 2005; Fox, 1994). Such findings were contingent on the relational and emotional focus, not only in creating the dance, but sharing the footage and continuing the dialogue without any intentionality or expectation on the part of the researcher.

The ensuing discussion of explicating and testing the approach addresses each of the guiding research questions:

1. What are the benefits and limitations of dance as an approach to analysis?
2. What can be known about interviews and other verbal, textual data through a dance?

3. How does one represent and communicate meaning interpreted through a dance?

Benefits and Limitations of an Embodied-Artistic Approach to Analysis

Using dance and other embodied ways to listen and communicate aesthetically can expand what can be known about somebody's experience. While the verbal analysis may capture the factual aspects of an interview, the dance approach may uncover the complex relational dynamics that can be used to infer the direct, emotional experiences of participants that cannot be expressed neatly in words.

Hanna's (1987) comparison of dance and verbal languages based on the linguistic analysis work by Hockett and Ascher (1964) provides a framework to collate the benefits and limitations of dance as applied in research. The findings of this study along the six categories proposed by the framework are presented in Table 5. The benefits and limitations are considered from the perspective of the receiver of communication and/or viewer of the dance. Benefits of dance and the body's involvement in communication are supported by much of phenomenology and embodied cognition literature. What are lacking in these categories are relational ones – what is socially acceptable to say or dance will impact the use of both dance and verbal languages. One such important benefit of dance is that the freedom it can afford to grapple with socially unacceptable thoughts or feelings can be played within a contained environment.

Table 5

Benefits and Limitations of Dance as Applied in Research

Categories	Benefits	Limitations
Vocal/auditory vs. motor/visual channels	-Emphasis on viewer's visceral sense -Increase in empathic ability due to the activation of mirror neurons (Calvo-Merino et al., 2008; Winters, 2008; Jola et al., 2012)	-Cannot engage/listen to the 'conversation' while multitasking -Receiver must see the dancer

	-Can stimulate imagination (Meekums, 2006)	
	-Can touch upon viewers' embodied memories (Pain, 2009)	
	-Enhances cortical excitability (Jola et al., 2012)	
Temporal vs. both temporal and spatial Dimensions	-Emphasis on situated-ness	-Non-linear
	-Culturally, socially and individually determined	
	-Non-linear	
	-Timeless	
	-Can transport the feeling of a kinespheric 'world' instantly	
Speaker hears self vs. dancer does not see self	-Relational aspect is highlighted: feedback is required of viewer or through technology	- Relational aspect is highlighted: feedback is required of others or through technology
Fuller involvement necessary in dance	-Experienced on a kinesthetic-feeling level, rather than 'cognitive'	-Emotionally and physically taxing
	-Can act as a bridge/metaphor for thought (Lakoff & Johnson, 2008; Schubert, 2005)	-Physical and technical limitations or aesthetic preferences can affect outcome
	-Takes one outside of the ordinary sphere of communication	
	-Can savor and experience through multiple channels	
Phoneme and morphemes as minimal units vs. lack of agreement of minimal units	-LMA's Phrasing can be explored further to understand how one prepares, initiates, exerts, sequences, and transitions	-Cannot be articulated
Greater ease (detailed syntax) vs. greater difficulty (syntax exists only for few dances)	-Arrangement of movement/steps are based on movement Phrasing and a feeling of purpose	-Varied encoding and decoding possibilities

Knowing Interview Data through Dance

In line with Bruscia' (2005) ethical standard for interpersonal integrity, using movement can be a way to flesh out potentially relevant information around the situatedness of the

researcher and respecting and clarifying the participant's voice. Introspection through movement can expose the artists' values, biases and intersubjective phenomenological experiences (Niedenthal et al., 2005; Sheets-Johnstone, 2011). For instance, with Participant 1, this researcher felt hesitant with regard to her referring to spirituality as a normative idea in DMT. In the verbal analysis, the discomfort this researcher felt was glossed over. Rationalizing that Participant 1 was the 'expert' on the topic was one way for this researcher to avoid digging into this dissonance. In line with Landy et al.'s (2012) "transferential/aesthetic" (p. 51) process in drama therapy, the researcher was compelled to somatically take on the experience of the participant, and describe this intersection of the self's relationship with the participant as well as with her relationship to the phenomena being investigated. The findings highlighted that interpreting interview data through a dance brings forth the artist's values, biases and intersubjective phenomenological experiences. This, in turn, highlighted the power differential in the interviewer-interviewee relationship, which turned out to be a theme throughout the conversation in varying contexts.

Along the lines of situated-ness, the dance offered a vehicle for this researcher to delve into what may be socially unacceptable feelings about the conversation. Participant 4 stated that doing DMT was more "involved" than doing verbal therapy. The messy, relational, and humanistic nature of DMT work can be uncomfortable and emotionally exhausting to experience. Whether in therapy or research, there are notions too threatening or complex to verbalize. Through the arts, the researcher can access a broad spectrum of emotional expression. Although interpreting interview data is not 'therapy', an approach using the body and dance can allow one to become aware of and take steps (literally as well) to transform the tension that is

felt. Since qualitative interpretations are based on a researcher's subjectivity to begin with, making these biases visible can also provide a way to ethically screen and assess the findings.

Attending to dissonance in the conversations through embodied listening also brought out the uniqueness and 'other-ness' of a participant and opened up space for further exchange. For instance, Participant 5's definition of dance as "the process of and/or expression of coming to terms with;" and embodiment as "the materialization of beliefs or convictions" reveal the nature of a way of knowing through a dance. Dance as a phenomenological relational experience can be a research tool, not to convince others of a singular finding, but to offer a vehicle and space to be skeptical and yield to a collective discovery.

Participant 3 from Group A pointed out that the "back and forth" of an interview makes it challenging to determine themes and then explore further using tools like modern dance technique. If the dances were indeed a representation of Participant 3's voice, then member checking should be built into the process: re-choreographing or changing the style of the dances according to the 'correct' themes. Having the participant provide feedback according to their expectation and then creating anew the dance would be appropriate. However, the relational back and forth of what the researcher and participant were doing together in the interview may be exactly what dance can highlight. Instead of focusing on the content, the emotions, particularly the negative ones that are often denied or hidden, may offer pathways into discovering aspects of a seemingly straightforward interview. Emotion becomes the motivator for employing aesthetics creatively.

Communicating Meaning Interpreted through a Dance

While not everybody is adept at reading non-verbal cues, the emotional component that permeates a dance can convey a feeling of purpose and connection for those who can stay

present in the dance experience. As the literature pointed out, however, this can depend on expectations, empathic ability, aesthetic preference, and training (Carless & Douglas, 2011; Rossiter et al., 2008; Schubert et al., 2013). Rossiter et al. (2008) found that dance was better understood by health care practitioners rather than the artists in the audience because the symbolic representation of the dance ‘made sense’ emotionally to the non-dancers through their empathic, embodied knowledge of working with TBI patients. Schubert et al. (2013) have similarly noted that expectations were paramount to the perceptions from viewing a dance. In addition to receptivity, Carless and Douglas (2011) noted aesthetic preference was also a criterion.

The ambiguity of dance can play in favor of ‘performing’ the ongoing nature of a multi-layered ‘selfhood’ in relationship to others (Köpping, 2005; Wulff, 2005; Palmar, 2013). This is a double-edge sword in which the researcher’s personal integrity – of authenticity and caring – can come into question. Meaning can vary depending on the researcher and participant’s intent, focus, paradigm and context (Bruscia, 2005). The difference between Group A and Group B responses to the dances spoke to the importance of emphasizing dance as an approach to listening and creating meaning together between researcher and participant.

Bruscia (2005) ascertained that the researcher’s humanity and relational capacities were determinants for ethical, rigorous research. Through the dance, the researcher identified with the participant, as well as with other entities described in the interview narrative. In turn, the participants either saw themselves or the researcher reflected in the dances. The nuances or abstract concepts such as “responsibility” and “pressure” could be fuzzy propositions wherein degrees of truths could be mapped. The dance created a bridge between the inner and outer

worlds of the participants and integrated these through “our feelings, aesthetic experiences, moral practices and spiritual awareness” (Lakoff & Johnson, 2008, p.193).

Much like through music, the feeling of something could be communicated through the dance. The participants from Group B were in agreement that the essence of the conversation, of what they communicated in the interview and/or their “spirit” was represented in the dance. This feeling could be transported in time and space in an instant: through the glimpse of a movement; or sound of music based on the knowledge that is embodied. Niedenthal et al. (2009) established that the simulation of emotions, such as in viewing a dance, partially reactivated the neural state from when the experience occurred. A “particular emotional cue” (Niedenthal et al., 2009, p.1121) can be enough for this to happen. For instance, from experiencing the dance as “encompassing beauty” and “grounded beauty,” Co-researcher 6 recalled “speaking about aesthetics and how not enough attention is given to this in our profession or perhaps education process in becoming a DMT” in the interview. This memory was evoked through her emotional response to seeing “a clear aesthetic” in the dance that was shared. It can be surmised that Participant 1, whose response to the dance was the most positive among Group A participants, could relate with the dance because *how* she used DMT using ‘ritual’ with her clients matched this researcher’s understanding, emotional tone and expression of it.

What matters then is not to impress through technique, but to encapsulate the aesthetics – “notions of appropriateness, quality, or competency” (Hanna, 1987, p. 38) from the dancer’s and participants’ socio-cultural perspectives. It may not necessarily be important to stay with ‘character’ movements, as was done in Boydell’s (2011) study, but to emulate the emotional tone through a combination of artistic technique. Participant 5’s notion of beauty as “a feeling of peace,” or satisfaction, for example, came together with this researcher’s views to create a new

connection and understanding of the participant and her experience through a combination of movements, including facial expression and techniques, as well as music.

Relatedly, creating and viewing a dance may motivate involved persons to form social bonds. The gratitude and kindness expressed by the co-researchers/participants in this study was a welcome surprise. The embodied listening that is kind of a ‘labor’, appeared to heighten empathy for both participant and researcher. Vicariously experiencing the myriad emotions, especially that of the sadness and struggles, elicited compassion on the part of the researcher; and perhaps a feeling of being heard by the participants. Attempting to verbally translate these movement metaphors, images and feelings can be challenging, yet may expand the quality of awareness of various facets of the conversation for both the researcher and the participant. The closeness between the two may also impact the quality of the findings.

Finally, performing and sharing a dance for others to see and await their ‘judgment’ requires the researcher to remain in a state of uncertainty. As Participant 4 pointed out, “It seems far more vulnerable and exposing for you to continue our conversation through your body in movement.” Perhaps this vulnerability can be a great equalizer to give power back to the participants. The crucial piece, however, is the attitude and gaze of the viewer. In Halprin’s construct of dance-as-ritual, the person who is viewing the dance performance becomes a witness – “an individual who is present at the performance to support it with her attention” (Ross, 2004, p. 49). The co-researchers’ reflections on each of the six dances that were created for this research offered insight into dance as a research tool that exposes how practices and meanings shift through the particularity of this researcher’s situated-ness and relationship with the participants. What made the interviews mean something came alive in the relational, aesthetic realm.

Implications for Future Research

A crucial difference between this and previous approaches used by dancers and actors in many of their studies was having no role separation between the researcher who collected and analyzed the data and the artist who interpreted and represented the data. Up to date at Lesley University, only one dissertation study by Wadsworth (2016) has put forth the researcher's aesthetics and emotionality in attempting to go beyond language and interpret and communicate research findings using dramatic enactments and performance. Further studies by researchers who straddle both arts and science fields with knowledge of various artistic frameworks may bring insight and understanding of the benefits of this type of approach to research. One example would be to develop an embodied-artistic approach using KMP, which has the potential to articulate meaning through rhythms, bring to attention the significance of breathing, heart rate and other physiological rhythmic patterns. For DMT research, having the participants respond through their own movement and dance can be another way to further the understanding of data that began with the interview.

Contraindication should also be considered. Participant 3 expressed that dance was both a strength and a limitation as an approach to analysis stating that her "understanding of dance therapy is moving from the inside out [...] One can dance from the inside but there are [different] forms with which one expresses oneself." Depending on the preference of the participant, a different modality may be a better match. In future research, this approach can be adapted to other CAT modalities to yield comparative findings around aesthetics. Similarly, the descriptive language used within the framework of LMA has not been tested cross-culturally and warrants further research.

The prerequisite for integrating artistic and movement-based frameworks for interpretation of verbal data is to clarify what cannot be communicated through the interview alone. Differences between verbal and embodied ways of knowing should be elaborated upon. A more imminent discourse, however, may center on trusting the ambiguous knowledge that only a handful of people might have the patience to decipher. Meekums (2014) argued that the choice of a research paradigm, ranging from positivist to critical-ideological, would be influenced by: training, inclination, societal discourse and “rebellion, reason or a wish to be seen to do what is acceptable” (p.125). The training and practice of dance contribute to acquiring this particular mode and form of communication. With the particular kind of knowledge, dance/movement therapists can initiate the discourse on integrating other types of dance technique and therapeutic skills into research, but a societal discourse needs to continue with experts in other modalities. In addition to doing research with participants who are not trained in dance, the broader ethical issue of the role and value of the arts in society needs to be addressed through systematic research that illuminate their potential for enriching the understanding of human experience and transformation in everyday life.

Limitations of the Study

There are several known limitations of this study. The first is that these dances were created by a single dancer-researcher. Participant 3 reflected that a potential benefit of dance as a way to communicate the interview findings depended on whether the dance was “a collective or solo performance.” Having a group of dancers may add varied perspectives for interpretation, as well as expression. Relatedly, collaborating with other artists, such as including a musician who can improvise and perform music with the dancer, may further enrich the interpretive process.

Another issue regards the need for meeting a person face-to-face and having a kinesthetic

sense of someone, not just virtually, but in real life prior to or during the interview. That the participants whom this researcher had previously encountered on a whole body level responded more positively about the dance could be significant, and a way to triangulate data, which was not addressed in the method.

Lastly, having another person or a digital camera that tracks the dancer can increase the quality of the videos and simplify and streamline the process. Doing a live improvisational performance in the presence of the participants may also elicit variegated responses.

Concluding Remarks

The creative arts therapists are on a threshold. Johnson (2009) cautioned that “Expression, the liminal, the relational, and the internal” (p.117) are domains of CAT that have been downgraded within an academic hierarchy that emphasizes verbal knowledge. As someone who does both verbal and dance therapy, Co-researcher 4 asserted: “one is not better than the other – we need both.” This research has shown some of the benefits of the inclusion of an embodied, dance approach to understanding interview data. The idea of the art-making as a way to reveal what is ‘in-visible’ and indescribable in words was not new. However, the metaphors that social scientists use to then talk about and give meaning to such expressions can be afforded more rigorous attention. Knowledge through temporal-spatial aesthetic forms is archived in the body and manifests in relationship. Feminist, Jean Baker Miller (1986) stated, “Personal creativity is a continuous process of bringing forth a changing vision of oneself, and of oneself in relation to the world” (p.111). Miller acknowledged the cultural determinants that frame people's thoughts and feelings, but also recognized the strain that people experience within those boundaries and the struggles to express themselves. This dissertation was an attempt to expand

the boundaries that constrain thought by presenting an alternative approach to transform the role of the body and the arts in research.

APPENDIX A

INFORMED CONSENT (GROUP A)

Project Description:

You are invited to participate in the research project titled “Embodied Performance and Communal Ritual.” The intent of this research study is to discover if there are therapeutic elements of embodied performance in a communal ritual. Your expertise as a practitioner in the creative and expressive arts therapy field and/or ritual practices will be invaluable for the exploration of the interface of these two areas of study.

Procedure and Risks:

I would like to record the interview, if you are willing. The interview will be recorded only with your written and/or oral consent. I ask that no personal identifiers be used during the interview, to ensure your anonymity. Please feel free to say as much or as little as you would like. You can decide not to answer any question, or to stop the interview any time you want. The recordings and transcripts will become the property of this research project. If you so choose, the recordings and recording-transcripts (or copy of notes taken) will be kept anonymous, without any reference to your identity, and your identity will be concealed in any reports written from the interviews. There are no known risks associated with participation in the study.

Benefits:

It is hoped that the results of this study will benefit the creative arts therapy field and community at large through providing greater insight into the contributions and limitations of an embodied communal ritual.

Cost Compensation:

Participation in this study will involve no costs or payments to you.

Confidentiality:

All information collected during the study period will be kept strictly confidential until such time as you sign a release waiver. No publications or reports from this project will include identifying information on any participant without your signed permission, and after your review of the materials. If you agree to join this study, please sign your name on the following page.



29 Everett St., Cambridge, MA 02138

INFORMED CONSENT FOR INTERVIEWS

Embodied Arts and Communal Ritual

I, _____, agree to be interviewed for the above said project _____ which is being produced by Tomoyo Kawano of Lesley University.

I certify that I have been told of the confidentiality of information collected for this project and the anonymity of my participation; that I have been given satisfactory answers to my inquiries concerning project procedures and other matters; and that I have been advised that I am free to withdraw my consent and to discontinue participation in the project or activity at any time without prejudice.

I agree to participate in one or more electronically recorded interviews for this project. I understand that such interviews and related materials will be kept completely anonymous, and that the results of this study may be published in an academic journal or book.

I agree that any information obtained from this research may be used in any way thought best for this study.

_____ Date _____

Signature of Interviewee

If you cannot obtain satisfactory answers to your questions and/or have comments or complaints about your treatment in this study, please contact: The Lesley University Internal Review Board can be contacted via the Co-Chairs, Robyn Cruz (rcruz@lesley.edu) and Terry Keeney (tkeeney@lesley.edu).

APPENDIX B

INFORMED CONSENT (GROUP B)

You are invited to participate in the research project titled “Developing an Embodied Approach for Analyzing Interview Data.” The intent of this research is to develop an embodied approach to analyzing interviews and other textual data to assist in the interpretation to reveal new facets. Your participation will entail reflecting on your professional experiences as a dance/movement therapist and then later, reviewing a short video of an embodied analysis of your account offered by this researcher.

- You are free to choose not to participate in the research and to discontinue your participation in the research at any time.
- Identifying details will be kept confidential by the researcher. Data collected will be coded with a pseudonym, the participant’s identity will never be revealed by the researcher, and only the researcher will have access to the data collected.
- Any and all of your questions will be answered at any time and you are free to consult with anyone (i.e., friend, family) about your decision to participate in the research and/or to discontinue your participation.
- Participation in this research poses minimal risk to the subjects. The probability and magnitude of harm or discomfort anticipated in the research are no greater in and of themselves than those ordinarily encountered in daily life.
- If any problem in connection to the research arises, you can contact the researcher: Tomoyo Kawano, at (802) 456-1083 and by email at tkawano@lesley.edu or Lesley University sponsoring faculty Dr. Robyn Cruz at rcruz@lesley.edu.
- The researcher may present the outcomes of this study for academic purposes (i.e., articles, teaching, conference presentations, supervision etc.).

My agreement to participate has been given of my own free will and that I understand all of the stated above. In addition, I will receive a copy of this consent form.

Participant’s signature	Date	Researcher’s signature	Date

The Lesley University Internal Review Board can be contacted via the Co-Chairs, Robyn Cruz (rcruz@lesley.edu) and Terry Keeney (tkeeney@lesley.edu).

APPENDIX C**INTERVIEW GUIDE (GROUP A)**

- (1) Do you use 'ritual' in your work therapeutically? (How is ritual helpful?), which was later altered to: What is your concept of a communal ritual?
- (2) What do you think are the healing or crucial elements of a ritual?
- (3) Is there a relationship between CAT and ritual? Do you consciously use ritual in your practice?
- (4) What is the difference between therapy and ritual? What are the ethical considerations for utilizing 'ritual' in therapy?
- (5) What is the role of the embodied arts in ritual?

APPENDIX D

INTERVIEW GUIDE (GROUP B)

This study aims to develop and delineate an embodied approach to analyzing interview and other textual data.

Participation in the interview will entail engaging in a recorded interview for up to 60 minutes to discuss your professional experience as a dance/movement therapist.

Questions

- 1) How long have you been practicing as a dance/movement therapist?
- 2) What are your thoughts about this profession?
- 3) What have you found inspiring about the work?
- 4) How would you describe the benefits of dance/movement therapy?
- 5) Are there any limitations to using this modality?
- 6) What does embodiment mean to you?
- 7) What does aesthetics mean to you?
- 8) What does expression or creativity mean to you?
- 9) Has anything changed for you since you first started out as a dance/movement therapist?
- 10) How does the American Dance Therapy Association (ADTA) assist in the development of professional dance/movement therapists?
- 11) Are there any suggestions you have for the ADTA or educational institutions to improve the quality and preparedness of new dance/movement therapists?
- 12) Is there anything that comes to mind about the use of dance/movement therapy in community arenas?
- 13) Do you have any other thoughts?

APPENDIX E

LMA: PRELIMINARY MOVEMENT PROFILE FOR RESEARCHER

From a body perspective, Tomoyo showed a strong center with an active expression of the head/tail connection. Her breath seemed even throughout, with larger and deeper expression of breath when including jumps or moments rebounding through the torso. Her torso remained fairly held throughout with active use of limbs, both arms and legs. The arm/scapular connection was also actively expressive through both simultaneous and successive use of the arms, with a successive follow through of the head and neck. Her upper and lower body seemed integrated and organized throughout transitions and linking of movement phrases. She also utilized body half connection in turning movements.

Her effort life was wide and varied, with a preference for light weight and bound flow, expressed especially through the arms, hands and fingers. She tended to return to this place of dream state throughout the improvisation. To reflect the dynamic changes in the music, she also expressed moments of awake state, utilizing quick time and direct space, reflecting the quicker moments of the accompanying music. These moments often corresponded to a scattering gesture in the horizontal plane, opening the arms with these effort expressions. In a repeated gesture of both hands pressed together in the vertical dimension, there was also use of direct space and bound flow in remote state. The moments of dream state and the repeated gesture of palms together in remote state seemed to offer moments of recuperation throughout. There was also a moment where Tomoyo extended this gesture into a postural jump, using quick time, bound flow and direct space in the vision drive. Tomoyo seemed to not use strong weight very often, but preferred the more indulging expression of weight effort.

Tomoyo's preference for modes of shape change tended to utilize directional arc like movements with both arms and legs. She utilized both the vertical dimension and the vertical and horizontal planes in these movements, as she traced these spatial planes with her limbs. She also moved with more three-dimensional carving movements as she circled around herself and shaped through her torso. In these moments, she used transverse movements. Her spatial pathway tended towards a diagonal advancing and retreating pathway through the space, using walking and waltzing for locomotion. Her movement phrasing tended towards swing phrasing which reflected the music. She also showed brief moments of impulsive phrasing as she engaged in jumps or leaps.

This improvisation seemed to reflect a theme of exertion and recuperation, showing a flow from moving through space to moments of stillness repeating the gesture of pressing palms together and tracing the vertical dimension. The piece began with advancing and retreating with arc-like directional movements in the arms, with a recuperation moment of a jump in the vertical dimension. Then she moved into a waltzing sequence with a more circular spatial path and more rounding and shaping in the torso. There was then another recuperation moment of a leap, followed by a section of circling round the self, around her vertical axis. This was then followed by a moment of repeating the pressed hands motif, turning and returning to the motif.

APPENDIX F

LMA: INTERVIEW #1 (Participant 1)

This movement exploration exhibited a baseline body attitude with a Sagittal spatial stress, with a feeling of the forward and back space of the body and the potential there. The breath was even and deep at times, with strong exhale with stronger exertion. At the same time, the body's structure held a pin body type with more of a Vertical stress along the central axis of the body. The initiation of most movement came from the lower body to start the exploration, with a successive movement of the legs coming from a deep thigh fold into lunging. This expression of the Thigh Pelvis connection kept the body in the low space of the kinesphere. This progressed into a Body Half folding with Arc like directional movement of the arms. Later in the exploration there were several jumps, which were very buoyant and extended into the high space, perhaps because of the use of the low space in these lunges. This use of the Thigh Pelvis body connection seemed to carry the dancer throughout.

There was a theme of Strong weight and Quick time throughout this movement exploration. In the first moments, beginning with the low lunges, there was a use of Strong weight and Direct space in the Stable state. There were many moments of spreading with the arms that traced the Horizontal plane that used Bound flow and Direct space in the Remote state. There were also many moments of Drive expression. As she jumped, she would use Bound flow, Direct space and Quick time in the Vision drive. Also there was also a distinct moment of Action drive where the arm moved in an arc and closed fist in the Mid Reach Space using Strong weight, Direct space and Quick time in a Punch. The movement exploration finished with another Action drive Punch crossing the arms across the midline and extending out to the sides simultaneously with the legs in a deep lunge using Strong weight, Direct space and Quick time. The Effort themes favored the fighting efforts throughout the exploration. There was one exception when there was a moment of carving the arms around the Vertical Axis with circling of the torso around the axis as well, where some Free flow was incorporated.

This particular moment of Carving around the body's central axis was a brief moment of more three dimensional movement. There was some arching of the torso into the back space as the arms traced the back high points of the sagittal plane. There seemed to be an overall preference towards Directional movement both Arc-like and some Spoke-like as well. There were also some moments of Shape flow, which were portrayed through brief moments of self touch that extended from the center. Overall there was a fairly wide range of Shape expression with a preference towards Arc like directional movements with the arms and legs. This type of movement can connote bridging in the environment and making connection with people or objects.

The kinesphere was used in a full way. There were moments of Near reach space which were demonstrated through self-touch and some recuperative movement of pressing palms together through the Vertical dimension close to the body's center. In the use of Mid Reach Space, there seemed to be repeated use of fists and Strong weight. While using Far Reach Space, there was more extension of limbs through to the end of fingers and feet. There was some use of Dimensional movement, but there seemed to be a preference for Planal movement and some Diagonal. There were repeated reaching into the Horizontal and Sagittal Planes.

The phrasing in this exploration showed mostly Impulsive phrasing with the accent on the beginning of the movement phrase. This phrasing was also supported by the Effort themes of

Quick time and Strong weight. Efforts were often used at the start of a phrase to load the phrase towards an Impulsive feeling. The movement phrases were of moderate length and at times built up from the previous phrase with a feeling a slight Crescendo. These themes were also supported by the structural body theme of using the deep thigh fold and low space in the kinesphere to have access to Fighting/Condensing efforts and stronger Phrasing expression.

APPENDIX G

LMA: INTERVIEW #2 (Participant 2)

This movement exploration held a focus of a strong Vertical spatial stress throughout with a primary body type of a Pin. Breath remained even, exerting more as the movements warranted a larger exhalation through jumping or preparation for a jump. Her torso remained fairly held and movements were initiated from the hands or arms. Towards the beginning of the exploration, both arms moved simultaneously, using a successive movement starting from the hands and moving in a wave like motion down the arm. There was also a focus on Body Half, moving one side of the body and then the other. This movement then evolved into a Cross-lateral reaching across the body. This Cross-lateral reaching remained a strong theme and motif of movement throughout the exploration. There was also a strong use of Thigh Pelvis connection, which supported jumps and other elevated movements. These deep connections also showed an organization through the Upper Lower body connection.

These body connections provided a foundation for expressions of Shape Change. After an initial section of the body remaining held in the vertical dimension, there was a moment of Spoke-like Directional movement with the left leg that stepped away from the vertical. At this point the torso was able to become more mobile and explore Carving movements through gathering gestures and postural shifts. The theme of reaching across the body was expressed both through Arc-like directional movement and some gentle Spoke-like movements as well. She also used the arms to simultaneously help lift the body into a jump with her leg in attitude reaching with both arms into the high points of the vertical plane. Throughout the exploration there was a baseline of Shape flow and breath support to the movement although not as much of an outward expression of Shape flow.

Exploring space also made a notable shift after the aforementioned Spoke-like Directional extension with the left leg. At this point, she began to move in a Central Spatial Pathway with a central spatial tension and at times some transverse spatial tension as the torso engaged in more carving and reaching while moving through space. There was also a strong use of the Vertical Plane, reaching to the high points of this plane. Repeating the reaching motif there were also many moments of reaching to the forward points of the Horizontal plane while reaching across the body in a Cross-lateral motion. In the beginning moments of the exploration there were also Body Half reaching from side to side in the horizontal dimension as well as up and down reaching moments that seemed to serve as recuperation from the reaching away from center.

Effort expression in this exploration seemed to hold a theme of Flow, mostly with an undercurrent of Bound Flow and control of energy. There were brief moments of Free flow when her hands would extend at the last moments of a reach. Also as the body expressed Carving and Gathering there were expressions of Free flow in the hands. The primary Effort State utilized was Remote state using Bound flow and Direct space in reaching across the body as well as reaching to other spatial points. There were also moments of Dream state where Bound flow and Light weight were expressed. She utilized Quick Time effort as she jumped in attitude and tour jete to achieve elevation. There were also moments of Effort drive expression where the Action drive was used. There was a Press through the Vertical dimension using Direct space, Strong weight and Sustained time. The pressing motion tended to move into the low space (which is a spatial affinity for Strong weight effort), while the reaching movement tended to extend across

the body. This was one of the only times that Strong weight was used throughout the exploration. The Phrasing of the movement was typically Swing phrasing which stayed closely linked to the musical choice. There were also short moments of Even phrasing as well towards the beginning of the exploration when there was less locomotor movement and less spatial pathway.

The movement themes that stood out were themes of reaching across the body with a theme of Cross-lateral connection, even extending from the reaching arm to the same leg reaching at the end of the diagonal. This theme connects the movement through body connections, Shape expression and movement through the Spatial Planes. Another theme is that of Flow expression, especially Bound flow and less expression of Strong weight or Time efforts.

APPENDIX H

LMA: INTERVIEW #3 (Participant 3)

This movement exploration held a Vertical spatial stress in stillness. While in movement there was more of a focus of Sagittal spatial stress with movements moving forward and back from the center. The breath was even and seemed deep, although it is difficult to tell in video. There was a strong sense of Head-Tail connection throughout the exploration, as the mover moved mostly with active limbs and a held torso. Movements initiated from the lower limbs, mostly at the proximal joints or mid limb initiation. Similarly, there were also many moments of initiation from the arms with proximal and mid limb initiation. Movements were Sequential in nature, with some moments of Simultaneous movement where both arms would move at the same time. Throughout the first part of the exploration, there was a strong focus on the lower body with an expression of the integration between the Heel Coccyx and Thigh Pelvis connections. The mover held a theme of Weight Shifting, with many movements emerging from this deep shifting of weight from foot to foot. The lower body seemed to carry the upper body from this strong base, allowing for more expressivity there.

From an Effort perspective, there was a salient theme of Mobile state as expressed with Sustained time and Bound flow. With the binding of Flow, there was a feeling of control and precision throughout. At times, the Effort expression of time would become so Sustained that there was a feeling of losing time effort altogether and moving into the Spell drive. As the arms engaged more into the movement, there were also moments where Direct space was included into the Sustained time and Bound flow, moving into Vision drive. These moments held a feeling of deep focus, from Direct space effort as well as the direct gaze of the mover towards her destination in space. There was less expression of Weight effort during this exploration, with small moments at both ends of the continuum. As the mover would engage in the deepest expression of a bend in her knees and fold in her thighs, she would engage in diminished Strong weight. At the opposite end, when she would extend her fingertips at the top of an arc of the arm, she would engage with Light weight effort. Both of these expressions of weight connected to their Space affinities of the high and low space in the kinesphere. One moment during part two also stood out as the mover balanced on one foot. At this point, there seemed to be a letting go of Space and Time efforts and a minimal engagement of flow fluctuations. The focusing on the core and the body to balance, seemed to cause a momentary lull in Effort expression. The Phrasing remained fairly Even with some moments of Impactive phrasing as exhibited by a moment of Quick time at the end of a movement phrase. Also, some movement phrases seemed to accelerate in their pace, showing a sense of Crescendo phrasing.

There was very little Shape Flow expression during this movement exploration. The largest theme of Shape expression was Directional. The arms moved with Directional arc like movements and Directional spoke like movements. The legs showed more Directional spoke like movements. During part three, there were several brief moments of Shaping, where the mover began to engage the torso in more three-dimensional movements. At one point, there was a rotating of the torso around vertical axis with mid-limb initiation and Shaping movements that started with the elbows and carved towards the center of the body. There was also moments of rolling through the torso in a Successive undulating with reflection in the arms. This predominant theme of Directional movements exhibits a theme of bridging into the environment, from self to other or inner to outer.

The use of Space was a dominant theme. There was a use of mid and far reach space with the limbs, and many moments of extension into the far reach space of the kinesphere. Throughout the movement, there was a strong sense of the Vertical axis, with moments rotating around this central dimension or returning to Place Center. Secondly there was a focus on Planal movement, especially in the Sagittal plane, with the Vertical plane as a secondary choice. There were brief moments of moving into the Horizontal plane, but only as a transition to shift into the Sagittal plane from other spatial forms. The lower body seemed to show clear shifts of weight while the upper body explored points of the Planes. There were also rare moments of transverse movement between the planes. These moments seem to emerge as transition to another spatial plane, often moving the body to Place Center, and then transitioning to the next spatial form. Spatial pathways of the exploration held a central focus, with direct pathways leading from the core. These pathways were initiated by Direct movements with the arms and lower body. There was also a strong sense of Central Spatial tension underlying these pathways of movements.

This movement exploration exhibited several movement themes. The first was a theme of weight shifting in the lower body that carried the upper body in an even way through space. Effort themes were expressions of Sustained time and Bound flow in the Mobile state, with moments of Vision drive and Spell drive. The mover often used quick time to transition. Space felt like an important theme throughout with the use of the Sagittal plane and Vertical plane, transitioning with some Transverse movements and pauses in Place Center. Staying on a grounded center was also a spatial theme, as the mover did not engage in many diagonal movements that would bring the body into suspension off of center. Lastly, there was a theme of central focus with a direct gaze, central pathway and spatial tension. This lent to an overall feeling of groundedness and control in movement.

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