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Dance/Movement Therapy and Autism: A Case Study

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Dance/Movement Therapy and Autism: A Case Study

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Abstract

This thesis explores the development of the therapeutic relationship with a child with autism through dance/movement therapy. The characteristics of Autism Spectrum Disorder effect social interactions, communication, behavior and interests. This means there is difficulty engaging and maintaining reciprocal social interactions, and trouble with receptive and expressive language. The purpose of this study is to describe how movement mirroring in dance/movement therapy affects the development of the therapeutic relationship with a child with autism, through the analysis of the Ways of Seeing approach.

The data collected in this clinical case study consisted of video tapped sessions and Laban Movement Analysis transcriptions of the sessions. The child participated in five dance/movement therapy sessions over five consecutive days. A relationship was created that produced growth for both the child and the dance/movement therapy researcher. This development was described through The Ways of Seeing Technique and Method. The findings are told through a narrative of the sessions through the eyes of the researcher.

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When I didn't have the mental/emotional capacity to worry if this would ever get done,

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Chapter One: Introduction

Rationale for study

The characteristics of Autism Spectrum Disorder (ASD) effect social interactions and communication as well as behavior and interests. This means there is difficulty engaging and maintaining reciprocal social interactions, and trouble with receptive and expressive language (The Autism Program, 2010). These are affected verbally as well as nonverbally. During my internship as a graduate student studying dance/movement therapy (DMT) I worked with children with autism. I witnessed small changes in their behavior, movement, and level of engagement pertaining to the therapeutic relationship that went unnoticed by other staff. Observing and describing this growth in and toward a relationship while using DMT became a goal of mine for the purpose of this thesis.

People with ASD have been described as feeling isolated and trapped in their own world of bodily sensations (Tustin, 1990). Children with autism have been described as never experiencing relationship with other human beings and lacking an internalized other, mother, inner witness, or internalized presence (Adler, 2003). Socialization, reciprocal play, and general communication are the goals held by teachers and therapists alike for children with autism. Interventions focused on social skills are essential for children with autism so that they can develop a history of social interaction which will hopefully motivate and reinforce their behavior over time. Without this, their ability to develop close relationships and friendships will be hindered (Koegel & Lazebnik, 2009; Koegel, Vernon, & Koegel, 2009).

DMT facilitates "communication with the most cut-off aspects of the client's self, facilitating awareness of being and becoming alive that gradually enables a

socialization process" (Fischman, 2009, p. 34). Payne (1992) says "moving with the child

has been a well-established technique of DMT, the therapist reflecting the child's

movement by shadowing, echoing, mirroring, and so on" (p. 44). All of these forms of

reflection, known as empathic reflection, are basic DMT interventions that have been

shown to build relationship between client and therapist (Sandel, 1993). Empathic

reflection supports the client's natural expression and reinforces the behaviors, which

bring the client into relationship. Previous studies found that children with ASD who

were mirrored by adults increased the behaviors of socialization and reciprocal play

(Homann, 2010).

    The formal diagnosis for ASD includes impairments in communication such as in

reciprocal social interactions, including impaired use of nonverbal behaviors (e.g., eye

contact, facial expression, and body postures), inability to develop relationships with

peers, lack of spontaneous interaction, and a lack of social or emotional reciprocity

(American Psychiatric Association, 2000; Koegel, Vernon, & Koegel, 2009; Finnigan &

Starr 2011). Even if the client is unable to engage and reciprocate socially or emotionally

with another, as in the case of autism, the therapist must find a way to socially or

emotionally correspond with the client. The dance/movement therapist can do this

nonverbally by mirroring and attuning to the physical presence of the client. This case

study will examine the specific matching interventions used by the therapist and the

responses these interventions elicit from the client.

    When looking for a clear definition of mirroring, Suzi Tortora's book *The*

Dancing Dialogue (2006) was suggested to me, primarily because of her focus on using

DMT with children. Upon further investigation I found, not only a definition for

mirroring, but also a complete description of the therapeutic process, which she calls the

Ways of Seeing technique (see appendix A), as well as stages that describe the outcomes

of therapy, called the Ways of Seeing method (see appendix A). Tracking the

development of the therapeutic relationship with clients diagnosed with ASD has proved

difficult without a model. In general psychotherapy theory there are models that address

the therapeutic relationship with typically developed individuals, primarily adults. The

Ways of Seeing is a psychotherapeutic technique that utilizes nonverbal movement

analysis, dance, movement, and play for the purposes of assessment and intervention in

the development of relationship (Tortora, 2006). The Ways of Seeing was developed by

Suzi Tortora, a dance/movement therapist, and "uses implicit ways of knowing,

nonverbal exchange and body movement-oriented experiences as primary modes to

gather information and communicate" (Tortora, 2010, p. 38). The Ways of Seeing

technique's primary population of focus is children. The technique also describes a

dynamic framework that outlines the intentions of the therapist and the stages of

development of the therapeutic process. It gives descriptions of the cause and effect

relationship between step-by-step therapeutic interventions as well as a developmental

progression of treatment for the client (Tortora, 2006). Because both theories are rooted

in DMT as well as Tortora's general approach proposed in the book focused primarily on

children I found the Ways of Seeing appropriate for the population I chose for this study,

a child with autism.

Furthermore, I chose to use the method of a clinical case study because of its

natural flexibility for describing something so elusive as a relationship. A clinical case

study helps to explain the effects of DMT methods and particular interventions within

complex real-life situations, with variables that cannot be controlled, as they would be in

an experiment. I was aware that without verbal confirmation from the client as to whether

a relationship had developed, describing the outcomes of the intervention could take

many forms. For this reason, I wanted to form this study as a situation for discovery for

whatever was to take place, instead of investigating a specific hypothesis.

Purpose for study

The purpose of this study is to describe how movement mirroring in

dance/movement therapy affects the development of the therapeutic relationship with a

child with autism. The research questions this case study will answer are: 1.) How does

dance/movement therapy facilitate the development of the therapeutic relationship

between a therapist and a child with autism?; 2.) Can and how does the Ways of Seeing

technique help to show the development of the therapeutic relationship?; and 3.) How

does this therapist's use of movement mirroring (as defined in the Ways of Seeing Match

approach) further the development of the relationship?

The method used for this study was clinical case study. I was involved as the

researcher as well as the therapist. Due to the nature of the study, in that the relationship

was the central determining factor, participating was important for the evaluation of the

data. In addition, because of the dual role, the sessions were video taped and reviewed

after for data collection. The research site was a small day school for children with

disabilities in a mid sized Midwestern city. The special education teacher and principal

selected Jose, an eleven-year-old boy. The qualifications for selection were a formal

diagnosis of Autism Spectrum Disorder (ASD) and difficulty engageing in relationship.

The research was conducted over one week in five forty-five minute sessions. I

acknowledge that one week is a limited amount of time to investigate the effects of clinical interventions that address the client's main impairments and that this is a limitation effecting the study's findings.

As the researcher and therapist my theoretical orientation for the purpose of this study is dance/movement therapy and the Ways of Seeing technique. With the treatment goal of increasing time spent in relationship with me, the sessions involved activities initiated by Jose, allowing for the opportunity for me to match, attune and mirror his movements. The dance/movement therapy sessions followed normal therapeutic procedures, whereby I allowed Jose to initiate verbal and nonverbal conversations and dictate the engagement with general movement, dance, play, props and music. The treatment goal for Jose was to develop a therapeutic relationship with the therapist by means of nonverbal communication. This was done by the use of Tortora's (2006) stage of matching, which includes attunement and mirroring, to describe the relationship between the interventions and Jose's movement patterns and changes.

Chapter Two: Literature Review

An important part of this study is determining what relationship is, so that when one has developed it can be viewed as such. It is common knowledge that those diagnosed with autism spectrum disorder (ASD) have difficulty engaging in relationship (Koegel, Vernon, & Koegel, 2009; Finnigan & Starr 2011). Yet those having experience with individuals with autism can describe moments of relationship as well as behaviors that signify the individual is aware of the other. This in a sense is a relationship. So in order to understand an atypical relationship and the development thereof, we need to look at the typical development of relationship. For that, as the literature suggests, the first experience of relationship we all have is considered the most important one, that between infant and mother.

In *The Expression of Emotion in Man and Animals* (1872), Darwin proposed that the movements of expression in the face and body serve the biological purpose of communication between the mother and infant. Hall (1976) introduced the concept of movement as the first "extension system" and thus a first form of communication. This idea parallels Darwin's in that the movement of facial muscles that exhibit the facial expression of affect and thus emotion is a basic way to communicate, especially for one who has no verbal capacity. As an evolutionarily minded scientist Darwin saw this way of communicating as a survival necessity. If the child, with no verbal capacity, must tell its mother it is hungry, the child must use its movements to get this point across, because that is all it has. This is where the other side of the dyad comes in. The mother, who has the capacity for language, but is not receiving verbal information, must be able to read the language of movement the child is using to make sure the child survives and does not

starve. In this way, it is evolutionarily imperative that the mother understands the language of movement of her child through her own capacity for movement as expression, which she already has developed. Darwin stated this, knowing that the ability to express in movement as well as understand movement is an evolutionary ability humans have developed. In the following sections various theories that contribute to the understanding of these abilities will be discussed, including attachment theory, regulation theory, the brain as experience dependent, affect synchrony, right brain to right brain communication, intersubjectivity, and the mirror neuron system. Although collectively these theories may not be a comprehensive explanation, what are covered are the most relevant to this study. My investigation began with the broad theory of attachment because it addresses the mother-child relationship which is intended to form a bond for the child's survival and is discussed in the literature as the foundation for all other relationships. I then found that more detailed theories of relationship and the brain structures that make this possible needed to be investigated in order to fully understand attachment.

Attachment Theory

A more recent theory that expanded upon Darwin's original discovery is Attachment Theory, which is the dominant theory of human ontogeny in developmental psychology created by John Bowlby. The following is a brief discussion of his book *Attachment* (1969)*, which is his most pertinent work to this study. In this book he begins by laying groundwork for his theory in discussing evolutionary processes that have led to our current ability for attachment (Bowlby, 1969). Bowlby states that organisms at different levels of the phylogenetic scale use their instinctive behaviors in specific ways,

ranging from primitive reflexes to complex plans with subgoals (Bowlby, 1969).

Complex organisms can goal-correct their instincts with adjustments to their behaviors.

Grouped together, these reflexes and behavioral plans are considered complex behavioral

systems, and, depending on the situation, specific reflexes and patterns of behavior will

play out (Bretherton, 1992). Bowlby's view is that the ultimate function of these behavior

systems, which control attachment, parenting, mating, feeding, and exploration, are for

survival and procreation (Bowlby, 1969). These complex behavioral systems rely on

foresight, which evolves into an ability to "construct internal working models of the

environment and of their own actions in it" (Bretherton, 1992, p. 760). For mammals

these behavioral systems are organized during periods of sensitive development,

primarily in the first year of life.

After laying the groundwork in a behavioralist view, Bowlby then applied the

concept of behavioral systems to the mother-infant attachment. Bowlby defines

attachment behaviors as behavior "that has proximity to an attachment figure," has "a

predictable outcome and whose evolutionary function is protection of the infant from

danger" (Bretherton, 1992, p. 766). He points out that these behaviors are directed toward

any possible caregiver at first, but over time become focused toward those who are most

responsive and engage in social interaction with the child (Bretherton, 1992). When the

infant becomes more mobile the attachment figure becomes a safe base, which the infant

can approach for safety and reassurance (Ainsworth, 1967). The quality of social

interaction, especially the attachment figure's sensitivity to the infant's signals,

determines the effectiveness of the attachment figure (Bretherton, 1992).

Mary Ainsworth, who worked with Bowlby for a period of time, is also seen as a major contributor to the field of Attachment Theory. This is particularly due to her extensive research, such as the Baltimore Project and Strange Situation. Her first major research study was called the Ganda Project (Ainsworth, 1963, 1967) where she studied women from Uganda and their children. A significant discovery from this was that the secure attachment was significantly correlated with maternal sensitivity (Bretherton, 1992). Mothers who enjoyed breastfeeding also correlated with infant security (Bretherton, 1992). After the Ganda Project she reorganized her study to follow 26 families in what was called the Baltimore Project (Ainsworth & Bell, 1970; Bell & Ainsworth, 1972), out of which came the Strange Situation Study. The Baltimore Project followed the families from birth for 54 weeks. She found that the mother's sensitivity in the first quarter was associated with harmonious mother-infant relationships in the fourth quarter. "Babies whose mothers had been highly responsive to crying during the early months now tended to cry less, relying for communication on facial expressions, gestures, and vocalizations" (Bell & Ainsworth, 1972). From here the Strange Situation was designed to determine the child's reactions to the mother leaving the room, a stranger entering, and how the infant reacts when the mother reappears. Ainsworth "found that infants explored the playroom and toys more vigorously in the presence of their mothers than after a stranger entered or while the mother was absent" (Ainsworth & Bell, 1970).

Ainsworth then directed her attention to the reunion behaviors of the child towards the mother. Some of the infants cried and wanted contact when the mother reappeared but did not settle down when held. Another group of infants seemed to avoid their mother after the reunion event though they had searched for her when she was gone. After

reviewing these infants' data collected from the beginning of the Baltimore Project, it was found that the infants who were ambivalent or avoidant when the mother reappeared had less harmonious relationships with the mother during the home visits in comparison to those who reapproached the mother upon her return. From this study she identified three forms of attachment that a child has with its mother, which are secure, anxious and avoidant (Ainsworth Blehar, Waters, & Wass, 1978). A secure attachment is one in which a child balances closeness and autonomy and has positive expectations about the availability and sensitive nature of the mother. An anxious attachment is one where the child chronically lacks confidence in the mother's ability to respond and pursues closeness and reassurance from the mother. Finally, the avoidant attachment is where the child needs emotional and physical closeness and is self-reliant on the caregiver (Obegi, 2008).

For the purposes of this thesis, it is important to note that Bowlby and Ainsworth argued that all people seek to establish an affective tie, or attachment, with a specific other to meet needs for physical and psychological security (Ainsworth et al., 1978; Bowlby, 1988). Once the attachment is formed it becomes a stable relationship (Obegi, 2008). How this relates to the continuation of a person's capacity and pattern of relationships later in life is what Beebe and Lachmann (2002) call "patterns of expectations," which develop out of the mother's pattern of interaction with the child. After repeated interactions with the caregiver, the child creates an inner sense of confidence in the attachment figure's ability to protect him or her, which becomes encoded and enables exploration (Obegi, 2008). This mutual understanding is referred to as the caregiver being a secure base (Ainsworth, 1967).

It can be assumed, then, that attachment is an important part, if not the most important part, of what develops and thus determines the relationship. Very recently, ideas about what is actually happening that makes the attachment possible have changed. The leader of these changes is Allan Schore, who proposes that attachment theory is actually a regulation theory (Schore, 1996, 2000, 2001a, 2001b, 2003a, 2003b, 2005; Schore & Schore, 2008). To understand regulation and regulation theory we must first address emotion and affect.

Emotion and Affect

Disentangling affect, emotions, and feelings is another task entirely, but in the following section the most applicable definitions about emotion and affect will be discussed. Affective neuroscientists discuss feelings as subjective interpretations of somatic cues, while emotions are seen as being physiologically based (Damasio, 1994, 1999; Schore, 2003a, 2003b). Emotions are expressions of biological regulation (Damasio, 1998) and are the "highest order of direct expression of bioregulation in complex organisms" (Damasio, 1998, p. 84). Affect is "the way an internal emotional state is externally revealed" (Siegel, 1999, p. 128). Affect is the physical appearance of emotions, or what the face does in association to what that person is feeling when experiencing an emotion. Reite and Capitanio (1985) conceptualize affect as "a manifestation of underlying modulating or motivational systems subserving or facilitating social attachments" (p. 248). It seems that neuroscience literature has extended the psychological and psychiatric definition from being the appearance of emotion in an individual to something that is reliant on a relationship. In the realm of neuroscience, affect is defined as "prototypical whole-organism events," and "prototypical two-

organism, self-other event" (Fischman, 2009, p. 35). Stroufe (1996) states that

interactions between a mother and child are "dyadic regulations of emotions" because

each member is utilizing the same affective state along the continuum of the arousal

systems (the autonomic and central nervous systems) (Schore, 2001b, p. 21). From this

we can deduce that affect is the expression of emotions and emotions are expressions of

regulation. To investigate this further the next section will explain regulation.

Regulation and Regulation Theory

Regulation in this situation is defined by what is being regulated. For our

purposes we will discuss regulation of the body and emotion. As Stroufe (1996) states,

emotions come from the interplay of the central nervous system (CNS) and the

autonomic nervous system (ANS), which includes the parasympathetic and sympathetic

nervous systems (NS). Since emotion comes from regulation, regulation of the body

involves these systems as well. Body regulation is a balance of the sympathetic and

parasympathetic branches of the ANS (Badenbock, 2008). As Siegel (1999) describes,

the sympathetic NS is like the accelerator of a car, while the parasympathetic NS is the

brakes. When the body is disregulated one system takes over and we have to find our way

back to a balance of both complementary systems. Schore (2001) believes that the

"maintenance of a harmonious equilibrium" is important for the survival of the

individual, which is faced with constant changes of stressors, internal and external (p.

14). Autonomic, somatic aspects of stress response and emotional states are regulated by

the "energy-expending" sympathetic and "energy-conserving" parasympathetic parts of

the ANS (Schore, 2001). Recently the CNS has been given more attention in regards to

its role in coping capacities. This is because the CNS is an "emotion-processing system

[that] is specialized to appraise social information from facial expressions implicitly"

(Schore, 2001, p. 15).

Regulation of the body is expressed externally as affect through the individual's

experience of emotion. Badenboch (2008) and Porges (1997) allude to the relation of

body and emotional regulation. Regulation of emotion is a balance of emotional states.

When disregulated emotionally we may feel extreme and sudden mood swings as we are

taken over and flooded with an emotion. To regulate from this place means rebalancing

our emotional state. (Badenboch, 2008). "When we mindfully attend to our state [of

emotion], we can sense the movement of emotion through both our subjective state and

the flow of energy in our body" (Badenboch, 2008, p. 30). As Porges (1997, p. 65) states;

> Emotion depends on the communication between the autonomic nervous system
>
> and the brain; visceral afferents convey information on physiological state to the
>
> brain and are critical to the sensory or psychological experience of emotion.

This regulation of body and affect states occurs in the right hemisphere of the brain, the

CNS, ANS and parasympathetic and sympathetic NS. The right hemisphere of the brain

also processes social and emotional information, facilitates attachment functions, and

helps the person cope with stress (Schore, 2000, 2001a, 2001b, 2005; Schore & Schore,

2008; Siegel, 1999). "In this way, regulation of the body and of emotion goes hand in

hand" (Badenboch, 2008, p. 30).

Experience Dependency

The right hemisphere of the brain is known as experience-dependent (Siegel, 1999;

Berrol, 2006). This means that brain needs specific experiences for its development. In

order for a person to develop the functions of the right hemisphere of the brain

(processing social and emotional information, facilitating attachment functions, and coping with stress), that person has to receive social and emotional information and attachment (particularly in assisted regulation from stress stimuli) in an attachment relationship. A recent conception of development uses the Transactional Model, which explains development and brain organization as "a process of transaction between (a) genetically coded programs for the formation of structures and connections among structures and (b) environmental influence" (Fox, Calkins, & Bell, 1994, p. 681). This is nature and nurture. This model has led to a conclusion among developmental neuroscientists that the brain is a "bioenvironmental or biosocial organ" (Gibson, 1996 as cited in Schore, 2001b) and thus a 'social brain' (Brothers, 1990).

From here we understand Darwin's theory of emotional expression as a function of survival and thus as an evolutionary adaptation based on our phylogenetic development. The child, until around the age of three (in normal developing circumstances) is unable to self-regulate, because the needed neurobiological structures and their functions are not fully developed yet. The reason they have not developed is due to the need for a small head (and thus brain) in order to pass through the birth canal. So, the child is born with a brain that has not fully developed and does the continued growing outside the womb. It is interesting to note that if born with a fully developed brain (and not being experience dependent) we may assume that the child would be able to self-regulate immediately upon birth. For the survival of the child, the dyad needs to form a bond, so that the mother stays with, protects, and provides for the child until he or she can care for his or her self. The "social brain" is thus an evolutionary adaptation, shaped by natural selection because "being social enhances survival" (Cozolino, 2006, p. 13). This "being social" is

explained by the theories previously covered, attachment and regulation theory, and can now be understood further when looking at the relationship of mother and child. In order for the child to learn how to regulate his or her body and emotional state, the child needs to learn from the mother.

This means that for optimal development the biologically predispositioned brain needs social interaction in order for some functions to develop (Schore & Schore, 2008). This is what Bowlby (1969) was initially looking for, how development is aided or influenced by the mother's interaction, which he called attachment. Schore (1996, 2000, 2001a, 2001b, 2003a, 2003b, 2005; Schore & Schore, 2008) calls it regulation. He thinks that an attachment between a mother and a child is actually a process of regulation, where each informs and assists the regulation of the other.

This concept of the brain being experience-dependent (Schore, 1996, 2001) means that attachment, according to Schore & Schore (2008), is the outcome of the child's "genetically encoded biological predisposition" and the environment, specifically the caregiver. Again, this is nature and nurture. They say that this combination collectively represents the "regulation of biological synchronicity between and within organisms" (Schore & Schore, 2008 pp. 11). Attachment, and thus regulation, involves nonconscious implicit interactive regulation, which underlies all human survival functions (Schore 2003a, 2003b). Fundamentally, attachment is the evolutionary mechanism of how we are "sociophysiologically" connected to others (Adler, 2002).

How is this done? If we remember, affect is the expression of emotion, emotion is expression of biological regulation, and regulation is the balance of the autonomic

nervous system. Biological regulation occurs in the attachment relationship that can now be understood as a dyadic emotional regulation event.

Affect Synchrony

Affect synchrony is Schore's term for how the environment (mother) and the child come to a common state of regulation, making a pattern of and for interaction. It is partly emotional communication and partly adjustment of one person's social attention, stimulation and accelerating arousal based on the other's response (Schore, 2001b). Each partner learns the rhythmic structure of the other (their partner's biological rhythms) (Lester, Hoffman & Brazelton, 1985) and then modifies his or her behavior to fit that structure.

Schore (2001b) describes affect synchrony as an "organized dialogue of visual and auditory signals" that is exchanged at a very rapid pace, and that first happens in social play for the child (p. 18). They are "cyclic oscillations between states of attention and inattention" in each side of the dyad (Schore, 2001b, p. 18). Both partners are matching the state of the other and then adjusting their own attention, stimulation, and arousal (Schore, 2001b). The mother literally shows the child his or her own current state and then changes it to another, bringing them from an end of the continuum (disregulation) to the middle (regulation). The importance of affect synchrony is that when it occurs the mother and infant actually "recreate an inner psychophysiological state similar to their partner's" (Schore, 2001b, p. 19), which enables the child to self-regulate. The infant learns through this dialogue to anticipate a response from the other (Stern, 1983). Schore (2001b) continues to state that when the two are involved in affect synchrony they create a "context of resonance" (p. 23). Resonance, Schore says, refers to

the ability of neurons to respond selectively to inputs at preferred frequencies (Schore, 2001b). Resonance plays a role in "brain organization, CNS regulatory processes, and the organization of connectivity properties that are tuned by function" (Salansky, Fedotchex, & Bondar, 1998, p. 401). Schore also cites Feldman et. al. (1999) in their use of synchronicity as the matching of the mother's and infant's activities "that promote positive play" (p. 32). According to Lester, Hoffman & Brazelton (1985), synchrony happens as a result of learning a partner's rhythmic structure and changing his or her own behavior to fit that structure. This back and forth process Schore calls "contingent responsivity" which includes engagement, disengagement, and reengagement (2001b). Explanations of the parts of the brain that are responsible for synchrony are beyond the scope of this literature review, but are clearly described by Siegel (1999).

Right-Brain to Right-Brain Communication

As mentioned earlier, the right brain houses the mechanisms for body and affect regulation, as well as social and emotional information, attachment functions, and the capacity for coping with stress. The right hemisphere of the brain is where we understand others and develop the understanding of relationship between the self and the world (Feinberg and Keenan, 2005). A number of studies are showing that the right limbic areas of the brain are involved with the "formation of social bonds" and "part of the circuitry supporting human social networks" (Allman, Watson, Tetreault & Hakeem. 2005, p. 367). Important in this discovery is that this part of the brain is also responsible for the regulation of automatic functions, like heartbeat and breathing (Schore & Schore, 2008), so the two seemingly separate functions of the brain are more related than previously thought. These parts of the brain, and their functions, allow for two additional functions

that each help us understand the other - implicit processing, and intersubjectivity.

Implicit processing occurs through body-to-body dialogue. It is the quick and automatic handling of non-verbal information, such as affect, so that we can categorize information in order to make decisions quickly (Stern, 2010). The process is automatic, repeats, and is outside of our attention and verbal experience (Lyons-Ruth, 1998).

Intersubjectivity occurs in the right brain because this part is concerned with subjective emotional experience and communication, such as implicit signals of affect (Schore, 1996; Decety & Chaminade, 2003), which are read and produced by both sides of a dyad. These processes are what make up intersubjectivity. According to Stern et al. (1998) the right brain increases the "implicit relational knowledge," which is all nonverbal. "Implicit right brain-to-right brain intersubjective transactions lie at the core of the therapeutic relationship" (Schore & Schore, 2008, p. 14). Auditory and visual cues are the types of information that the right brain reads. Facial expressions and postural changes are implicit communications, which help us to understand changing emotions in others (Bucci, 2002; Schore & Schore, 2008). As Berrol explains, "matching of the other's behavior may be represented by qualitative elements of intensity, duration, spatial shape, tempo and/or rhythmic pattern" of movement, which can be described through Laban's (1947, 1956, 1960, 1966, 1975) system of Effort/Shape (Berrol 2006, p. 309). In addition, speech patterns such as melody and intonation are perceived, which all involve the right hemisphere of the brain (Bogolepova and Malofeeva 2001; Shore & Schore, 2008; Trevarthen, 1990). These visual and auditory emotional communications occur within synchronized face-to-face communication, and are experienced by both sides of the dyad as they change their arousal states together (Schore & Schore, 2008; Schore,

2001). Another way to think about the communication to and from the right brain is that it is comparable to the left-brain sending and receiving verbal communication (Schore, 2003b). The mother also has similar processing capacities located in the right brain that allow for monitoring of the child (Bourne and Todd, 2004).

The Mirror Neuron System

So how do things like intersubjectivity and implicit processing actually happen? How is the person looking at the other able to imitate and feel in order to understand what the other is doing? How does the one member of the dyad match the arousal state of the other? The process of seeing, understanding and recreating a mirrored image of what we are seeing lies in the mirror neuron system. This is relatively new science that is exciting, because we can actually trace the process within our brains that we can feel when done with attention.

Mirror neurons were discovered in monkeys not long ago. The scientists found that certain parts of the brain were activated when the monkeys watched another perform an action. Then they found that the same parts of the brain were activated in a similar way when the monkeys performed the action themselves. Because we are phylogenetically similar to monkeys we have the same things happening in our brains when we see and do an action. How this translates to humans is that the premotor and parietal areas, which are the correlates to those in monkeys that house mirror neurons, are activated when observing actions (Gallese, Eagle & Migone, 2005). In addition, cortical regions in the premotor and posterior parietal cortices are activated in humans when observing and executing mouth, hand, and foot related actions (Buccino et al. 2001).

There is extensive literature describing how body states are recreated in a person when they are observed in another (Bavelas, Black, Lemery, & Mullet, 1986; Gallese, 2005; Iacoboni, 2008; Keysers et al., 2003; Rizzolatti, Fogassi, & Gallese, 2001), and how felt bodily states produce affective experiences in others (Duclos et al., 1989; Riskind, 1984; Riskind & Gotay, 1982). Gallese et al, (2005) are leading researchers in the field of neuroscience looking at the mirror neuron system. They propose a hypothesis of the importance of the mirror neuron system that is clear and concise. I chose to use this hypothesis for this study because of its clarity but also how it relates to DMT in its correlation between the mirror neuron system and movement.

This hypothesis states that "body-related experiential knowledge enables a direct grasping of the sense of the action performed by other, and of the emotions and sensations they experience" (Gallese et al. 2005, p. 143). From this he suggests a state called "intentional attunement" which produces in the observer a sense of familiarity with what the mover is doing. This is done through "embodied simulation," where our brain/body system internally models the action that is observed. Therefore, we not only "see" what others are doing; we actually have a sense of the action, emotions, and sensations, as if we are doing them ourselves. (Gallese et al. 2005 p. 144-145). In the following section neurological and mirror neuron studies will be discussed that have covered four areas of perception of others. They are, action, emotion, intention and sensation perception.

In recent action perception studies it was found that mirror neurons underpin monkeys' social facial communication and are used to optimize their social interaction (Gallese et al. 2005 p. 133). Ferrari et al. (2003) found that mirror neurons associated

with the mouth were activated in monkeys as they observed "intransitive, communicative facial actions" (p. 964). In addition, what was discovered was that the goal of an action is specifically tied to the mirror neuron that fires. This was discovered because the same mirror neuron was activated when the participant not only performed the action but also observed the same action in another (Escola et al. 2004). In these studies, the mirror neurons observed were found to code the goal of the act in spite of what is needed in movement to accomplish it (Escola et al. 2004). Umilta et al. (2001) found that mirror neurons activate even when part of the observed action is hidden from view, suggesting that action intent is assumed with only partial information. Not only have mirror neurons been observed during motor action, but also when a monkey hears the sound produced by the action (Kohler et al. 2002). Another recent study showed that pigtailed macaque monkeys knew when they were being imitated (Paukner, Anderson, Borelli, Visalberghi, Ferrari, 2005).

In an action intention focused study, Iacoboni et al. (2005) found that "actions embedded in contexts" (p. 532) produced increased activation in brain regions where the actions are represented. Gallese et al. (2005) states that from this study we can see that brain regions involved in action and observation are also involved in how we understand "why" the action is occurring.

Emotion perception of another is reliant upon the sensorimotor system (Adolphs 2003; Adolphs, Damasio, Tranel, Cooper, Damasio 2000) because this system helps to reconstruct the feeling of the emotion by simulating the body state related to what is perceived (Damasio, 1994, 1999). Wicker et al. (2003) discovered that a person experiencing, observing, and mimicking the facial expression of disgust, showed

activation in the same neural structures of the brain. An interesting new study has given

evidence that there are two similar processes that happen when observing action as well

as observing emotion in facial expressions. Just as muscles needed to do an action are

stimulated but not activated when observing action that involves the same muscles, this

happens with expression of emotions. The same facial muscles are stimulated as those

that are activated in the person they are watching (Dimberg 1982; Dimberg and Thenberg

1998; Dimberg, Thenberg, and Elmehed 2000).

Sensation perception has been shown in studies where the same neural structures

are activated when the participant was touched and observed someone being touched

(Keysers et al. 2004; Blakemore, Bristow, Bird, Firth, & Ward 2005). It was later

discovered that the only way an individual is able to distinguish who is being touched is

by the degree of activation of the brain regions that are activated in both scenarios

(Blackmore et al. 2005).

All of these studies touch on the concept of shared neural networks or shared

neural firings and as Meltzoff & Moore (1997) show, this is connected to automatic

embodied simulation that is present nearly from birth. As Reddy, Hay, Murray &

Trevarthen (1997) suggest, this could prove to be a neurological basis for the

"intersubjective process" or "intersubjectivity" that helps the mother and infant

synchronize and over time develop their relationship. So how do these theories relate to

this study?

Autism Spectrum Disorder

Emotions, affect, attachment, regulation, and the processes that make them

happen have been discussed in this review. To apply that discussion to the population of

ASD, brings to light what makes this disorder such a mystery. Age three is the first year

when someone can be diagnosed with ASD, which is past the developmental stage where

emotion and affect regulation develop, and past the development of autonomy and sense

of self. These abilities are missing for someone with ASD and it is not clear whether they

have developed at all. Following is a description of ASD, what it looks like, and how it is

described in a diagnostic way.

The characteristic deficits of autism that is most relevant to this research effect

social interactions and communication, as well as behavior and interests. The formal

diagnosis for autism spectrum disorder includes an inability to develop relationships with

peers, lack of spontaneous interaction, lack of social or emotional reciprocity, and

impairments in communication (Koegel, Vernon, & Koegel, 2009; Finnigan & Starr

2011). Impaired communication means difficulty expressing verbally and nonverbally

but it is also the reciprocal aspect of social interactions. These include reading,

understanding, and expressing nonverbal behaviors, such as eye contact, facial

expression, and body postures (Koegel, Vernon, & Koegel, 2009; Finnigan & Starr

2011).

People with autism are have difficulty understanding others' intentions, the

meaning of their actions, and the emotions they express (Dawson et al. 2002). Mirror

neuron activation, which should occur during the observation of others' actions, does not

occur in individuals with ASD (Gallese, 2006). Gallese (2006) hypothesizes that the

reason for this is because individuals with ASD have an inability for intersubjective

empathy due to defects of embodied simulation, which is typically produced by the

mirror neuron system. The simulation deficits extend to those of action (Theoret et al.

2005; Oberman et al. 2005), emotion (Snow, Hertzig, & Shapiro 1988; Yirmiya et al.

1989; Hobson 1989, 1993a, b; Hobson, Ouston & Lee 1988, 1989), and affect (Rogers

1999; Williams, Williams et al. 2004; McIntosh et al. 2006; Dapretto et al. 2006).

People with autism have been described as feeling isolated and trapped in their

own world of bodily sensations (Tustin, 1990). Autistic children have been described as

never experiencing relationships with other human beings or having an internalized other,

mother, inner witness or presence (Adler, 2003). Socialization, reciprocal play and

general communication, pervade the goals for children with ASD held by teachers and

therapists alike. Social skill focused interventions are essential for children with ASD so

that they can develop a history of social interaction to motivate and reinforce the behavior

over time (Koegel & Lazebnik, 2009; Koegel, Vernon, & Koegel, 2009). Without this,

their ability to develop close relationships and friendships will be hindered (Koegel &

Lazebnik, 2009; Koegel, Vernon, & Koegel, 2009).

If a client is unable to engage and reciprocate socially or emotionally with

another, as in the case of autism, the therapist must still find a way to socially or

emotionally correspond with the client. The dance/movement therapist can do this sort of

matching non-verbally by mirroring and attuning to the physical presence of the client.

Dance/Movement Therapy

Dance/movement therapy (DMT) focuses on the movement of the body as a way

to express, communicate, and understand self and other (Fraenkel, 1983; Fischmann,

2009; Homman, 2010; Parteli, 1995; Tropea, 2009). This pertains to the client as well as

the therapist. As Fischmann (2009) states, "human movement patterns involve emotional

tonalities that have intrinsic meaning" (p. 35). By engaging the client in relational

experiences and expressive communication (Homman, 2010) through nonverbal

interaction the therapist can become a part of the client's world. As clients focus on their

physical experience, the therapist uses their own body to help gain more information

about the client's experience, both what is explicit and what is implicit (Homman, 2010).

With the aid of the aforementioned interpersonal functions (attachment,

regulation, and the mirror neuron system) the therapist uses his/her body's experience of

witnessing the other to obtain somatic information about what he/she is seeing in the

client. This process is part of the method called empathic reflection, which is used

extensively by dance/movement therapists (Sandel, 1993). Empathic reflection is a

dynamic process that involves reading the client, responding to, and then re-reading as a

way to track changes and support growth for the client (Sandel, 1993). Empathic

reflection is not considered an intervention but an overall way of engaging in the

therapeutic relationship (Sandel, 1993). One specific intervention that falls under

empathic reflection is mirroring. The intervention of mirroring is seen as a staple of the

therapeutic relationship (Payne, 1992). Both empathic reflection and mirroring are

discussed within the literature in a complicated manner that leaves them elusive, with

definitions strangely out of reach. Occasionally the terms are used synonymously

(Sandel, 1993). Although empathic reflection is the overarching concept, mirroring is the

primary focus of this thesis.

Some of the terms used when discussing mirroring are reflecting, echoing,

attuning, simulation, imitation, matching, resonating, tuning in and picking up. Through

describing the purpose, the definitions are implied but lack specificity. The various

purposes, such as to gather information about the client, that have been described are

(Sandel, 1993), attunement (Winters, 2008, Fischman, 2009), creation of an empathic

connection (Winters, 2008; Sandel, 1993; Payne, 1992), development of a movement

dialogue (Payne, 1992), developing trust (Chang & Leventhal, 1995) and promoting the

therapeutic alliance (Chang & Leventhal, 1995; Sandel, 1993). As a developmental

neuroscientists, Iacoboni (2008) says that the purpose of imitation, which can be

understood as mirroring, is to facilitate "embodied intimacy between self and others" (p.

69).

Marian Chace first discussed the intervention that we now consider to be

mirroring and she used the term "picking up" (Sandel, 1993). Due to the fact that she

never published her theory, and only wrote speeches that used informal language, her

students gave names to her techniques. She used the term "picking up," which referred to

the intuitive experience of reflecting the clients' movements in order to understand their

experience (Fischman, 2009). "The concept has been used with reference to the

movement patterns, effort qualities and themes of individuals and groups. It is sometimes

viewed as synonymous with mirroring" (Sandel, 1993, p. 100). Throughout the continued

use of this intervention by dance/movement therapists to date, the term mirroring is now

more widely used than "picking up." Sandel (1993) says that mirroring is "participating

in another's total movement experience, i.e., patterns, qualities, emotional tone, etc." (p.

100) and is a part of the empathic process in the therapeutic relationship.

Fischman (2009), uses the term "echoing" to describe how the therapist mirrors as

a way to meet the "aspects of the self that are disadvantaged, split, or frozen" (p. 40)

within the client. Another description she uses is that through "simulation, imitation,

echoing or using our imagination" therapists match the client's experience (Fischman,

2009). Tropea (2009) says that "entering their world and gently attuning to their

movements" (p. 238) initiates connection in the therapeutic relationship. Chace stressed

how the physical nature of the empathic phenomenon builds the relationship through the

use of mirroring (Sandel, 1993). Whitehouse, another DMT pioneer, used what she called

internal resonating of movement to create empathy when witnessing the client (Fischman,

2009). Chaiklin & Schmais (1993) say that the therapeutic relationship is initiated by

"tuning in to the affective states" of the client and from here a movement dialogue

develops, creating self-awareness and emotional growth for the client. Tortora (2006)

defines mirroring as "a process that involves a therapist literally embodying the exact

shape, form, movement qualities, and feeling tone of another person's actions, as if the

therapist were creating an emotional and physical mirror image" (p. 504). Tortora (2006)

gives a clear definition that is repeatable and descriptive, whereas many of the other

definitions have vague implications allowing various interpretations. For this case study,

Tortora's definition of mirroring along with her Ways of Seeing technique and method

are used as a guide to understand the embodied mirroring during DMT sessions as

described in this thesis which will be described later in detail.

DMT has a long history with working with clients with ASD. Levy (1988) says

that dance/movement therapists' approaches to working with autistic children vary but all

agree that there is a "need to reach these children at their own developmental level, that is

the primitive sensory-motor level" (p. 271). She cites mirroring as one technique

commonly used which "leads to the development of trust and the formation of a

relationship between therapist and child" (p. 271). The work of Janet Adler, specifically

through her case study with Amy which led to the video "Looking at Me" was a

significant contribution to the work of DMT with clients with ASD. Adler's work focused on "the importance of responding empathically to the child, that is, experiencing what the child experiences" (Levy, 1988, p. 221). Levy (1988) summarizes the goals for dance/movement therapists working with children with autism as "establishing contact, trust and rapport," as well as using touch to "define body boundaries," and finally reflecting the "movements, rhythms, and feelings of the autistic child" (p. 222-223).

The Ways of Seeing

The Ways of Seeing approach is a psychotherapeutic, dance/movement therapy technique that utilizes nonverbal movement analysis, dance, movement, and play for the purposes of assessment and intervention for the development of relationship (Tortora, 2006). Developed by Suzi Tortora, a dance/movement therapist, the approach to therapy uses "implicit ways of knowing, nonverbal exchange and body movement-oriented experiences as primary modes to gather information and communicate" (Tortora, 2010, p. 38).

Tortora (2006) describes two processes, the Ways of Seeing technique and the Ways of Seeing method. These correspond, having similar motivations in the stages that the therapist applies for the development of the therapeutic relationship and to further the intent throughout treatment.

The technique describes a dynamic framework that outlines the intentions of the therapist and stages of the development of the therapeutic process. It gives descriptions of the cause and effect relationship between step-by-step therapeutic interventions, as well as a developmental progression of treatment for the client (Tortora, 2006). For the

purpose of this study, I will describe the beginning stage of the technique because it is the stage of intervention which is the focus of this study.

The technique begins with match, which includes attunement and mirroring. Tortora defines attunement as "matching of a particular quality of another person's movement, but not completely depicting the entire shape, form, or rhythmic aspects simultaneously, as in mirroring" (Tortora, 2006, p. 259). Mirroring is defined as "literally embodying the exact shape, form, movement qualities, and feeling tone of a person's actions" (Tortora, 2006, p. 259). The remaining stages of the process are Dialogue, Explore and Expand, and Nonverbal to Verbal Expression.

While the technique is geared toward what the therapist actually does, the method describes theoretically what is happening as the treatment progresses. Tortora describes the Ways of Seeing method, consisting of three stages that describe the co-created relationship. The stages are defined by how the therapist and the client are responding to each other within the therapeutic environment. The first stage is Stimulate, where the intent is to support exploration shown by awareness of presented movement by the client as well as the therapist. The second stage is Activate, where the child takes an active part in the movement experience and the child's movement repertoire expands. The final stage is Mobilize where the actions develop into deeper expressions and the focused expression develops into something new. The child, in this stage, begins to take a leadership role (Tortora, 2006). In this study I applied the intervention of Match (attunement and mirroring) during treatment in order to develop a relationship with the client in hopes of progressing through the stages of Stimulate, Activate, and Mobilize.

Laban Movement Analysis

Laban Movement Analysis (LMA) is used in many fields related to dance and movement but DMT has utilized it as a way to systematically analyze clients' movements in order to make informed interventions based almost solely in movement. The Ways of Seeing relies heavily on this theory as well (Tortora, 2006). Through LMA dance/movement therapists can observe detailed aspects of movement and make correlations between movement patterns and other expressions.

LMA is a collective theory and way of interpreting, describing, visualizing and notating all possibilities of human movement (Moore, 2010). Developed by Rudolf Laban throughout his professional lifespan, and then extended by those who worked with or studied under him, the theory can be divided between four main aspects of movement. These categories, Body, Effort, Shape, and Space, and the concepts that make them up, are applicable to all forms of movement (Hackney, 1998; Laban and Lawrence, 1947; Laban 1956, 1960, 1966, 1975; Moore, 2009, 2010; Preston-Dunlop, 2008). Although developed initially for the purposes of creating a notation system for documenting the art of dance (Preston-Dunlop, 2008), LMA has been used for any instance where detailed description and analysis of movement is needed.

Discussion of the entire theory is beyond the scope of this study. The category most relevant to this thesis is Effort because Effort analysis was primarily used in intervention, data analysis and description. This category consists of the motion factors weight, space, time, and flow (Laban and Lawrence, 1947; Laban, 1956, 1960, 1966, 1975; Moore, 2009, 2010; Preston-Dunlop, 2008; Tortora, 2006). Each of these contains effort qualities that follow a continuum between two opposing fighting and indulging

qualities (Laban and Lawrence, 1947; Laban, 1956, 1960, 1966, 1975; Moore, 2009, 2010). Moore (2010) states that the effort qualities "represent a dynamic process of change, rather than a static state that is maintained" (p. 62). Weight is comprised of increasing and decreasing pressure. Space includes directing in space and indirecting of space. Time contains accelerating and decelerating. Finally, flow is made up of binding and freeing. (Laban, 1947, 1956, 1960, 1966, 1975; Moore, 2009, 2010). As evident, each of the effort qualities is described as a process of change shown in the use of the present participle "-ing."

In this study LMA and especially Effort analysis was used during the sessions as a way to identify qualities of movement that could be mirrored. In data analysis LMA was used to identify the qualities of movement by both the participant and therapist to assess if mirroring had occurred and how it was done. Through LMA a large amount of data was identified which contributed significantly to this study.

Conclusion

The purpose of this literature review was to discuss relevant theories that make relationship possible, the population of focus and therapeutic ways of working to support the development of relationship. A large portion of this literature review discusses theories that, collectively, contribute to the understanding of how optimal relationship development occurs. Collectively the psychoneurobiological theories describe how a person is able to understand the experience of another person they are observing in order to engage in and maintain a relationship. The diagnosis of Autism Spectrum Disorder has been discussed to shed light on this study's focus of the inability to be in relationship. From here, ways of working with someone with ASD were discussed, including the

overall therapeutic approach of dance/movement therapy and the specific intervention of mirroring. The Ways of Seeing furthers this by describing specific interventions and the progression of outcomes from the intervention.

Without a previous study using The Ways of Seeing to analyze the development of the therapeutic relationship through the intervention of mirroring, this study proposes to fill the gap in the form of a clinical case study. This study will provide a detailed narrative of how the intervention of mirroring affects a child with ASD through dance/movement therapy and the Ways of Seeing. This study demonstrates how the Ways of Seeing can be used to analyze the development of the therapeutic relationship as well as describe the effects of the dance/movement therapy intervention of mirroring with a child with ASD.

Chapter Three: Method and Narrative

Introduction

In my past experience using dance/movement therapy (DMT) with children with

Autism Spectrum Disorder (ASD) I found that my primary intervention was mirroring.

This was a discovery throughout my internship and not necessarily a conscious choice. I

worked in a very non-directive way, using improvisation and providing the opportunity

for my clients to explore movement while passing in and out of relationship. Over time I

began to involve props including a stretch band, balloons, bubbles, balls and scarves

throughout our sessions. After following my natural kinesthetic response for mirroring to

help increase the children's time in relationship, I began to see that mirroring is an actual

preference of mine. As a preference, mirroring comes very naturally to me, so often the

usage was less intentional and more automatic. I decided that I wanted to learn more

about mirroring. I wanted to bring more conscious awareness to my movement choice

and start looking closer at the response of clients.

While using mirroring as an intervention during my internship I found that I was

mirroring in different ways, although I was unable to verbally communicate what ways

these were. I also noticed differences in how various clients responded to these ways of

mirroring, although this was unclear too; but, overall, I began to see differences in my

intervention style and various changes in the clients.

With these initial discoveries and thus several questions, I wanted to take the time

to analyze my own mirroring patterns in detail as well as the responses of one client.

Since I had already developed relationships with the children from my internship site, a

new client was needed for this study. I was able to work with a new child for five, forty-

five minute sessions. Jose (a pseudonym), an eleven-year-old boy diagnosed with ASD,

was selected by the principal and special education teacher at a school in downstate

Illinois, where my research took place. I did not meet Jose until our first session as a way

to ensure the entirety of our relationship would be viewed later for the purposes of this

study.

Method

At this point in my work I understood and used mirroring to adopt the overall

movements, and qualities of those movements, as a way to reflect back to the client their

own physical expression for the purposes of gaining awareness and building rapport. I

also used mirroring to help understand more about the client's internal emotional

experience that these movements might create for them. By doing this, I was able to form

or feel a connection with the client because adopting their movement expressions was a

way of getting to know them, especially if they were nonverbal. This way of using

mirroring was discussed in Chapter Two as empathic reflection. As previously

mentioned, empathic reflection is a process for reading and responding to the client, but

mirroring is the actual intervention. The literature also uses many other terms for

mirroring, but the process of empathic reflection remains the groundwork for all of these

terms. Tortora's (2006) definition of mirroring is "literally embodying the exact shape,

form, movement qualities, and feeling tone of a person's actions" (Tortora, 2006, p. 259).

I chose to use Tortora's definition because she describes how mirroring is done, without

the use of an example as many other authors have done, and it was very close to my own

use of mirroring at the time. Throughout this study, Tortora's definition of mirroring will

help to describe moments of my movement reflection where I am using the intervention and when I am not.

Tortora describes mirroring as part of the first step of the therapeutic process outlined in the Ways of Seeing technique discussed in her book *The Dancing Dialogue* (2006). This definition, along with a parallel discussion of my mirroring process displays my adherence to the technique. Within Tortora's description, the technique follows the therapist's progression of intervention styles through treatment. The technique begins with match, which consists of attunement and mirroring. In contrast to mirroring, attunement is defined as "[the] matching of a particular quality of another person's movement, by not completely depicting the entire shape, form, or rhythmic aspects simultaneously, as in mirroring" (Tortora 2006, p. 259). Both attunement and mirroring are interventions that make up the first stage of the technique. Mirroring is the intervention that is the primary focus of this study. The subsequent steps to the technique are Dialogue, Explore and Expand, and Nonverbal to Verbal.

In addition to the technique, Tortora (2006) discusses the Ways of Seeing method. The stages of the treatment in the Ways of Seeing method help "a child explore the environment in new ways" (Tortora 2006, p. 263). Tortora describes the method as being important because "through spontaneous explorations children can discover their own developmental progressions; when children are given the chance to use their bodies to explore their environment, stages of development naturally unfold" (p. 263). Upon further investigation of the Ways of Seeing method I concluded that it might be a tool for tracking the development of the therapeutic relationship. Although not specifically designed to track the relationship, it tracks the progression of therapy that occurs through

the therapeutic relationship. I concluded that if the therapy follows the progression of the

method, then the therapeutic relationship must be intact. In contrast to the technique,

which is based more on what the therapist does, the method is defined as the outcomes of

the therapist's interventions described as what the client does. The method contains three

stages: Stimulate, Activate and Mobilize. Each stage of the method contains "goals" for

the client that can be reached by the application of appropriate interventions by the

therapist. These goals appear in the literature as thematic developments of the client's

movement that build on the developments of the previous stage.

In addition to this, the entire theory, the technique and method, informed this

study because it is based on the use of movement and DMT. As a dance/movement

therapist Tortora's uses DMT techniques like starting where the patient is and a non-

directive approach. As Tortora (2006) explains, "spontaneous explorations" through

movement help the child to find their natural progressions of development (p. 263).

After assessing how best to use Tortora's approach (both technique and method),

it seemed most appropriate to start my sessions in a similar fashion. I developed a coding

sheet (see appendix B) based on Tortora's Movement Signature Inventory from *The

Dancing Dialogue* (2006). The Movement Signature Inventory (MSI) is Tortora's

comprehensive version of a movement coding sheet that includes a variety of movement

qualities that help the therapist using her technique identify potentially relevant

movement information. I chose only specific elements from the MSI that I anticipated

would be useful for this study. Although I did not use the coding sheet I developed, it was

beneficial in shaping my observational habits and focus prior to the study.

During the Sessions

Each of the sessions was videotaped so that during data analysis they could be reviewed without relying on memory. In preparation for the sessions, I did not plan specific interventions other than the intent of using mirroring. I was prepared beyond this to use corrective touch and redirection. I used each of these techniques throughout the duration of each session, but relied heavily on the use of mirroring.

I did not meet Jose until our first session. I was unaware of his tendencies, behaviors, and abilities. I was told he was a "typical autistic" child so I made some assumptions based on my experience with the children I worked with in my internship. I was prepared for what often looks like casual aloofness that comes with the difficulty being in relationship (American Psychiatric Association, 2000; Koegel, Vernon, & Koegel, 2009; Finnigan & Starr 2011). I expected that getting his attention and engaging with him might be difficult. I also expected some amount of the behavioral symptoms like rocking, pacing and possible self-injury behavior. I was also prepared for very limited, if any, verbal communication. With all of this I was nervous but felt prepared because of the techniques, interventions and general paradigm that is DMT. I was comforted with my experience with DMT that I gained through my graduate training in that, although still new to it and not completely skilled, I was equipped with the ability to improvise, observe and adjust to any new situation with a client. Although all therapists are prepared in this way to observe, assess and intervene in order to build relationships with their clients, DMT offers the therapist ways of retrieving information from clients and using all nonverbal communication for potential avenues of observing and relating. One way of observing and interpreting non-verbal information is through the use of

Laban Movement Analysis (LMA). I relied heavily on LMA to observe and assess Jose's movements during the sessions, and as my movement lens for data collection and analysis.

One aspect of DMT that I utilized is to "start where the patients are at" (Sandel, 1993, p. 99). This phrase comes from Marian Chace, the "grand dame" of DMT. Sandel (1993) reveals that, "Implicit [to "starting where the patients are at"] is an acknowledgment that the dance therapist may continually have to modify the environmental structure in order to do this" (p. 99). This is done through remaining "flexible and open to even the smallest, subtlest communications" (Sandel 1993, p. 99).

Another aspect of DMT that I used to help facilitate the relationship was a non-directive approach. I did not come into the session with movement exercises or specific interventions that I would use to engage him in the relationship, with the treatment goal to increase his time spent in relationship with me. This non-directive approach would allow me to see his baseline for relating, how he already participated in interactions with new people. From there I would be able to choose interventions in later sessions that would begin with his previously established ability to move in a relationship. With this approach I would use his movement qualities, and preferred movements as our dialogue for getting to know each other.

Data Analysis

After the series of sessions I reviewed the video and found the videos of the first two sessions most clear and successful in capturing our movement. The third session's video contains a little less of our interaction because of the time spent on the sides and corners of the room that was not captured by the camera. Sessions four and five have the

least amount of time with either or both of us in view, partly because he spent a lot of time in the corner. In days four and five we were moved to a different room than the first three days, and the placement of the camera proved very challenging with the provided furniture. Because of these drastic differences in what and how much of our interactions were captured I spent the most time analyzing the data from the first day. The first day's video contained the most usable information that could be viewed repeatedly with little reliance on memory.

My next task was to edit the video into segments of movement dialogue that contained the intervention of mirroring. Many times during the sessions Jose would leave the interaction with me and sit or stand at the boundaries of the room. This created punctuated movement segments and I chose to focus my analysis on the times when we moved together. During the times away from me he usually would not make eye contact, which was one of the ways I interpreted his need to disengage from the relationship. In discussing the data collected from the sessions I will refer to times of engagement in the relationship, which are punctuated by times of disengagement. Because this study's focus relies on the changes that come from the intervention of mirroring I chose to look at the times of engagement where mirroring took place.

The edited video of the first session was then analyzed with Laban Movement Analysis (LMA) in detail. Every aspect of both Jose's and my movements were written in consecutive order. During analysis, when transcribing our movements where we moved at the same time, I would begin by describing Jose's movements. Then I would review the video again and insert the description of my movements as they occurred with Jose's. At times of little movement, breath and shape flow were described. This amount of

detailed information allowed for very in depth observation of both Jose's and my

movement habits and patterns.

From here I was able to determine if I was mirroring Jose based on the qualitative

data provided by LMA description. This was done through comparing the LMA language

description of both of our movements side by side. If the written description of the

movement qualities performed by Jose were the same as the movement qualities that

described my reflected movement, then I determined that mirroring had occurred. This

interaction would then be labeled as "mirroring," sometimes referred to as direct

mirroring. In addition to this, after identifying mirroring, I added the LMA category

(Body, Effort, Shape, or Space) that identified the most salient aspects of the movement

that I was mirroring. Although all categories of LMA (Body, Effort, Shape and Space)

can be identified in all movements, some categories seem to take center stage more than

others. In most cases, what I was mirroring were qualities within the categories that took

"center stage." So, with the additional label of the LMA category, I was able to identify

additional information about which categories Jose was using as well as what categories I

was mirroring. These lead to the development of the movement themes that will be

discussed later in detail. For interactions in which the descriptions of my movement

reflections were close but not quite the same as the descriptions of Jose's movements, I

would label them with the appropriate mirroring type: mirroring modified, mirroring

exaggerated, and mirroring diminished. These three mirroring types are outlined in the

Ways of Seeing technique (Tortora 2006, p. 259-260).

Tortora defines mirroring modified as "the overall style and quality of the

movement is left intact, but some aspect is changed" (2006, p. 259). What is changed in

this mirroring type could be a range of things including where in the body the movement occurs. So for example if Jose rocked forward and back using only his upper body while sitting in a chair, the way I would mirror this by modifying might be to swing my feet (changing where in the body it occurs - Body) but at the same pace (keeping how it is done - Effort). Another way I might modify the movement would be to rock at the same pace (keeping how this is done the same - Effort) but change to moving side to side (changing where in space the movement occurs - Space). Both of these examples involve some aspect of Jose's movements that stay the same and another aspect that is changed as a way to encourage something new from him.

Mirroring exaggerated is described as "the embodied movement qualities are enlarged, but the overall sense and style of the movement is retained" (p. 260). An example of this, continuing with the rocking example, might be rocking with my entire body, adding feet and arms (Body). Jose's movement of just rocking with the torso is enlarged in my body but the rhythm, pace (Effort) and intent of the movement is the same. Finally, mirroring diminished is defined as "some aspect of the movement quality is reduced, but the overall sense and style of the movement is left intact" (p. 260). In the example of rocking, I might diminish the movement by rocking but slowing down the pace (Effort) by half, so as he would rock forward and back, forward and back, I would only rock once.

Overall, in session one, the LMA descriptions provided the information about Jose's and my movements, which, compared to each other, determined if mirroring occurred. From here the LMA information determined what type of mirroring was used as well as additional information about Jose's use of the LMA categories. After this I

looked for themes within the movements that were mirrored that corresponded to the stages of the method. These themes will be discussed below in detail. In sessions two through five, LMA analysis was applied on a broader scale, without a full transcription of the sessions, where I looked for the themes that came out of session one.

Themes

In session one I identified four themes that helped to describe the development of the relationship. These themes were: Proximity, Orientation, Touch and Floor Patterns. Proximity refers to the general use of space of one individual as it relates to another person in or out of relationship and can be thought of as interpersonal space. "How and where a child physically places herself in relation to objects, other people, and activities going on in the room reveal her sense of personal boundaries and body awareness, as well as her social comfort level" (Tortora 2006, p. 210). Changes in Proximity, in this study directly related to Jose and my changes in Orientation. Often when moving together a change in closeness also included a change in facing. My understanding of Orientation refers to a person's facing in space in relation to another person or object. Examples can be face-to-face, side-by-side, back to back, or anything in between. The next theme of Touch refers to times when either of us would make physical contact for a specific purpose with the other. This could include reaching with an arm or leg to make contact or full body contact as in Jose sitting in my lap. The last theme, Floor Pattern, refers the movements through space where one particular path of traversing the space is used multiple times. This occurred as from moving from wall to wall or as a circular or curvy path through the middle of the space.

The themes are a collection of movements that when viewed as a whole appear to represent more than the individual movements on their own. The individual themes also represent a significant moment during our interaction that showed change and/or development in Jose's movement choices that directly correlated and help to show a stage of the Ways of Seeing method. The significance of the chosen themes comes from their use by both Jose and I as well as how they demonstrate the related stage of the method. What follows will be a discussion of session one through these themes and how they show the development through the Ways of Seeing method. Sessions two through five will then be discussed through the movement themes, but with less detail. In sessions two through five, I applied what I learned from the analysis of session one and used the themes and their corresponding stages of the method to identify which stages were reached. In addition, examples will be given through LMA description to show qualitative changes as well as how the intervention of mirroring was applied and the changes this produced.

Narrative - Session One

During the first session I discovered Jose did not use verbal language to communicate and our interaction would be limited to moving together. I discovered this after inviting Jose into the space, saying "Hi" and asking him questions without response from him. I then talked with his paraprofessional and suggested she sit outside the room to minimize distractions. I then moved the chairs and tables out of the way to provide us with enough space to move in the center of the room. During this time he wandered around the room and he seemed lost. His pathways were indirect and seemed without purpose. He did not look around or at things when he wandered about. I sat down near

the center of the room and waited to see what would develop. It did not take long before

he found me and walked in a very direct pathway to me. I interpreted this change in

pathway from the wandering indirectly about the room to a straight direct pathway to me

as Jose's way of saying "I'm ready."

       This simple change in his attention, awareness, and presence, as well as what he

did to show these changes, all came through non-verbal means. In analysis I was able to

make this conclusion based on my abilities to observe and understand Jose's movements

based on Darwin's theory (1848) that humans ability to do this comes out of an

evolutionary adaptation out of the need for relationships for security. Both of us observed

eye contact and the smile of the other person and we were able to begin our movement

dialogue. The Strange Situation study (Ainsworth, Bell, & Stayton, 1971) also relates to

this quick interaction. Based on Jose's lack of distress response to his paraprofessional

leaving the room and his quick move to engage with me I wondered if this meant that he

had developed a secure attachment with either her or one of his caretakers/parents. The

Strange Situation focused on the mother-child dyad where children who did not show

distress when the mother left the room were understood to have established a secure

attachment with the mother. Because the paraprofessional worked solely with Jose on a

daily basis, as well as the fact that Jose was beyond the age of children studied in the

Strange Situation, it may be concluded that Jose has developed the capacity for creating a

secure attachment with adults. By observing Jose's movement change from wandering to

directing his attention to me, I was able to see this as an important aspect of his behavior.

He was ready and available to engage with me. This was our first step toward developing

a therapeutic relationship that would continue throughout our five sessions.

Stimulation Phase

After this quick interaction of Jose's approach, there was a period of disengagement. Jose wandered through the space again. I mirrored this and made large pathways from wall to wall and corner to corner, just as he did. I did not follow his exact pathways but made my own. In this way, my use of mirroring was modified because my use of Space (large pathways that covered the room) was the same but the actual pathways I used were different from him. Jose had little attention in regards to our Proximity and Orientation. He moved on his own, with little attention to me, except for the occasional glance in my direction.

At one point during our wandering we met and stood next to each other. Jose had been still, standing against the wall, and I joined him there. When I approached him there I mirrored his Orientation by standing next to him, facing out into the space. By standing next to him, the first time I had done this in this session, I was inviting him to be "with" me. By changing my Proximity to him and mirroring his Orientation, I attempted to bring his awareness to the fact that we had not yet been in close Proximity.

The themes of Proximity and Orientation show the session's first stage of Stimulation. Tortora (2006) discusses Stimulation as the child "exploring the environment through self-discovery" (p. 263). This relates to Schore's (1994) explanation that the environment includes the mother or care giver. The most important aspect of this stage of the method is the child's awareness of some aspect of his or her behavior. Tortora states that the "primary task of stimulation" is to "bring a child to an awareness," (Tortora 2006, p. 263). Since the Stimulation phase is about exploration and awareness, I saw Jose's and my use of Proximity and Orientation when standing next to each other for

the first time (and what is to follow) as our way to "test the waters" with the other person. From here the Stimulation stage continued as our movement dialogue focused on the use of Proximity and Orientation.

Jose responded and grabbed my hand as we ran to the opposite corner which was flanked by two tables and produced a very small space. I followed Jose into this small space and let him determine where he was going to stand. I then placed myself equal distance from him and the table next to me. Here we maintained the side-by-side Orientation. While we moved in this space and used mostly gestures, I remained in the same place while Jose moved several times to stand very close to me. Jose then ran to the opposite corner and I followed him. Once there, we returned to the original corner and ran along the same pathway as before. Back in the original corner Jose and I changed our Orientation back and forth between side-by-side, face-to-face and sometimes in between.

Our next dialogue was spent lying on the floor on our backs with our knees up. Here I mirrored his Orientation by lying in the same position next to him. After lying with him for a moment I sat up and he placed his right hand on his stomach. I mirrored this, putting both my hands on my stomach. In this small gesture I used mirroring exaggerated by making the gesture larger by using both hands. After this he fidgeted his hands on his stomach, moving the fingers a bit and placing some fingertips over the other hand a couple of times. I then tapped my hands on my stomach leaving the wrists in the same place. For this gesture I used mirroring exaggerated again by taking his movement and intensifying his use of Effort.

After a pause I rolled back to the floor, in the same position as him and tapped my hands a couple of times on my stomach. He did not react to this and paused for a moment

before he sat up. I noticed that his trajectory was toward me and I feared he would try to

sit on me, so in the middle of his reach to sit up, I sat up as well. Once he saw me begin

to move, not quite vertical himself, he retreated back to his original position. I scooted

toward him, facing him and resumed the arm position of hands at my stomach. Just

before I reached this position, after he returned to laying down, he tapped his hands on

his stomach a couple of times, similar to how I mirrored his movement but in a slow,

uncoordinated manner. When he had attempted to sit up to approach me he used the

tapping as a way to connect and communicate despite being interrupted by my shift in

body position.

        In this exchange, Jose moved to sit up, changed his Proximity and Orientation,

possibly to match mine. Because I had disrupted this and his opportunity for a closer

engagement he used the movement of tapping his stomach as a way to engage with me.

Previously I had used this same movement to engage with him. This particular movement

had become a way to communicate with each other and to share a dialogue. I interpreted

his use of this movement to create a dialogue as attempting to participate in the

relationship by communicating through non-verbal means. This could be seen as Jose

seeking connection. In attachment theory, Bowlby and Ainsworth assert that all people

seek to establish an affective tie, or attachment; with a specific other to meet needs for

physical and psychological security (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby,

1988). Jose's use of the tummy taps could be viewed in this way. By repeating a

movement that I had repeated directed toward him in close Proximity and Orientation, he

was now using it to communicate as a way to seek an "affective tie." Although this may

not signify a relationship just yet because, as Obegi (2008) says once the attachment is

formed a relationship develops. In this interaction the tummy taps were originally

presented by Jose. After I had mirrored this movement back to him Jose changed his

Proximity and Orientation which I also mirrored. With our movements using Proximity

and Orientation the stage of stimulate can be further identified.

A few moments later I repeated the tummy taps, but this time for a little longer. In

this use of the movement I was using mirroring exaggerated, by exaggerating the use of

time. Jose did not respond to this. After this we paused for a moment and I returned to the

floor in the same position as him, on our backs, with our knees in the air. While

maintaining eye contact, he dropped his knees in an arc. As he did this I put my hands on

my stomach and tapped again. Just before his legs reached the floor, after my tummy

taps, he tapped his stomach using the same effort qualities that I had added to his original

movement. In this instance, the effort qualities I added remained in my movements and

now he had adopted them as well.

In this exchange the movement dialogue continued but only after I changed my

Proximity and Orientation to mirroring his. In addition, he now completely adopted the

effort qualities that I had initially added to his movement. This is another way that he

used this movement as a communication. By adopting the effort qualities and reflecting

the movement back to me, Jose was using Schore's (2001b) concept of affect synchrony,

which is defined as how the environment (mother or other attachment figure) and the

child come to a common state of regulation, making a pattern of interaction. By

continuing with this specific movement dialogue, Jose changed the way the movement

was performed and used resonance to come to this common state of regulation with me.

Through this visual information, Jose's mirror neuron system allowed him to observe and

adopt my new version of the movements because his mirror neurons created an inner sense or feeling of the movements that I had performed which he was then able to recreate.

In the next exchange, I changed my Orientation to him several times in order to observe him more fully. I moved from laying next to him to sitting, facing him, while he remained on the floor. During this time I was having trouble engaging him in extending our dialogue further. We had been using the tummy taps for some time as a dialogue, but after his adoption of my effort qualities the dialogue seemed to dissipate. I was now feeling disconnected from him and eager to get back to feeling connected. My changes in Orientation were one way of doing this. He was very still at this time and, and since my primary intervention was mirroring, I was without movement to mirror. I used some touch cues to invite more movement from him, but each seemed unsuccessful.

Soon after this Jose changed his Orientation to face me and laid on his side in a fetal position. This moment and what came just after I remember feeling different from what came before. Once he turned to his side, he seemed to soften, using free flow and passive weight. Because I felt disconnected I took this moment to sit and wait. At the time I remember feeling like we were taking a break, a moment to check in with ourselves. After what felt like a more formal exchange we were now resting, and there was a sense of comfort being in relationship, perhaps for both of us.

Jose then began lightly touching his eyelashes with one hand. He rolled over onto his back and continued, but now with both hands. I watched this for a moment before leaning over him and mirroring the movement. At this time I used direct mirroring, maintaining his quality of the movement and used the same hand to eye combination as

him. After a few moments of this he quickly sat up, sitting very close to me, making direct eye contact. We continued using our hands to touch around our eyes. I then used mirroring modified and pulled my eyelids to widen my eyes while making a facial expression of surprise. He repeated this but smiled as he widened his eyes. This exchange continued with small alterations and eventually as we dropped our hands, we just made facial expressions. This did not last long before he stood up and ran to the side of the room.

In this movement dialogue Jose and I used affect to communicate. Affect was mirrored which produced a change in Jose's use of Proximity and Orientation which shows the method stage of Stimulate. Affect is the physical appearance of emotions, or what the face does in association to what that person is feeling when experiencing an emotion. In neuroscience literature it is explained as being the appearance of emotion that is dictated by a relationship (Damasio, 1998). When these affects are synchronized, as Jose's and mine were when exchanging facial expressions, both sides of the dyad come to a common state of regulation. This kind of exchange occurs in optimal relating between mother and child (Schore, 2001b). Both partners match the state of the other and adjust their own attention, stimulation, and arousal (Schore, 2001b). Just as a mother would, I mirrored Jose's expressions, literally showing him his current state, which Jose then reflected back to me.

Activation Stage

After the stimulation stage, Jose sat in a chair near a corner and I sat on the floor in the middle of the room. We rocked together at a similar pace for a while before he stood up, walked toward me and sat down next to me, all the while making direct eye

contact. Once he sat down, he put his hands on my leg and pressed down twice. I then

used direct mirroring by pressing down on his legs twice using the same timing and

pressure as him. He then reached his arms in front of my legs and swiveled his hips to sit

in my lap. What followed were several minutes of this full body contact where we moved

together, rocking side to side, forward and back, and a series of full body squeezes by me

to give him compression. Shortly after, he abruptly stood up and walked to the side of the

room, breaking the engagement. Although this was one of our shorter interactions before

Jose disengaged again, it was the most touch, by both of us, in the session. In this short

interaction Jose went from sitting far from me and making little eye contact to making

direct eye contact and sitting in my lap. I attribute this change to how I mirrored his

preferred movement of rocking and allowing him the space to determine our interaction.

One can assume that the movement dialogue that used touch continued the

development of the relationship or attachment through the use of some

psychoneurobiological concepts discussed in the literature in Chapter Two. Through joint

implicit processing, which handles nonverbal information, like our body-to-body contact,

we were able to have an intersubjective sense of each other. This processing located in

the right region of the brain responsible for automatic functions like heart rate and

breathing, communicated action and sensation information, which was processed through

the mirror neuron system. The right brain of each person of the dyad responded by giving

a sense of the other, especially through the understanding of non-verbal information.

Through sensation and action perception, automatic embodied simulation (Meltzoff &

Moore 1997) was possible as we could feel the weight shifts and rhythm of the other

person. On a neurological level, we created a bond because our parallel neural networks

associated with our movements fired at the same time. In addition we gained an intersubjective experience of the movement event because our movements matched each other, which was done through automatic embodied simulation. As Schore & Schore (2008) state, "implicit right brain-to-right brain intersubjective transactions lie at the core of the therapeutic relationship" (p. 14). Through the theme of Touch Jose and I were able to further develop the therapeutic relationship which was made possible by these neurological functions.

This exchange, where Jose sat in my lap, demonstrated the theme of Touch, which signified the second stage of the method, Activate. Tortora's (2006) description of the Activation phase involves the "child taking an active part in the engagement to facilitate and develop the focused elements of the stimulations into something new" (p. 265). What moved us to the Activate stage was Jose's change in Proximity, after mirroring occurred, to full body contact and continual use of touch that followed. After this, there were more instances of touch more often by both of us. Most of our movement interaction, up until that point, was on an individual basis, without touch, we watched each other to gain information. In this stage of the method, Jose used touch a few times to communicate with me.

In our next series of dialogues, Jose began to rock again, which I mirrored. I mirrored this by keeping Jose's qualities and use of the body the same. In this and earlier instances in the session, where I mirrored Jose's rocking, I kept the same amount of space between us at all times. In my analysis I named this corresponding rocking. When he would rock forward I would rock back and the reverse. At the time I was particularly

focused on Jose's use of Space, which is part of the reason why I mirrored these

movements according to our use of Space and how it reflected our relationship.

He then left his chair to sit in front of me and proceeded to use touch to alter my

body position. First he reached with both hands for my hands and slightly pulled them

toward him. This felt like an invitation to sit closer so I scooted forward. I left my arms

there as he released and slightly pushed my forearms down. Then he put his hands on the

backs of my shoulders, not shoulder blades, and cupped the round part of my shoulders

very gently. I mirrored this by using the same aspects of body and effort used by him. I

reached my arms under his to touch his shoulders. Then he brushed the backs of my arms

from the shoulders to elbows in what felt like a corrective/touch cue. I let go of his

shoulders and dropped my arms. His movements and use of touch felt very different than

before; he was taking a lead. I remember feeling that I needed to get out of his way, and

let him complete this phrase of movement. For this reason I chose not to mirror the rest of

his movement phrase. He then grabbed my feet and pulled them to extend my legs

straight out on his left side; he reached his right arm and placed his hand on my left

scapula and pushed me, in my forward direction. I scooted myself when he pushed

because his touch felt like a directive and not a forcible push. He then moved to stand up,

changing his right arm from touching my back to grasping the top of my shoulder to push

off from. Here he employed a new use of touch by using me for support and pushing

himself up from a seated position to standing.

Early in this section, I mirrored Jose's movement pattern of rocking which lead to

his developed use of the theme of Touch which shows the method stage of Activate.

Jose's use of the touch in this dialogue was unique in our interaction. It happened very

fast, but it was clear that his use of body changed. He was very deliberate, present and every move seemed like a clear communication. This is why I dropped my hands from his shoulders. It felt like something I did not need to mirror, because the connection had been established. This was the first time in the session that he took a leadership role in directly effecting our engagement. Tortora's (2006) description of the Activation phase involves the "child taking an active part in the engagement to facilitate and develop the focused elements of the stimulations into something new" (p. 265). In this interaction Jose used his body to physically manipulate mine, taking an active part in out relationship by asserting himself to make a direct change.

Mobilization Stage

After the previous touch pattern there was a moment of disengagement. Once we re-engaged Jose chose to sit in a child sized rocking chair and began rocking. These chairs are common in special education classrooms as they provide a safe means for this activity which is common child with ASD. When Jose began rocking I decided to join and mirror this movement because this seemed like a preferred movement that I could use to help us develop a dialogue.

Rocking forward and back is a very common physical symptom of ASD (American Psychiatric Association 2000, p. 67). In most cases, I would not consider this a conscious movement expression but rather a self-regulating movement. Even though I see this movement in this way I am still curious about what this movement is, does, and means to someone with ASD. So I chose to mirror his rocking to provide a way to see if this type of movement changed or provided something for the relationship. Part of this curiosity is that, in my internship experience, I noticed that rocking (or any other

stereotypical movement associated with ASD) tended to be "ignored" and the teacher,

paraprofessional, etc., would disengage while the child was doing this, or the adult would

try to stop the child from performing these movements. Either way, in my experience this

movement has either been a split from a relationship or disrupted and not let come to

fruition. I wanted to try the opposite, and not only let Jose engage in and use the

movement for as long as he needed, but also to engage in it with him to see if this would

produce any change at all.

When Jose began rocking this time I changed the way I mirrored from

corresponding to reflecting him. By reflecting him I moved forward when he rocked

forward and back when he went back. I mirrored Jose's rocking by using direct mirroring

through reflective rocking, not only mirroring his use of Space but also his timing. This

lasted for only a short time before Jose began moving through space toward and away

from me by pushing himself while sitting in his chair. I mirrored this sitting on the floor,

following his lead of when to move in either direction. Again, I used direct mirroring,

focusing on his use of time and Space. This floor pattern of moving through space can be

seen as similar to the reflective rocking pattern used by both of us prior, but now he used

the chair to locomote through the room.

At first this floor pattern was slow and unclear, with many breaks and stops in

between. It took a long time to get from the center to the edges and back. After a few

times, the pattern became very clear and deliberate with fewer movements to slow it

down. After a short disengagement we resumed moving together and the floor pattern

continued. It began with him in the chair, pushing and pulling it with him to get closer

and further away from me.

He then developed from pushing himself forward and back in the chair to walking and running through space as he abandoned the chair altogether. I saw this as a significant change as he then stood and walked towards and away from me by using his whole body. Once standing, the floor pattern continued on the same straight pathway.

The final stage of the method is Mobilize, which was shown in our use of floor pattern. The floor pattern used this section did not change but how they were used did. The development of how the floor pattern was used signifies the Mobilize stage of the Ways of Seeing method. Tortora (2006) explains, "Mobilizing a response enables a child to explore her body's moving further into her surrounding environment. Mobilizing can involve actually moving through the room" (p. 266).

There were eleven floor pattern approaches and retreats where we moved in and out from each other. The change in how he approached (either running or walking) in combination with the type of contact made in the center (bump of arms, bumping chests and taps with one or both arms) showed an interesting development. The first two times he ran but stopped with room between us (the second time with less space than the first). For these two approach patterns there was no contact. The next two times he ran and bumped into me. At least the first time it seemed as though he was not going to stop at all. The fifth time he ran, stopped just before reaching me, put his hands up, took them down and then bumped his chest to mine. The next time he ran past me, stopped and turned to bump my chest. After this he walked with his hands down and only bumped chests lightly. But on his next approach he ran and we bumped chests as before. Then he reverted back to walking and with his arms crossed gently touched my arms with his.

Then he ran again but stopped before and leaned in to touch arms. On the last approach he walked, stopped just before reaching me, and touched my arm with one of his.

During these floor patterns, I used direct mirroring to complete the pattern as the other side. I watched him closely to see if he was going to run or walk. I also used the same hand and arm gestures as we approached and reached center. Although he used many different combinations of effort during all of the approaches and retreats I made sure to mirror him directly.

The literature discussed in Chapter Two helps to explain the Floor Pattern interaction and supports how these patterns help to develop relationships. Ainsworth et al. (1978) defined a secure attachment as one in which a child balances closeness and autonomy and has positive expectations about the availability and sensitive nature of the mother. Although it cannot be determined at this point if Jose had established a secure attachment with me, based on my earlier observations of his willingness to engage with me he may have the ability to trust, it may be concluded that he was showing an interest in wanting to relate. During this interaction we both used touch in the floor pattern as a way to "test the waters" of the relationship by the various interactions in the center. Based on the developed "patterns of expectations" which came from my continual use of mirroring Jose was able to try new ways of engaging (Beebe and Lachmann, 2002). After repeated interactions Jose created an inner sense of confidence in my ability to provide safety, which enabled his exploration. Here Ainsworth's term secure base could describe my role in this interaction (Ainsworth, 1967).

End of Session One

The remainder of Session One continued with the theme of Floor Patterns. After moving towards and away from each other, and after a period of longer disengagement, Jose and I resumed moving through space but changed our Orientation to moving next to each other. We ran back and forth from wall to wall, punctuated by periods of time where Jose sat in a chair. While seated, I waited for his next run by standing against the same wall. Several times he would stand up and look at me, at which time I would prepare to run by shifting my weight forward. He would then take off running, with me close behind. Once at the opposite wall we would pause, looking at each other, and run back together. During this time Jose would smile and giggle, as he would tease me with his attempts or start to run before stopping after a few steps, causing me to stop as well. This interaction became a game, with Jose clearly assuming the leader position. After several of these runs Jose finally rested in the chair on the back wall and we both had a moment of disengagement. Shortly after, I invited him to the center of the room, as our time was almost up. The beginning of our movement dialogue began almost immediately upon entering the room and at this point I realized I had yet to introduce myself and explain why I was there or what we were doing. I explained the next four days would involve moving together as we had just done. After forty-five minutes I said goodbye and walked him back to his classroom.

Summary of Session One

Through analysis of Session One I found a direct correlation between the intervention of mirroring, the movement themes, and the stages of the Ways of Seeing method. Directly mirroring Jose's movements lead to longer movement dialogues with

less time spent by him in disengagement. The longer movement dialogues provided the time for the themes to develop in our movement exchange. Through the dialogue of the movement themes we were able to achieve the "goals" described by Tortora (2006) for each of the Ways of Seeing stages. The Stimulation stage was achieved through the themes of Proximity and Orientation because, with the stage's goals of awareness and exploration, we used closeness and facing changes to explore the relationship by bringing awareness to how close we stood to each other and how we faced each other. The second stage of Activate involved the goal of Jose taking an active part in the engagement. This was done through the theme of Touch, as Jose chose to use physical contact to gain overall closeness, through full body contact, as well as to manipulate my body by physically changing my posture and position. He took a leadership role in both instances by directly leading our movement dialogue through touch to develop into each exchange. The final stage of Mobilize relies on the goals of exploring the surrounding environment especially by moving through space. The theme of the Floor Pattern fulfills this goal as Jose changed from rocking in his chair to pushing the chair through space toward and away from me. This theme then further developed as Jose abandoned the chair and used running and walking in the same forward and away floor pattern from me to explore the relationship by moving together through the space. The individual themes show a concentrated view of our movement dialogue that each achieved a "goal" of the corresponding Ways of Seeing stage. By achieving these goals and progressing through all three of the stages the relationship can be seen as developing. In analysis of the subsequent sessions the identification of the themes in our movement dialogue continue

to show the stages of the Ways of Seeing method and how the relationship continues to develop.

Session Two

Session Two began almost where we left off in Session One. Jose began by running back and forth from wall to wall. I joined him a few times in such a way that we would cross paths in the center of the room. After a few times I sat in the center of the room and I changed my Orientation to face him as he reached the walls. He then sat against a sidewall facing me and I changed my Orientation to him again. After using mirroring exaggerated to reflect his seated foot stomps, we stood up and continued running together from wall to wall. Jose used touch throughout these, once by leading me by holding my hand and later with quick touches on my arm, which seemed to signal it was time to run. We spent of lot of time in the middle of this session using the theme of Touch. First with weight sharing, as we leaned back holding hands. Later, with Jose sitting in a chair with his feet on my legs, using increasing pressure to push off me to rock in the chair. This movement dialogue developed as I used my hands to reciprocate the pressure on the bottoms of his feet. We then used our hands in applying pressure and alternated to "clap" the other person's hands. After this we switched and I used my feet to apply pressure to his hands. We continued alternating between these different touch patterns and weight sharing through our longest period of interaction in any of the sessions. After this I changed my Orientation and sat next to him, both of us in chairs. Here we mirrored each other's postural shifts and rocking. Later I changed my Orientation again to face him and we used the theme of Touch again by holding hands and rocking in the reflective way together. After a brief disengagement Jose approached

me to sit on my lap facing me, which made me uncomfortable and felt inappropriate. I moved him off my lap and he lay next to me for some time. In the following section we changed Orientation often, staying in close Proximity, finally ending up sitting across from each other. Using touch we then held hands and continued the rocking pattern together moving towards and away at the same time, in a kind of "peek-a-boo" way. Jose then changed to applying pressure to my legs, which I mirrored after him. He then used the same pressure to push my shoulders, which I mirrored as well.

After this Jose had a brief moment of disengagement while staying in close Proximity. This was the only time in our sessions that this occurred. I attribute this to my consistent mirroring up until this point as well as my immediate mirroring of his disengagement. When he stopped moving with me he broke eye contact and changed to a more internal focus for the first time in a while. I sat with him and had a similar internal focus as we shared a moment of self "check in." He then stood up and sat back in the rocking chair across the room. I picked up another rocking chair and placed it next to him. We rocked together, side by side, and then both changed our Orientation to sitting face to face. We continued to rock holding hands as we had done before. Throughout the next part of the session we continued with the floor pattern and touch themes running from wall to wall often holding hands. The session ended with Jose spending a lot of time sitting in my lap. We rocked side to side and finally Jose rested in my lap partially lying down.

Throughout this session, the themes discussed above, Proximity, Orientation, Touch, and Floor Patterns were present and our primary way of interacting. My mirroring throughout this session remained fairly consistent as I used direct mirroring instead of

modification, exaggeration, or diminishment to continue the movement dialogue we shared. As I had found in Session One, when I used direct mirroring our movement dialogues lasted longer and seemed to develop further than when I used other mirroring types, which also occurred in this session.

The Stimulate stage was shown first by how he changed his Proximity and Orientation to match me which brought awareness back to the relationship developed in the first session. Through changing our Proximity and Orientation to each other we were able to re-explore our interpersonal space first discovered in Session One. The theme of Touch signified the Activate stage. The amount of touch used in this session to make contact, engage in a movement dialogue, and, near the end, for support, showed the largest change in the growth of the therapeutic relationship. Our movement dialogue using weight sharing with our hands and feet showed his engagement in the dialogue as taking an active and equal part of the dialogue, one of the Activate stage's goals. Once moving through the space we both used Touch to invite and accept the invitation for weight sharing and as we ran through the space holding hands. The Mobilize stage was achieved through the use of the Floor Pattern themes as, similar to Session One, we used traveling through the space together as a way to explore the relationship through exploration of the environment.

Session Three

At the beginning of session three, Jose's paraprofessional informed me that he had been very agitated that day. His teacher and paraprofessional had had a difficult time keeping him focused in the classroom. I decided to bring some props supplied by the special education teacher into the room where the sessions took place. If needed, I

planned to use them to engage Jose. I chose stuffed animals, balls and a large circular

parachute. The parachute, or any type of cloth material is a common DMT prop that can

model the effort qualities of free flow and decreasing pressure, which are qualities

opposing Jose's movements that day. By using a prop that moves in these qualities it

often helps to modulate the person using the prop into moving in the similar way. This

was my goal and reason for choosing this prop on this day. In addition, using props

would also provide us with a tool to physically connect us as we used them together.

When Jose entered the room he immediately began interacting with the props and we

continued using the props throughout his session because of his initial engagement with

them. During this session Jose spent a lot of time on the sides of the room in long periods

of disengagement. He used limited eye contact and changed his Proximity and

Orientation towards me only near the end of the session. Early on I stayed in Proximity,

sitting face to face as we used the balls and stuffed animals. Jose often would leave the

interaction to sit on another side of the room against the wall, and I would follow him and

sit in his new place in the room. Later I sat in the middle of the room with the parachute

inviting him verbally to join me. Jose continued to move back and forth from wall to

wall, sitting for a bit before moving again. Here our Proximity was further than what was

commonly used in prior sessions. Later I sat with him in nearer Proximity and used the

balls to invite a movement dialogue. He was consistently distracted, grabbing new toys,

handling them for only moments before reaching for another one. After many attempts to

engage with him by mirroring his postures after changing his placement in the room, we

finally sat together in the middle of the room on the parachute. We each had a few small

balls with us and Jose began rocking forward and back pressing with both hands,

squishing one at a time. I mirrored this rocking pattern. After several minutes of this Jose,

lay on his back and I changed my Orientation to lying down next to him. We rested for a

moment and then he changed his Orientation to laying his head on my stomach. This was

his first use of Touch in this session. He then pulled the parachute over him like a

blanket. I changed my Orientation to sitting and he lay in my lap covered by the blanket.

We remained here for the rest of the session. Anytime I would move to invite a

movement dialogue from him, Jose made it clear that he did not want to move from this

position. I mirrored his energy level for this time as a way to maintain the relationship.

Once the session was over I told him it was time to return to class and he stood up and

left the room.   I primarily used the themes in this session. I changed my Orientation and

Proximity to meet him several times as he changed his placement in the room. Once we

sat together in the center Jose was more engaged in the use of the balls and did not appear

to attend to me based on Proximity and Orientation. Although Jose moved through the

room by walking from wall to wall, as he has done in previous sessions, his use of these

floor patterns did not correspond with the Floor Pattern theme. The pattern seemed like a

series of disengagements, as after I would meet him and sit in his new position he would

soon leave and move to another side of the room. At the end of the session Jose did use

Touch by lying in my lap for support. This use of the theme Touch appears to be the only

signifier of the Ways of Seeing method stage, Activate. In this way he took an active role

in determining the engagement by making physical contact as a way to explore or

maintain the relationship. Because it is the only theme used by Jose, I interpreted his

change in position to lie on my lap as the only appearance of direct attention by him to

the relationship.

Session Four

For the fourth session we were moved to a new room which neither Jose or I had been in before. This session, along with session five, have the least amount of our interaction captured on video, due to the placement of the camera. For this reason, I was able to review only the movement interactions that were filmed. In this new room, the wall next to the door was floor to ceiling windows, which made everything in the hallway visible. I used props again for this session: balls, stuffed animals, and the parachute.

Jose began, as he did in sessions one and two, with the theme of floor patterns by running from wall to wall and corner to corner. I mirrored this and ran with him from place to place keeping a similar Proximity throughout. As the pattern continued our speed dwindled from running to walking. We soon sat in the middle of the room and Jose covered himself with a parachute. I uncovered him and he reached for a ball and began applying pressure and tapping it with his hands. I mirrored this and modified his use of the effort, specifically weight, by fluctuating from increasing pressure to decreasing pressure. After a few distractions where people entered the room and a loud commotion in the hallway, Jose changed his orientation to face me and we began the rocking pattern, while holding large balls against our chests. Jose then began to squeeze them against his chest and we began a movement dialogue, using variations of pressure with the ball. Jose then lay on his back and picked up a stuffed animal dog and stood it on his chest. I changed my orientation to sit next to and facing him. He bounced the dog on his chest and I mirrored this buoyant movement with my head and upper body. He then brought the dog's face close to his and with small gentle strokes explored the dog's face. I changed my Orientation to sit near his face and named the body parts he touched. Jose

then reached for my hand and placed it on the dog's nose as I said, "nose." As this continued, I touched Jose's face after naming the corresponding part of the dog's face. Jose soon rolled over, changing his Orientation away from me. At this time the session was almost over and we cleaned up and gathered all of the props before we walked back to his class together.

In this session all of the themes were used, but with much less consistency than in prior sessions. In this session I primarily used the themes of Proximity, Orientation and Floor Patterns. In the beginning I mirrored Jose's use of the Floor Patterns and stayed in a similar Proximity and side-by-side Orientation. Jose did not change his use of Proximity and Orientation but maintained a similar Proximity and Orientation, which allowed for us to move together in this pattern. Near the end of the session, Jose used the theme of Touch only once when he placed my hand on the dog's face. Because of Jose's inconsistency in the use of the themes, I focused specifically on the movement dialogue with the stuffed animal in order to determine the stages of the Ways of Seeing. As I mirrored in my body the bounce he made with the dog on his chest I was attempting to achieve the goal of the Stimulate stage which is to bring awareness to an aspect of his movements, particularly the effort qualities he used in this phrase. As he explored the dog's face with his hands I named what he was touching. This led to more clear exploration of the dog's face, which is one goal of the Activate stage. In this session, Stimulate and Activate were the only stages reached in our movement dialogue.

Session Five

Jose's paraprofessional informed me at the beginning of the fifth session that he was having a particularly difficult day. This was clear when he entered the room, turned

half the lights off and curled up in the back corner of the room. Worried about the camera

being able to capture our movements in a now nearly dark room, I turned the lights back

on. This decision was made for the purposes of research; therapeutically the lights should

have been left off, as this was a clear request from Jose. I brought props for this session

as well, with the addition of bubbles as a special way to spend our last day together.

The first half of the session was spent mostly sitting in the corner. I sat with Jose

closely, but not as close as in prior sessions. He would often move away from me,

traveling to another corner, or, while I sat next to him, he changed his Orientation to face

away from me. In this way he made it clear that this day was to be very different from all

the other sessions. Later, I sat with him and blew bubbles drawing his attention. Later,

we popped them using different Effort combinations. After this he ran a few times from

wall to wall and corner to corner. I mirrored this and ran with him. We ended the session

by turning the lights down and he sat and lay in my lap covered in the parachute.

I accepted that Jose did not desire as much interaction in this session as he had in

the previous four. I changed my focus from creating movement dialogues to maintaining

the relationship with him while he was in such an agitated, disregulated state. He showed

this by his clear statement of entering the room, turning the lights off and sitting in the

corner. I wanted to communicate that although he was not in a place to actively engage

with me, I could still be with him and provide a container for him in this state. Without a

clear movement dialogue based on our limited interaction the Ways of Seeing method

could not be applied to this session.

Summary

Each of the five sessions was very different and Jose's presence dictated the outcome of each of the sessions. The first two days contained the most fluid dialogues as we moved together for most of the time. These also were the only two sessions where we progressed through the all the stages of the method. In the last three sessions Jose seemed less interested in moving together and at times seemed to avoid me. With the information provided by the paraprofessional, I was able to see this change as not necessarily relating to our relationship. In these sessions we only progressed through one or two of the stages of the method. Had treatment continued, later sessions may have included movement dialogues that used all of the stages of the Ways of Seeing method as was done in Sessions One and Two.

Prior to this study, working with children with ASD in my internship, I had used a variety of mirroring types, all with different reactions by the clients. At the time I did not have the language for the mirroring types provided by Tortora. In this study, as the sessions progressed I found myself mirroring Jose more directly. After experimenting with other types of mirroring such as modified, exaggerated or diminished, I found that maintaining as much of the original qualities in my own movements resulted in longer interactions with Jose. In analysis I noticed that the development of the dialogues came mostly after directly mirroring him. I concluded that direct mirroring lead to expanded movement dialogues that allowed for the themes to develop. This important discovery fulfills the research question of "How does this therapist's use of movement mirroring (as defined in the Ways of Seeing match approach) further the development of the relationship?"

With the longer movement dialogues that came from Jose's engagement after the application of the intervention of mirroring, the themes were able to develop. When the themes were viewed exclusively they gave a focused view of our interaction. Comparing the themes to the goals described in the stages of the Ways of Seeing method, a development in our dialogue was evident as we progressed through the stages of the method. Through the language of movement the themes provided the evidence of Jose's use of the goals of each stage as a way to build our relationship together. Although Tortora (2006) does not cite the movement themes used in this study to signify the stages of the method, the goals of each stage were understood in movement terms when compared to the themes in all of the sessions. What resulted were the themes of Proximity, Orientation, Touch, and Floor Patterns. The themes were essential for the interpretation of the Ways of Seeing method with the movement responses by Jose after mirroring was applied.

Throughout all of these sessions I used mirroring to engage and further our interaction. The techniques of dance/movement therapy and specifically mirroring provided a non-verbal inroad for offering and experiencing a relationship with Jose. Without relying heavily on our movement dialogue as a way to communicate, Jose and I might have never found each other in the moments of synchrony.

Discussion Chapter

Summary

The purpose of this study was to describe the outcomes of using DMT with an autistic child, specifically focusing on how movement mirroring affected the development of the therapeutic relationship. Utilizing dance/movement therapy techniques, Laban Movement Analysis, and the Ways of Seeing technique and method, I documented our interactions over a period of 5 sessions with video. The research questions this study set out to answer were (a) "How does DMT facilitate the development of the therapeutic relationship between a therapist and a child with autism?," (b) "Can and how does the Ways of Seeing approach help to show the development of the therapeutic relationship?," and (c) "How does this therapist's use of movement mirroring (as defined in the Ways of Seeing match approach) further the development of the relationship?" I was able to reach conclusions based on these questions discussed below.

Connections Between Questions and Findings

First, I was able to conclude that DMT fostered the therapeutic relationship through its emphasis on movement. Without the ability for verbal conversation to exchange ideas to create a shared experience, moving together was our primary dialogue to see, experience, and get to know each other. Our movement expressions developed over the course of each and all sessions which was shown by the development of the movement themes. The presence of the themes throughout the sessions shows that our exchange of movement was able to progress into more than disjointed non verbal expressions and actually produced a movement dialogue; a nonverbal conversation.

In relation to the second research question I found that the Ways of Seeing approach to DMT (the technique and method) added to the understanding of the relationship in two ways. First, the technique helped to clarify mirroring as an intervention and to further identify the styles of mirroring that were used. During the sessions I used various mirroring styles, which produced different responses from Jose that at times furthered the movement themes. During data analysis, the application of the Ways of Seeing technique and differentiating the mirroring types helped to expand my awareness of my own mirroring habits. Second**,** the Ways of Seeing method provided a step-by-step view of how the therapeutic relationship developed by addressing the co-created exchange during sessions. In some sessions our movement dialogue developed through all three stages while in other sessions only one or two of the stages were reached. Overall, the Ways of Seeing method provided a format to show how Jose's movement developed into the movement themes, which showed the progression of the therapeutic relationship and his interest in developing a relationship.

During data analysis I discovered an inherent flaw with the research question of "Can and how does the Ways of Seeing approach help to show the development of the therapeutic relationship?" I realized that the format of a clinical case study cannot answer if the Ways of Seeing can prove that the therapeutic relationship developed or not. What a case study can answer in terms of this research question is how the Ways of Seeing could help to show the development of the therapeutic relationship.

In the previous chapter I discussed my initial questions about my use of the intervention of mirroring and its effects on clients. In this study, to answer the third research question, I was able to not only identify my mirroring styles (defined in the

Ways of Seeing technique) I used with Jose but also to analyze his responses to each style of mirroring. Based on his responses I was able to identify a correlation between which mirroring style I used and the subsequent movement expressions of both of us which are expressed through the four themes. Mirroring allowed our basic movement introductions to eventually develop into these strong themes through the sessions. I found that too much modification of Jose's movements as I reflected them back, did not develop the themes we used together as much as when the movements were more directly mirrored.

The greatest areas of growth for me were realized as I analyzed the videos of the five sessions. The countless hours spent reviewing moments of our interaction expanded my appreciation for Jose. The opportunity to review, in such detail, every movement, breath, or shift in weight, is an experience that will stay with me for a long time. These experiences led me to a much deeper understanding of each of us, our relationship, and my use of the intervention of mirroring. In data analysis of session one I found that, I initially began using mirroring modified and mirroring exaggerated but changed to direct mirroring. The change to using direct mirroring came from my observations within the session (and sessions 2-5) as Jose responded more often to this type of mirroring. In addition, the ability to observe myself in the role of a therapist, analyzing my movement and intervention choices, is an opportunity that I have not experienced before. Reviewing the video and analyzing myself as a therapist from the perspective of a researcher, I found moments where I would now make different intervention choices. An example of this is during times of a movement dialogue, I changed my orientation in relation to Jose. Reviewing the video I found that this change did not come from a clear therapeutic intent, and appeared as disengagement. Another area of growth was the ability to focus solely on

the intervention of mirroring through five sessions with one client. I was able to

experiment with a range of mirroring styles to engage with Jose and eventually observed

this in greater detail when observing the videos.

Jose's movement repertoire and his ability to express connection grew as we

progressed in relationship. Jose was able to show his need for space through periods of

engagement and disengagement as well as, in the final session, by taking an active part in

determining the environment. Within the limits of Jose's capacity for engaging in

relationship, it was clear that our time together created a bond between us. This was

demonstrated by his continued desire to sit and lie in my lap, using me as a physical

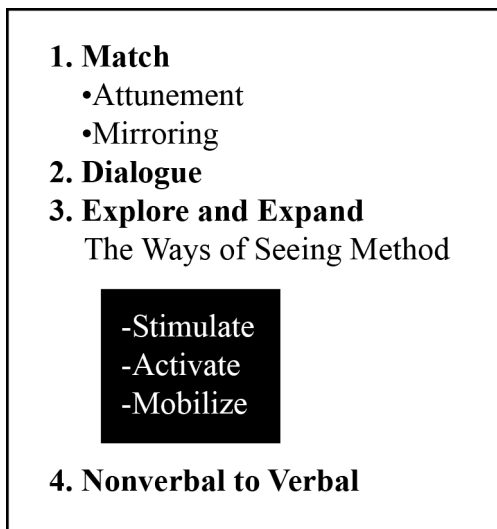container and resource for support.

Difficulties in Data Analysis

The most challenging aspects of the study emerged in data analysis. During this

stage I began analyzing our movements through LMA in great detail. I quickly

discovered that the videos needed to be edited to narrow the amount of data. Originally I

designed a coding sheet to be used while reviewing the sessions, but they did not provide

the appropriate data for comparing our movements to determine if mirroring had

occurred. Next I made a two-column list, in which I notated our movements, one column

for Jose's and the other for mine. This was to allow for a side-by-side comparison of our

movement qualities. After reviewing the lists, however, I found that it only provided

information about how the movement was done without information about what was

done. Thus, I added a narrative in order to tell the story of our interactions, which is how

I completed the full analysis of session one. The narrative format allowed for explanation

of what and how our dialogue progressed but also provided the description of the cause

and effect relationship that came from the intervention of mirroring.

After continuing through the next four sessions using less detailed narrative

explanations, my next struggle came from making sense of the "Ways of Seeing

Method." As demonstrated in Figure 1, the Ways of Seeing Method is a subset of the

Ways of Seeing Technique. Again, the *technique* seemed to focus on therapists' actions,

whereas the *method* focused on clients' actions/responses.

Figure 1. "The Ways of Seeing Technique"

1. Match
  •Attunement
  •Mirroring
2. Dialogue
3. Explore and Expand
  The Ways of Seeing Method

  -Stimulate
  -Activate
  -Mobilize

4. Nonverbal to Verbal

Nebulousness

The method seemed to be what I was seeking as a way to show development of

the therapeutic relationship; because it discussed the progression through therapy with

attention to the therapeutic relationship. However, I struggled to understand Tortora's

explanations of the method stages (Stimulate, Activate, Mobilize). Each stage seemed

vague. Rather than being described through language applicable to any session or

movement dialogue, they were written in terms of movement themes, relevant to a

specific example.

In addition, although the method was described through the use of a brief clinical example, this vignette was unclear. The session appeared to begin in the midst of Stimulation phase; in other words, Tortora did not reveal if or how she transitioned into Stimulation. Did the session begin in the Stimulate phase? Were there parts of a session that could not relate to or be identified with a stage of the method? Tortora did not discuss the difference between the interaction before the Stimulation stage and the stage itself, so these qualities that made up the Stimulation stage were the only determining factors and were not comparable to anything other than the following stages.

It had always made me uneasy that the *method* was described within the explanation of the *technique*. I worried that perhaps the method was possibly not as central to her theory as I was reading it to be, yet my study was originally reliant on this tool. Without access to any prior case studies using The Ways of Seeing, I had to find my own way and make my own connections, including the realization that Stimulate, Activate, and Mobilize are applicable at any time during a movement session (see Figure 2).

Figure 2. "The Ways of Seeing Method" as I grew to understand it
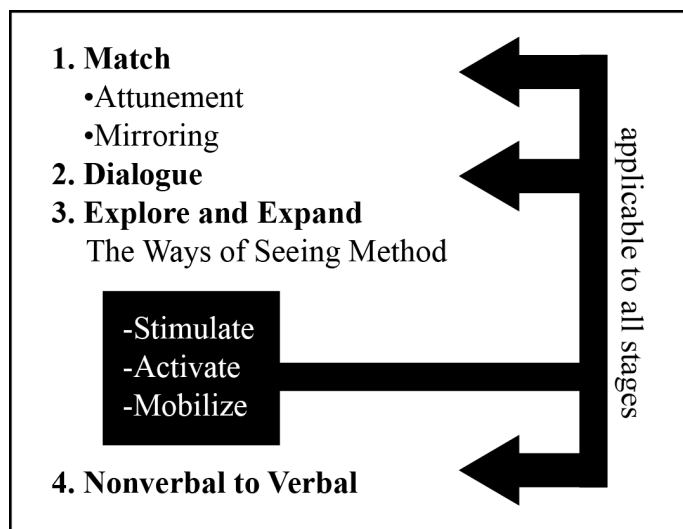
Finally, I found that the data collected of when and how I mirrored did not have a direct connection to the method. The method does not address mirroring or any intervention specifically. The method's focus is the overall outcomes of the intervention applied. After discovering this, I realized I needed to find themes of our movements that came from the interventions that could then be interpreted with the method. The movement themes of Proximity, Orientation, Touch, and Floor Pattern became the data that corresponded to the stages of the method. Some of the themes I had noticed during the sessions, like the floor pattern and his use of touch for support, became my focus for investigating the dialogue for themes.

Future Research

In future research, a concentrated look at how other categories of LMA (Body, Effort, and Space) could inform the understanding or analysis of two people in relationship is needed. When I first began analyzing the video through LMA, I was met with some clear difficulties. The category of Shape is often directly correlated to being in relationship. Many children with ASD that I have worked with use almost no Shaping whatsoever. The torso is often held, motionless; their movement comes from the limbs, in gestural and postural shifts. Jose moved in this way throughout most of the sessions. Knowing that Shape would not provide the adequate information, how was I supposed to assess Jose's ability to be in relationship if there was no Shaping to assess? I began looking for other LMA concepts that might show changes of being in and out of relationship. Tortora's Movement Signature Inventory gave many options for this and ultimately led to the development of the themes as a way to show this.

I would like to state here that Jose did use aspects of Shaping during our sessions. This was particularly shown in the times where he sat or laid in my lap. Only a few times, for only a brief moment, I could feel is spine relax as he softened his back into me. These moments were so brief and few and far between that shaping an entire study around them seemed impossible. Because of this I chose to focus on movement elements that could be observed more broadly, separate from Shaping. I feel it is important to acknowledge that these moments did occur, even outside of the complete analysis of our relationship.

Future studies using the Ways of Seeing method, without the specific focus on the intervention of mirroring, are needed to help define its proper usage for observing the development of therapeutic relationships within the context of DMT. Another suggestion for further research is to analyze the outcomes of mirroring over a longer period of time than five sessions. One final area of study that could be proposed is to explore when mirroring should be used in comparison to other interventions, such as attunement, with the population of ASD.

Conclusion

After the completion of this study, looking back, I am amused that I chose to deconstruct an interaction to determine if we were in relationship or not. Like much of the DMT literature I reviewed in preparation for this study that discussed mirroring, relationships depend on the participants; they change, fluctuate, and can often be vague and unexplainable. Attempting to find a language that provides the key, in order to say at any given time, "yes" we are relating, does not work, because relationships do not work in this way. What I was looking for when I began this study was to find a way to explain how someone with ASD, whose diagnosis says that he/she is unable to or have difficulty

to be in relationship, can and does actually spend a lot of time in relationship. I always

felt that the way the relationship was assessed (for someone with ASD), specifically

without attention to the individual's movement expressions, was what caused this aspect

of the diagnosis to exist. Without assessing the client's full experience and expression, a

clinician can miss a different way of relating from their own if the diagnostic language

does not address other ways of relating. By working with children with ASD from the

perspective of DMT I saw this inherent flaw and wanted to provide an example to

counter the common perspective.

What I have concluded and hopefully shown through this study is that a

relationship can develop between a therapist and person with ASD but it must be viewed

through the client's expressive ways of relating. Through DMT techniques, Laban

Movement Analysis and the Ways of Seeing approach this study was able to provide an

example where Jose's movement experience and expression could be observed, analyzed

and described so that the movement relationship between the two of us could be seen for

the reader. With descriptions of our movement dialogue intertwined with relevant

literature discussing relationship and the Ways of Seeing method the narrative was able

to provide evidence of a developing relationship through the lenses of the provided

literature. In the end, the movement dialogue was able to show how, through the

language of movement, a relationship can develop between a therapist and client with

ASD.

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Appendix A

Definition of Terms

The Ways of Seeing Technique

The Ways of Seeing Technique describes a dynamic framework that outlines the intentions of the therapist and stages of the development of the therapeutic process (Tortora, 2006). The stages of the Technique are Match, Dialogue, Explore and Expand, and Nonverbal to Verbal Expression. The first stage of Match involves two interventions used by the therapist, which are Mirroring and Attunement. attunement as "matching of a particular quality of another person's movement, but not completely depicting the entire shape, form, or rhythmic aspects simultaneously, as in mirroring" (Tortora, 2006, p. 259). Mirroring is defined as "literally embodying the exact shape, form, movement qualities, and feeling tone of a person's actions" (Tortora, 2006, p. 259).

The Ways of Seeing Method

The Ways of Seeing Method consists of three stages that describe the co-created relationship that occurs from the application of the Ways of Seeing Technique during therapy. The Method follows three stages. In the first stage of Stimulate, which Tortora (2006) discusses as the child "exploring the environment (which could be understood as relationship) through self-discovery" (p. 263). The most important aspect of this stage of the Method is the child's "awareness of some aspects of the child's behavior" (p. 263). She continues to say that the "primary task of stimulation" is to "bring a child to an awareness" (Tortora 2006, p. 263). The second stage is Activate. Tortora's (2006) description of the Activation phase involves the "child taking an active part in the engagement to facilitate and develop the focused elements of the stimulations into

something new" (p. 265). The third stage is Mobilize which Tortora (2006) explains,

"Mobilizing a response enables a child to explore her body's moving further into her

surrounding environment. Mobilizing can involve actually moving through the room" (p.

266).

Effort

Laban describes Effort as volitional and thus the "inner domain" of human

movement (Moore, 2010). Effort is made up of the four motion factors of Flow, Weight,

Time and Space. Each of the motion factors contains opposing poles, which are referred

to effort qualities. Flow is the effort exerted to control movement. The effort qualities of

Flow are freeing flow and binding flow. Weight is the effort exerted to apply the right

amount of pressure. Weight's effort qualities are decreasing pressure and increasing

pressure. Time is the effort exerted to pace movement adroitly. The effort qualities of

time are decelerating time and accelerating time. Space is the effort exerted to aim and

orient movement. The effort qualities of Space are indirecting of space and directing of

space.

Appendix B

The Ways of Seeing: Movement Signature Inventory

Space

Description of use of Kinesphere:

Use of space/room:

Floor Pathways: Winding   Linear   Arcing   Spoking   Circular

Phrasing

Even   Increasing   Impactive   Decreasing

Increasing-Decreasing   Vibratory   ResilientAccented

Characteristics that puncuate phrasing

    Level/direction change   Body parts   Postural shifts

    Weight shifts   Effort   Pauses/Stops   Intent

Duration and changes in duration

    Short   Long   Multiple Pauses between/during

Efforts that support phrasing:

Body/Shape (*Body attitude toward space. Shaping relationship to self and other*)

Body Part Relationship

    Upper/Lower   Left/Right   Contralateral

Body Part Phrasing

    Successive   Simultaneous   Sequential

Shapes that the body makes

    Spiral   Arcing   Spoke   Straight   Concave/Convex

    Lengthening   Flow   Shortening   Shaping to objects/people

    Gathering   Pushing away

Shaping (external)   Shape flow (internal)   Both

Relationship

Kinesphereic relation

    Near to   Far apartFluctuating interpersonal space

    Touching   Overlapping   Separate

Contact

    Touching   Grasping   Supporting   Yielding

Relationship play

    With   Sharing Against

Facing and Orientation

    Eye contact   Relating to   Face to face   Alongside   Opposite

Describe Leading/following/contrasting pattern