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Mariah M. LeFeber

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# THE MOVEMENT'S MESSAGE: DANCE/MOVEMENT THERAPY AND CHILDREN WITH AUTISM

MARIAH MEYER LEFEBER

## INTRODUCTION

The sun shines in and warms the room, in spite of the frigid weather outside. I enter, arms full of scarves, balls, and music, to be greeted by the group. One child looks up briefly and then returns to flipping the lid in his hand. Another child runs around the room pretending she is a superhero, unaware of my presence. One girl looks at me from the corner, shifting between turning in towards the wall and back out at me to say repeatedly, “hi, hi.” A fourth child looks up at me from the floor, where he stops rocking for just a moment to catch my eye, before looking back down and continuing in his seamless motion.

Thus begins an hour of dance/movement therapy with a unique group of children. Upon first glance, it may seem that this eclectic crew does not have much in common, but beyond the rocking and the flying and flipping lies one common denominator – autism spectrum disorder. Each child is impacted by the myriad of symptoms and behaviors categorizing this disorder. In each of their own ways, they embody the characteristics – self-stimulating behaviors, sensory integration problems, communication challenges, and difficulties with social interaction, to name a few – but yet each of these children remains a distinct mystery. I walk into the room and bring movement with me, hoping this modality might allow me to unlock some answers and ultimately make a connection.

Movement is a language. For children affected by autism, movement may be the only language they can rely on. Children with autism often have limited verbal abilities, making it extremely difficult for them to reach out (Hartshorn et al., 2001). When words fail, dance/movement therapy fosters a child's ability to relate, communicate, and connect on a nonverbal level. This chapter will outline the use of dance/movement therapy with children on the autism spectrum. Specifically, it will introduce concepts of movement analysis and examine the potential in using movement-based assessments to create therapy goals and movement interventions for practical application.

This chapter includes case studies of two females (ages 3 and 11). These individuals receive services for autism-related diagnoses at a treatment center for children on the spectrum. The case studies will focus on the movement qualities and challenges unique to children with autism. Laban Movement Analysis, a complex system used to observe, describe, notate, and understand movement patterns (Hackney, 2002), will be introduced and used to decipher the movement profiles of the case study females. Dance/movement therapists are trained to observe and assess movement using this system and then make therapeutic interventions using their movement analyses. The other half of their clinical training is psychotherapeutic in nature. In a related but divergent vein from dance/movement therapy training programs, certified movement analysts complete comprehensive movement analysis programs where the observation and assessment of movement is at the core of their studies. For the purpose of the case studies described here, a Certified Laban Movement Analyst (CLMA) provided analyses, in addition to my own, in order to both enhance and provide reliability for the work. Portions of these analyses will be examined to discuss the use of formal movement analysis as an instrument for creating treatment goals.

## **CHILDREN WITH AUTISM**

Autism is a lifelong developmental disability in which individuals present with abnormalities in the areas of socialization, communication, and the display of bizarre repetitive behaviors (American Psychiatric Association, 2000). The severity of symptoms varies greatly in each child (Hartshorn et al., 2001). Although the symptoms vary for each individual, some salient characteristics of the disorder emerge in affected individuals. The first is self-stimulating or perseverative behaviors, such as rocking, hand-flapping, or spinning in circles. Many will also experience difficulties with speech and language, for example individuals with autism are much more prone to



Figure 15.1. A child expresses herself through full body movement during a dance/movement therapy session.

echolalic speech patterns (repetition of vocalizations made by others) versus the use of their own spontaneous language (Morrison, 2001). Some affected may experience motor difficulties, ranging anywhere from toe-walking to a constant need to spin or swing to regulate their vestibular systems. Others may struggle from an inability to imitate observed movements. Lastly, many individuals with autism wrestle to integrate their sensory experiences and may have especially sensitive visual, auditory, or tactile reactions (Erfer, 1995).

Dance/movement therapy, which uses movement as a “universal means of communication” is an effective form of communication for children with autism, especially those with underdeveloped speech skills (Erfer, 2005, p. 196). Dance/movement therapy provides the space for these children to explore and discover their bodies while unlocking their potential for creativity. Children are encouraged to find themselves in a supportive environment where there is no “right” way to express or create (Canner, 1968).



Figure 15.2. Two nonverbal clients relate through movement. Their body language and shared joy in this activity both serve as the vehicles for communication and mutual connection.

## **DANCE/MOVEMENT THERAPY**

As defined by the American Dance Therapy Association (ADTA), dance/movement therapy is “the psychotherapeutic use of movement as a process which furthers the emotional, social, cognitive, and physical integration of the individual” (American Dance Therapy Association, 2008). Dance/movement therapy emerged as a discipline during the 1940s and is an effective treatment for people with developmental, medical, social, physical, and psychological impairments (Levy, 2005). This expressive form of therapy is a bridge linking creative expression and psychological theory (Kestenberg et al., 1999).

In application, dance/movement therapy fosters socialization and communication in children who otherwise might find it difficult to relate. The ability to engage through nonverbal activity sets dance/movement therapy apart from other forms of therapy. It creates an affirming environment for children, where they are able to experience the value of belonging. Ultimately, dance/movement therapy provides both a bridge for contact and

a medium for reciprocal communication for children with autism (ADTA, 2008).

A few basic principles form the guiding theory of dance/movement therapy. These overarching tenants of the field include the belief that: behavior is communicative, personality is reflected through movement, changes in movement will eventually lead to changes in personality, and lastly, the larger an individual's movement repertoire, the more options individuals have when it comes time for them to cope with the environment (Kestenberg et al., 1999; Meekums, 2002). The actual practice of dance/movement therapy relies on the observation of movement behavior as it emerges in relationship, more specifically the therapeutic relationship between client and therapist. Dance/movement therapists are trained to understand, reflect, and eventually expand on the nonverbal expression of their clients (Adler, 2003). A consistent, supportive, and accepting atmosphere is used to begin the process of relationship formation, along with the following: mirroring (reflecting rhythms, patterns and vocalizations expressed by the client), eye contact, touch, vocalizations, props, and rhythmic body action (ADTA, 2008; Erfer, 1995). In particular, props can be helpful with this population because they are very concrete and tangible, thus serving as a connecting medium between client and therapist.

In addition to the mirroring technique mentioned above, the approaches of both attunement and Shape-Flow Adjustment (from the Kestenberg Movement Profile) help build the therapeutic relationship and augment the therapist's ability to make clinical choices. As described by Loman (1995), "attunement is based on sharing qualities of muscle tension, and Shape-Flow Adjustment is based on a similarity of breathing patterns and shape of the body between individuals" (p. 222). Within the therapeutic relationship, attunement builds a sense of empathy between therapist and client, while Shape-Flow Adjustment builds trust in the relationship (Loman, 1995).

While each child with autism presents with specific needs and challenges, a handful of goals are generally applicable. The first is to increase sensory motor and perceptual motor development, directly targeting the motor deficits often faced by children with autism spectrum disorder (ADTA, 2008; Erfer, 1995). By working from both a functional and expressive standpoint, dance/movement therapists can use simple vocabulary and movement to stimulate perceptual, gross, and fine motor skills. An example of this would be teaching children the perceptual concept of "in and out" by having them physically step inside of a space (i.e., a hula hoop) and then outside of that same space. Through the gross motor movement, the children experientially learn the concept, which can then be generalized to other areas.

The second goal for dance/movement therapists is to help clients improve their socialization and communication skills. As the therapeutic relationship

builds, clients increase their ability to interact as part of a group and communicate (verbally or nonverbally) within that group. Steps toward these goals include: increasing eye contact, participating in shared rhythmic activities with engagement (and independently whenever possible), recognizing and responding to group members, increasing proximity to the group, decreasing a need for interpersonal distance, developing trust, and forming an understanding of “self” as opposed to the “others” outside of the self (ADTA, 2008).

Although these social and communication goals can be met through several modalities, dance/movement therapy is unique because the steps towards these goals can all be experienced on a kinesthetic level. For example, in group rhythmic activity, group members move together with similar rhythms, intensities, and physical tensions. This extension of movement throughout the body helps a client to integrate what may be a fragmented sense of self (Levy, 2005). Moving small movements into total body activity helps build cohesiveness and a sense of grounding not only for the person as an individual, but also for their identity as a group member. The similar rhythmic and movement patterns allow each client to feel that they belong on a nonverbal level.

Thirdly, building off the growing understanding of self versus others, dance/movement therapy works to foster body awareness and nurture a client’s personal self-concept. By reflecting a child’s movement nonverbally and then translating what is seen into simple language, the dance/movement therapist positively verbalizes how the child appears, inherently improving his/her body awareness or body image. The simple verbalizations, or the “noticing” of what is going on, also help to structure the experience for the participant (Loman, 1995). As an added benefit, this verbalization of action naturally increases the movement repertoire of the client (applicable to goal one), as he/she is exposed to not only the conscious experience of their own movement but also that of the others in the room.

“Body image is one of the most fundamental concepts in human growth and development and one that appears to be lacking in children who are autistic” (Erfer, 1995, p. 197). Standing behind this concept, body awareness and a positive body image are imperative as the two combined form a foundation for a basic understanding of the self. Not only does the development of body awareness parallel sensorimotor development, the movement experience also helps children to orient to their space, their own bodies, and the others in the room. This orientation occurs on both an internal (self to self) and external (self and others) level. Because body image is formed from input from the vestibular, kinesthetic, proprioceptive, visual, and tactile systems, movement is an all-encompassing medium for the development of an individual’s self-concept (Erfer, 1995).

Prior to working on the above goals, the initial, and overarching goal for dance/movement therapists working with autism is to reach out and meet a child at his or her functioning level. Once this relationship has been established, it serves as a consistent guiding principle behind the work and emerges in the balance between the physical and relational. In the dance/movement therapy setting, relationships occur as a byproduct of the body in action and physical movement flourishes because of the trust built within the therapeutic relationship. When the physical and relational aspects of the work are in balance, movement truly can serve as a language for universal communication.



Figure 15.3. A child experiences a sense of his own body in space, developing both his sense of personal body awareness as well as an understanding of himself in relation to others – himself as inside the Hoberman Sphere, and others as outside of “his space.”

## MOVEMENT ANALYSIS

Dance/movement therapists use movement analysis to determine how a person is relating, expressing, and experiencing on a nonverbal level, exem-



plifying Irmgard Bartenieff's theory that "inner connectivity breeds outer expressivity" (Hackney, 2002, p. 34). Dance/movement therapists also use movement analysis to plan and guide their therapeutic interventions, consequently increasing emotional connectedness for individuals who struggle to unify their inner and outer selves. When working with autism specifically, dance/movement therapists may also use movement analysis to identify movement deficits in order to improve functional movement skills.

In the early 1900s, Rudolf Laban began laying the groundwork for what would eventually become the comprehensive system of Laban Movement Analysis (Levy, 2005; Newlove & Dalby, 2004). In the 1950s, Laban's work was incorporated by English dance therapists to be used therapeutically. Once integrated, the system provided a language for therapists who were looking to describe patient movement in an accessible format (Levy, 2005).

As it is known today, Laban Movement Analysis (LMA) is a complex system used to observe, describe, notate and understand movement patterns. The system is widely used, especially in the field of dance/movement therapy. The Basic Efforts are one part of Laban's multifaceted system and help the observer to understand the subtle characteristics and intention that define a movement. The Basic Efforts have four categories, each defined by two polarities: one's attitude toward space (directing or indirecting), weight (strong weight/increasing pressure or light weight/decreasing pressure), time (quickness or sustainment), and flow (binding or freeing). In addition to the Basic Efforts, the categories of space, weight, and time combine to form Action Drives, descriptively named float, punch, glide, slash, dab, wring, flick, and press (Newlove & Dalby, 2004). Remaining in the system are the categories of Body and the Patterns of Total Body Connectivity, which will be discussed further.

Irmgard Bartenieff played a large role in the application of LMA to the field of dance/movement therapy (Bartenieff & Lewis, 1980; Levy, 2005). Bartenieff, a dancer and physical therapist, combined concepts from both LMA and physical therapy to create her own approach to movement, the Bartenieff Fundamentals. In essence, the Bartenieff Fundamentals are an approach to body movement and movement education that develop movement efficacy and expressiveness. Bartenieff stressed the importance of viewing movement as a complex, interrelated whole. The Fundamentals emphasize both activation of the physical body and motivation from inner impulse as ways to integrate physical and emotional needs. In her work, Bartenieff implored clinicians to look at an individual's total movement profile while placing emphasis on their potential movement expression. She also cautioned therapists away from pointing out a client's movement deficits, but rather engaging the client nonverbally in activities that would draw out any

diminished movement (Levy, 2005). As Bartenieff saw it, the therapist was responsible for “finding the correct activities that supported the development of specific muscle systems, which, in turn, affected certain emotional attitudes” (as cited in Levy, 2005, p. 115).

Following the work of Laban and Bartenieff, Judith Kestenberg elaborated on the LMA system by approaching the work from a developmental perspective (Kestenberg et al., 1999). The result of this research, the Kestenberg Movement Profile (KMP), supports the assumption that “movement patterns have the potential to reveal a host of nonverbalized states and feelings” (Kestenberg et al., 1999, p. 1). The KMP provides several tools for dance/movement therapists, including: a method for labeling and categorizing elementary movement qualities, a system for psychological assessment (through the observation and analysis of movement), a theoretical framework for looking at and interpreting movement experiences, and a framework for the prevention and treatment of a wide range of physical, cognitive, and psychological problems (Kestenberg et al., 1999, p. 2).

Movement analysis is a broad and extremely complex field that allows dance/movement therapists to complete holistic movement observations of an individual’s entire way of interacting with his/her world through movement. Due to this vastness, for the purpose of this chapter, the focus will be primarily on the component of *Patterns of Total Body Connectivity* (PTBC). The PTBCs, a concrete and structured system, are inherently developmental and body based in nature. Due to these factors, the lens of the PTBC will allow you, as the reader, a clear demonstration of how movement analysis and dance/movement therapy work in action.

## **PATTERNS OF TOTAL BODY CONNECTIVITY**

Irmgard Bartenieff is often credited for much of the work done in the LMA category of “body” (Hackney, 2002; Levy, 2005). Out of her Fundamentals and the ongoing work of certified movement analysts evolved the Patterns of Total Body Connectivity, which “form the basis for our patterns of relationship and connection as we live our embodied lives; they provide models for our connectedness” (Hackney, 2002, p. 13). Each Pattern of Total Body Connectivity is representative of a specific level of human development and experience, in addition to a relational component. While the patterns progress developmentally (beginning with Breath and progressing towards the final Cross-Lateral connectivity), Bartenieff believed that if needed, an individual could return to earlier patterns at any point to address weak or underdeveloped foundations of movement (Bartenieff & Lewis, 1980).

The goal in the realization of all six Patterns of Total Body Connectivity is that through them the individual will experience lively interplay between their inner and outer selves, with “inner connectivity breeding outer expressivity” (Hackney, 2002, p. 34). In other words, increasing an individual’s functional movement skills will eventually allow them a greater range for and capability of personal expressivity.

Assumptions about the underlying tenants of movement rest at the foundation of the body connectivities. The first tenant is understanding that as we move we change and change is thus fundamental. The second understanding is that relationship and connection are also fundamental – by moving and changing in relationship to others we experience our embodied selves. Third is the underlying assumption that a patterning of body connections is fundamental; people will develop certain preferences and patterns that dictate how they move and thus relate to the world (Hackney, 2002).

With these ideas in mind, we will take a brief look into each of the six Patterns of Total Body Connectivity. The first pattern is *Breath*, which provides the foundation and grounding for all patterns that follow. Breath is the key component to life and also necessary for our ability to move and experience rhythm. As the first developmental connectivity in babies, it provides a base as the most basic life force (Hackney, 2002). Breath can be observed and brought to conscious awareness using a variety of breathing techniques and activities. When working with children, imagery plays a large role in building breath support. Examples of this may include providing a visual of a balloon and then practicing blowing up that balloon, pretending to blow out candles on a birthday cake, or flapping ones arms to “fly” while inhaling (arms up) and exhaling (arms down) in connection with the flapping motions.

The second pattern is the *Core-Distal* connectivity, described psychologically by Hackney (2002), “before I can confidently move on my own in the world, I need to have a sense of my own center . . . in other words, I have to feel connected within myself and able to claim my own movement sphere (kinesphere) before I feel comfortable moving in the world” (p. 67). This pattern of connectivity begins at the center, or core, of the body, and radiates all the way out to the far distal ends of the extremities. Conversely, this connectivity also explores the pathway from the distal ends of the body back to the core. The pathway from core to distal develops an individual’s understanding of an outer environment. Movement from distal to core implies an ability to process and internalize self in relationship to a newly discovered other, or outer (Hackney, 2002). Psychologically, Core-Distal is symbolic of an individual’s ability to individuate and integrate, bringing his/her many moveable parts back to the core. This combination of individuation and integration also allows an individual to explore the concepts of inner and outer

sensations and experiences. To visualize or experience this connection, imagine standing in a big X shape with energy radiating out from all four limbs and the top of the head, and then curling in to bring your elbows, head, and knees towards your stomach.

Moving on, the next pattern is the *Head-Tail* connectivity. This is an important connection because our head and tail are in ever-changing, constant relationship through the connection of our spine. People with strong Head-Tail connectivities know themselves and how to carry and move their bodies in the world, proclaiming a sense of “this is who I am.” An integration of this connectivity provides an individual with the confidence to explore and follow their own imagination or creative impulses in a variety of situations. To experience the Head-Tail connection, imagine yourself moving with a large exercise ball. Think of sitting on the ball and bouncing slightly or shifting from side-to-side. As you complete these simple motions, notice the stream of movement that originates at the sit bones and flows all the way up the spine and to the top of the head. This fluid relationship is ever present between the head and the tail.

When individuals move on to develop their *Upper-Lower* connectivity, they are beginning to differentiate in their bodies, understanding that some parts of the body fulfill certain functions and others fulfill different functions (i.e., walking with my lower body and writing with my upper body). In this pattern, movement is homologous, as the upper body moves together (reaching up to the sky or reaching out to someone in order to be picked up) and the lower body moves together (bending knees in preparation for a jump, positioning oneself in a wide stance in order to stand firm while twisting with the upper body). Some psychological implications of understanding the Upper-Lower connection include: knowing how to support ourselves, the ability to push away and set boundaries, standing on our own two feet and claiming personal power, activating the lower body in order to move forward (physically and emotionally), and lastly, activating the upper body to reach out into the world and interact, all the way maintaining the lower body’s grounded connection to the earth (Hackney, 2002).

Next comes the *Body-Half* connectivity, where the Upper-Lower connection unites and instead the body splits into sidedness – right and left sides. This splitting into right and left underlies our brain patterning in sidedness, or handedness. Functionally speaking, one side of the body practices stability and the other mobility, while psychologically this splitting is related to our ability to clarify, evaluate, and make decisions. Body-Half is often about looking at two angles and weighing the options, which is where the polarities associated with the pattern come into play. Using the Body-Half connection, individuals can examine the polarities of yes versus no, alone versus together, or being versus doing, to name just a few (Hackney, 2002). Activities

where children experience polarities – i.e., legs open or legs closed, being with someone else and then being alone – increase an understanding of Body-Half on a psychological level. Meanwhile, crawling like a lizard helps the child experience the Body-Half connection physically.

The final connectivity, *Cross-Lateral* connectivity, is the last to develop and the most complex pattern. The Cross-Lateral connectivity looks at the body in quadrants and examines the diagonal connection of the body, i.e., the connection between the right upper body and left lower body. Hackney (2002) refers to this final phase of differentiation as the “zenith of early childhood movement skills” (p. 198). When a child learns to crawl, he/she begins in a Body-Half “army crawl” (right arm moving with right leg) and then develops to crawling Cross-Laterally (right arm and left leg forward). This Cross-Lateral crawl eventually develops into a Cross-Lateral walking motion, but practicing the crawl at any age (with an encouraged addition of creativity, i.e., turning oneself into a lion crawling in the jungle) will support the development of this pattern of Cross-Lateral connection.

In the Cross-Lateral connection, spatial sequences of closing and opening occur in movement. In addition, movement in this pattern supports a person’s ability to conceptualize complex relationships or even interrelationships and think about how ideas are connected in complex, multifaceted ways. The achievement of the Cross-Lateral connection symbolizes integration, connecting the whole body with all parts in relationship (Hackney, 2002). With a base understanding of the six Patterns of Total Body Connectivity in mind, as well as the importance of the relationship between each connectivity, we can progress to the case study examples. The case studies will discuss the PTBCs as they relate to creating treatment goals for children on the autism spectrum.

## EVA

Eva is a three-year-old female with autism spectrum disorder. I met Eva at the age of two years and four months, shortly following her initial diagnoses. At this point, Eva was entirely nonverbal and was learning to communicate using a few signs. She lacked imaginative and functional play skills and was easily distressed. Eva would begin crying at the onset of a day and not be able to recover from this distress without long and recurrent periods of swinging.

Eva went through a lengthy period of adjustment at the onset of her therapy where she experienced distress and anxiety, evidenced by a great deal of crying and inability to remain with peers in the group setting. After work-



Figure 15.4. A client practices the use of her Upper-Lower connectivity by jumping with the aid of inflatable sensory equipment.

ing through this period, it became obvious to therapists that Eva loves movement and music. Eva is especially skilled at imitating movement, even when her imitation skills are lacking in other areas (i.e., imitating ways to functionally play with an object or toy). Six months after she started treatment, I worked with a CLMA to conduct a formal movement analysis on Eva. This analysis displayed Eva's preferential movement signature, and for the sake of clarity, I will discuss two of the most emergent and salient qualities (as related to the PTBC).

At the time of the initial assessment, none of Eva's six PTBC's appeared to be either fully developed or used to their potential. In this first analysis, Eva's Core-Distal connection stood out the most when watching her movement, in particular her interesting and strong awareness of her distal ends (i.e., being fascinated by sign language song actions or watching her feet move by tapping her toes) while lacking the full connection between her distal parts and her core. Thus, Eva seemed to have a strong understanding of her distal parts – both hands and feet – without any awareness of or ability to connect these parts back into her core and the center of her body and self.

In addition to the relationship between her distal and core parts, Eva also lacked an Upper-Lower body connection. This was possibly most evident

through her lack of homologous body awareness and motor skills. By her third birthday, Eva had not yet achieved the gross motor skills of either running or jumping with two feet, typically beginning to develop by the age of 24 months and fully developed by 36 months (World Health Organization, 2008). She would carefully observe peers jumping and try to mimic their movement with little ability to motor plan and yield-push her body into the floor in order to reach and pull her body into a jump.

At this point, Eva's inability to jump was possibly connected to the lack of time she spent exploring the weight efforts of light and strong weight. Eva had a preference for the space effort and would spend a great deal of her time observing others using space efforts, both indirecting and directing. While found mostly residing in and focusing on her relationship to space, Eva spent little time paying attention to her relationship with weight, i.e., her ability to use her own weight to press into and then off the floor in a jump. Additionally, Eva advanced forward in space by leading from her torso or mid-section, with what looked like little awareness for the functionality of using her lower body in order to mobilize.

With these observations and others in mind, movement goals were created for Eva. Her initial goals focused on increasing her awareness of both the Core-Distal connection (specifically her core) and the homologous movement affined to the Upper-Lower connectivity. Following the first observation, Eva participated in group dance/movement therapy two times a week for one-hour increments. During these sessions, a variety of interventions and modalities encouraged Eva to explore movement in her goal areas.

In her dance/movement therapy groups, Eva completed a body warm-up that was structured using animal movements that activated the six PTBC's in a developmental progression. For example, she would begin by breathing and moving like a butterfly, inhaling as she lifted her arms and exhaling as she brought her arms back down to her side. Next, she would move to reaching her head, starting from an inwardly tucked position and moving outward like a turtle coming out of its shell. She might also explore the relationship to her spine by pretending to dive like a dolphin. These movements activated her Head-Tail connection. This progression would continue all the way through to the Cross-Lateral connectivity. For Eva, attention was paid to all connectivities but especially to Core-Distal (where she might grow like a starfish, from the center of her body out to a big X shape and then back to the center) and to the Upper-Lower connectivity, where she swam like a fish using first arms, then legs, and then arms and legs together. It is important to note that visual pictures of each animal were used when completing the body warm-up, beneficial for a population that depends a great deal on visual cues in order to understand group routines and expectations.

Helping Eva to build her body awareness also led to her further integration and development. Each day in dance/movement therapy, she would first “find” and touch her knees, and then practice bending her knees, eventually leading to a full body bounce. With this new awareness and ability to activate her lower body, Eva was able to conceptualize and then physicalize the motor planning necessary to bend her knees to yield onto the ground and then push off into either a run or jump.

Lastly, Eva grew to love yoga, and the integration of yoga poses into her dance/movement therapy routine allowed her to visualize and integrate diversified movement concepts. Eva, both visually and kinesthetically astute, was able to look at a picture of a yoga pose and then manipulate her body into that pose independently. Poses such as a “sunflower” breathing pattern and the “cow and cat” poses in an oscillating pattern helped Eva to locate and activate the core of her body.

Six months after the initial assessment, a second movement observation was conducted. The analysis showed that Eva had made significant strides in these movement goal areas. By month three she was running and jumping, first with physical support (i.e., holding hands to run or hands on the knees to show her where to bend before a jump) and then entirely independently. By month six, Eva was integrating yielding movement throughout her whole body. In learning to yield onto the ground, Eva was increasing her relationship to the weight effort and her ability to yield was beginning to give her freedom of movement in her hips, which had been bound (or tight) before and hindered her ability to explore her Upper-Lower connectivity. Eva’s twisting and free flow movement, as well as connection to her breath support, were indicative of her growing sense of contentment with her environment. In addition to these movement developments, during the six-month period, Eva progressed quickly in many other areas. Most notably, she went from being almost entirely nonverbal to blossoming and communicating primarily through verbalizations. Thus, Eva’s communication development exemplified Bartenieff’s theory that inner connectivity breeds outer expressively.

## **GABBY**

Gabby is an eleven-year-old female with a formal diagnosis of global cognitive delay with pervasive developmental disorder – not otherwise specified, microcephaly, low muscle tone, and speech apraxia. In addition to this, Gabby has had three eye surgeries to correct her crossed eyes (nystagmus) and lazy eye (amblyopia), after which she relearned depth perception.





Figure 15.5. This individual engages in the movement by clapping her hands and rocking her upper body forward and backward using quick time motions.

Gabby attends a charter school treatment program where she currently receives group dance/movement therapy two to three times a week. Gabby and I met and began dancing when she joined the program. It was clear from my first interaction with Gabby that she was a dancer. She made repetitive requests for music and as soon as the music came on she began uninhibited and passionate movement around the space. In addition, Gabby had a clearly defined movement signature. She preferred to move in the sagittal plane (the space directly in front of and behind the body) and often danced by clapping her hands and rocking her upper body in a forward and backward motion. Gabby used a great deal of strength, quick motions and direct intention when moving. At the onset of therapy, I mirrored Gabby's movement preferences in order to connect with her on a nonverbal level. I joined her in rocking, clapping, and moving through space with direct intention and in quick time.

When Gabby started dance/movement therapy, she was very hesitant to join the group. Initially, she spent a great deal of time observing from the side of the room. After one semester (the equivalent of four months), Gabby progressed to the point where she was engaging in group for the entirety of

the session, at times in close proximity to the group and sometimes, although infrequently, observing from the perimeter.

From the beginning, it was a challenge for Gabby to follow verbal or visual movement cues or imitate the movement of others. She was much more successful and comfortable in a space where she was able to express herself spontaneously and in her own timing. On several occasions, Gabby elected to observe an activity without physically participating and then one day or sometimes as much as a week later she would initiate the same movement or activity independently. This could possibly have been the result of Gabby's processing time, or perhaps her uncertainty at trying new things; undeniably it could also be a combination of the two factors.

At the time of Gabby's first movement observation, it was evident that she had a well-developed sense of her Upper-Lower connectivity. As noted, she loved to stand stable with her lower body and rock with her upper body and also loved bouncing or stomping/jumping with both feet at once. Meanwhile, Gabby did not display embodiment of a Core-Distal, Body-Half or Cross-Lateral connectivity. It was difficult to define Gabby's Head-Tail connection, and her awareness of her Breath appeared to be diminished but not entirely absent.

From the initial observation, Gabby's movement goals were developed and included: increasing her awareness and use of Breath and meeting her with her strong Upper-Lower connection in order to bridge that strength into an awareness of her Core-Distal connection. The eventual progression for Gabby would include utilizing the Core-Distal connection, along with other already established connections, to build her Body-Half connectivity.

To build Gabby's connection to and awareness of her breathing, she worked regularly to breathe with a Hoberman Sphere. The sphere, which opens and closes easily, became a metaphor for the expansion occurring throughout the torso when a person breathes deeply. Gabby practiced inhaling through her nose as she pulled the sphere open and letting the sphere close back to the smaller size as she exhaled through her mouth. Gabby integrated this skill enough to match her inhale and exhale with the movement of the sphere. Eventually, Gabby may be able to expand and contract her own body in a similar manner when breathing, embodying the movement of the lungs when respiring. Increasing Gabby's awareness of her breath also equipped her with a tangible and practical calming tool to use when feeling distressed or needing to physically slow down her system.

As stated, Gabby had a very clear sense of her Upper-Lower connection coming into the initial movement assessment. While she loved bouncing with both legs grounded, clapping her hands or stomping both feet simultaneously while sitting in a chair, this consistently homologous movement pointed out a diminished awareness of her Core-Distal and Body-Half con-

nections. By starting with the Core-Distal connectivity (which developmentally precedes the Body-Half connectivity), Gabby could practice bringing one arm or leg towards her center at a time. After mastering her ability to mobilize each limb independent of the others, Gabby may someday practice the full embodiment of bringing all four limbs towards her core simultaneously. Meanwhile, the ability to move and differentiate one limb at a time could help Gabby to build the underlying patterns needed to eventually move into sidedness, moving one side of her body independent of the other.

Gabby is a good example of the fundamental practice in dance/movement therapy of meeting clients where they are and moving forward from their strengths. She loves to move and has a clearly defined preferred movement signature. Moving from Gabby's strengths, i.e., her love for doing movement and mobilizing in the sagittal dimension, therapists can help Gabby to expand her movement repertoire and increase her awareness of other movement efforts and possibilities.

## CONCLUSION

As this chapter concludes, my hope is that the above theory, techniques, and case study examples have given you some insight into the use of movement observation in dance/movement therapy. Moreover, that beyond the theory and practice, you have been given examples which illustrate the power of movement as both a language and a therapeutic vehicle. This chapter has only skimmed the possibilities available when bringing movement into the lives of children with autism spectrum disorder.

The clear communication of emotions and needs can be extremely difficult for a child with autism. Reading the movements, or nonverbal language, of each individual child enables the therapist to better understand and attune to these emotions and needs. Beyond dance/movement therapy, an awareness of the child's movement informs *any* therapist working with the child. The movement has the power to speak for itself.

## Terms

*Attunement* – A dance/movement therapy technique used to build a sense of empathy between therapist and client. Attunement is achieved by sharing qualities of muscle tension when relating on a nonverbal level (Loman, 1995).

*Bartenieff Fundamentals* – Developed by Irmgard Bartenieff, the Bartenieff Fundamentals are an approach to body movement and movement educa-

tion that develop movement efficacy and expressiveness. The Fundamentals evolved from the integration of Laban Movement Analysis (see definition) and Bartenieff's career as a physical therapist, and emphasize both activation and motivation of the body as a way to integrate physical and emotional needs. The Bartenieff Fundamentals stress the importance of understanding movement as a complex, interrelated whole (Levy, 2005).

*Basic Efforts* – The Basic Efforts are one part of Laban's system and help the observer to understand the subtle characteristics and intention that define a movement. The Basic Efforts have four categories, each defined by two polarities: space (directing/indirecting), weight (strong weight/increasing pressure or light weight/decreasing pressure), time (accelerating/decelerating), and flow (binding/freeing). In addition, the categories of space, weight and time combine to form Action Drives, descriptively named float, punch, glide, slash, dab, wring, flick, and press (Newlove & Dalby, 2004).

*Bizarre Repetitive Behaviors* – Activities, interests and behaviors that are repetitive and abnormal in focus or intensity. These may include rituals or routines that do not appear to have a function, preoccupation with parts of objects (i.e., the wheels on a truck) or motor mannerisms, such as hand-flapping (Morrison, 2001).

*Patterns of Total Body Connectivity* – The concept of the six PTBCs was originally introduced by Rudolf Laban, and later developed further by both Irmgard Bartenieff and Peggy Hackney. These connectivities consist of: Breath, Core-Distal, Head-Tail, Upper-Lower, Body-Half, and Cross-Lateral. When working together in an integrated fashion, the six connectivities are believed to indicate both internal and external harmony. This harmony is also contingent on the belief that a sense of stability is necessary for mobility, and mobility in order to achieve stability (Hackney, 2002).

*Body-Half Connectivity* – The fifth in a series of six Patterns of Total Body Connectivity. Body-Half movement, which is split between right and left sides, underlies the brain patterns present in handedness, also known as sidedness (Hackney, 2002).

*Certified Laban Movement Analyst* – CLMA's are movement professionals that are certified in the observation, notation and description of Laban Movement Analysis. Individuals earn this title following an intensive program in movement observation and analysis.

*Core-Distal Connectivity* – The second in a series of six Patterns of Total Body Connectivity. The Core-Distal pattern of connectivity begins at the center, or core, of the body, and radiates all the way out to the far distal ends of

- the extremities. Conversely, this connectivity also explores the pathway from the distal ends of the body back to the core (Hackney, 2002).
- Cross-Lateral Connectivity* – The six and final in the series of Patterns of Total Body Connectivity, Cross-Lateral connectivity is the last to develop and the most complex pattern. This connectivity looks at the body in quadrants and examines the diagonal connection of the body, i.e., the connection between the right upper body and left lower body (Hackney, 2002).
- Dance/Movement Therapy* – As defined by the American Dance Therapy Association, dance/movement therapy is the “psychotherapeutic use of movement as a process which furthers the emotional, social, cognitive and physical integration of the individual” (American Dance Therapy Association, 2008, p. 2). Dance/movement therapists examine both the experience of moving and the significance of that experience for the mover. The dance/movement therapist is specially trained to observe the client’s movement patterns as “expressions of the intrapsychic, interpersonal, intersubjective and cultural realms of experiencing” (Mason, 2006 unpublished paper, p. 7).
- Head-Tail Connectivity* – The third in a series of six Patterns of Total Body Connectivity. The Head-Tail pattern illustrates the fact that our head and tail are in ever-changing, constant relationship through the connection of our spine. Embodiment of this connectivity underlies a basic understanding of oneself as an individual (Hackney, 2002).
- Hoberman Sphere* – A Hoberman Sphere is a structure resembling a geodesic dome that is capable of folding down to a fraction of its expandable size. It was invented by Chuck Hoberman, and has become popular in a plastic version as a children’s toy.
- Kestenberg Movement Profile* – The Kestenberg Movement Profile, created by Judith Kestenberg, was developed through the integration of Laban Movement Analysis and psychoanalytic theory. The KMP is a diagnostic motor profile that measures psychomotor development (Levy, 2005).
- Laban Movement Analysis* – Laban Movement Analysis (LMA) is a complex system used to observe, describe, notate and understand movement patterns. The system was devised by Rudolf Laban, and is widely used, especially in the field of dance/movement therapy (Newlove & Dalby, 2004).
- Shape-Flow Adjustment* – Shape-Flow Support, a system of LMA, is the baseline process of Growing and Shrinking that occurs during the overall process of breathing. Shape-Flow Adjustment, used with the Kestenberg Movement Profile, is based on the similarity of these breathing patterns and the resulting shape of the body between individuals. The attainment of similarity in Shape-Flow patterns through physical adjustment has the ability to build trust in relationships (Loman, 1995).

*Upper-Lower Connectivity* – The fourth in a series of six Patterns of Total Body Connectivity, Upper-Lower movement includes homologous movement differentiated by upper and lower body quadrants. When developed, this connectivity helps individuals to differentiate in their bodies, understanding that some parts of the body fulfill certain functions and others fulfill different functions (Hackney, 2002).

## MOVEMENT ASSESSMENT TOOL

Prepared by Mariah Meyer LeFeber, MA DTR

DATE: \_\_\_\_\_ ASSESSMENT #: \_\_\_\_\_ LOCATION: \_\_\_\_\_

MOVER:

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OBSERVER:

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### **I. Body Categories**

a. General Posture

i. rigid - flaccid - concave - convex - neutral

b. Body Attitude

i. pin - wall - ball - screw - tetrahedron

c. Phrasing affinities

i. even - accented - increasing - decreasing - swing - vibratory - resilient

ii. simultaneous - successive - sequential

d. Connectivities used/missing (circle or cross out)

i. Core-Distal - Head-Tail - Upper-Lower - body half - Cross-Lateral

## II. Pre-Efforts and Efforts of Movement

### a. Elements

	<i>indulging</i>	<i>max</i>	<i>mod</i>	<i>min</i>	<i>none</i>	<i>min</i>	<i>mod</i>	<i>max</i>	<i>fighting</i>
Space:	indirect	3	2	1	0	1	2	3	direct
Weight:	light	3	2	1	0	1	2	3	strong
Time:	sustained	3	2	1	0	1	2	3	quick
Flow:	freeing	3	2	1	0	1	2	3	binding

### b. Affinities (circle) and Disaffinities (cross out)

- i. weight (vertical)                      strong/sink                      light/rise
- ii. time (sagittal)                      accelerate/retreat                      decelerate/advance
- iii. space (horizontal)                      narrowing/direct                      spreading/indirect

### c. Pre-Efforts used/missing (circle or cross out)

- i. channeling - flexibility - vehemence/straining - gentleness - suddenness - hesitation

### d. Effort Actions Drive used/missing (circle or cross out)

- i. float - glide - wring - flick - punch - slash - dab - press

### e. Inner States used/missing (circle or cross out)

- i. awake (t/s) - rhythm (t/w) - stable (s/w) - dream (f/w) - remote (s/f) - mobile (t/f)

## III. Use of Space (can use tic marks)

- a. General dimension/plane of action:    sagittal                      vertical                      horizontal
- b. General level of orientation:                      low                      mid                      high
- c. Kinespheric reach space:                      near                      middle                      far
- d. Movement initiation:                      central                      peripheral                      transverse
- e. Movement pathway:                      centripetal                      centrifugal

#### IV. Use of Shape - KMP

a. Shaping in Directions:

i. across - sideways - down - up - backward - forward

b. Shaping in Planes:

i. enclosing/spreading - descending/ascending - retreating/advancing

c. Shape Flow:

i. Baseline breath support: used - not used

ii. Bipolar shape flow: narrowing - widening - shortening -  
lengthening - hollowing - bulging

iii. Unipolar shape flow: medial narrowing - lateral widening -  
lengthen/shortening down - lengthen/shortening up -  
bulging/hollowing back - bulging/hollowing forward

d. Directional: arc-like - spoke-like

e. Carving/Shaping: carving - gathering - scattering

#### V. Tension Flow

a. Tension Flow Rhythms

i. oral:	indulging (sucking)	fighting (snapping/biting)
ii. anal:	indulging (twisting)	fighting (strain/release)
iii. urethral:	indulging (run/drift)	fighting (start/stop)
iv. inner genital:	indulging (swaying)	fighting (surging/birthing)
v. outer genital:	indulging (jumping)	fighting (spurt/ram)

b. Tension Flow Attributes

i. even flow - flow adjustment - high intensity - low intensity -  
abrupt - gradual

#### VI. Interpersonal Relations

	<i>min</i>				<i>max</i>
a. Eye-Contact	1	2	3	4	5
b. Physical Contact	1	2	3	4	5
c. Boundaries	1	2	3	4	5

Notes:



## VII. Overall Notes and Observations

	<i>min</i>				<i>max</i>
a. Breath	1	2	3	4	5
b. Groundedness	1	2	3	4	5
c. Attention/Presence	1	2	3	4	5

Notes:

## VIII. Movement Goals

- a.
- b.
- c.

## References

- Adler, J. (2003). From autism to the discipline of authentic movement. *American Journal of Dance Therapy*, 25(1), 5–16.
- American Dance Therapy Association. (2008). Retrieved October 28, 2008 from: <http://www.adta.org/about/factsheet.cfm>.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). Text Revision (DSM-IV). Washington, D.C.: American Psychiatric Association.
- Bartenieff, I., & Lewis, D. (1980). *Body movement: Coping with the environment*. New York: Gordon and Breach.
- Canner, N. (1968). . . . *And a time to dance*. Boston: Beacon Press.
- Erfer, T. (1995). Treating children with autism in a public school system. In F. J. Levy, J.P. Fried, & F. Leventhal (Eds.), *Dance and other expressive arts therapies* (pp. 191-211). New York: Routledge.
- Hackney, P. (2002). *Making connections: Total body integration through Bartenieff Fundamentals*. New York: Routledge.
- Hartshorn, K., Olds, L., Field, T., Delage, J., Cullen, C., & Escalona, A. (2001). Creative movement therapy benefits children with autism. *Early Child Development & Care*, 166, 1–5.
- Kestenberg, J. A., Loman, S., Lewis, P., & Sossin, K. M. (1999). *The meaning of movement: Developmental and clinical perspectives of the Kestenberg Movement Profile*. New York: Brunner-Routledge.

- Levy, F. (2005). *Dance movement therapy: A healing art*. Reston, VA: National Dance Association.
- Loman, S. (1995). The case of Warren: A KMP approach to autism. In F. J. Levy, J. P. Fried, & F. Leventhal (Eds.), *Dance and other expressive arts therapies: When words are not enough* (pp. 213–224). New York: Routledge.
- Mason, M. (2006). *The process of change from a self-psychological perspective*. Unpublished article. Columbia College Chicago.
- Meekums, B. (2002). *Dance movement therapy: A creative psychotherapeutic approach*. London: Sage Publications.
- Morrison, J. (2001). *DSM-IV made easy: The clinician's guide to diagnosis*. New York: Guilford Press.
- Newlove, J., & Dalby, J. (2004). *Laban for all*. New York: Routledge.
- World Health Organization. (2008). Retrieved January 30, 2009 from: [http://www.who.int/childgrowth/standards/motor\\_milestones/en/index.html](http://www.who.int/childgrowth/standards/motor_milestones/en/index.html).