

Embodied Enactive Dance/Movement Therapy

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Abstract Dance/movement therapy may be conceptualized as an embodied and enactive form of psychotherapy. The embodied enactive approach looks at individuals as *living* systems characterized by plasticity and permeability (moment-to-moment adaptations within the self and toward the environment), autonomy, sense-making, emergence, experience, and striving for balance. Enaction and embodiment emphasize the roles that body motion and sensorimotor experience play in the formation of concepts and abstract thinking. A theoretical framework and a perspective on professional practice in dance/movement therapy are herein offered as influenced by interdisciplinary embodied and enactive approaches deriving from cognitive sciences and phenomenology. The authors assert that dance/movement therapy, enaction, and embodiment fruitfully contribute to one another.

Keywords Enaction · Embodiment · Phenomenology · Dance/movement therapy theory · Dance/movement therapy

From its very origin, the body–mind relation, interpersonal relations, and the relatedness of the person to the environment have been central to the clinical practice of dance/movement therapy, in which movement and dance as essential

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means of connectedness and communication are employed to promote the health of individuals, groups, and communities. A current challenge for dance/movement therapy as a field is to verbalize and develop its theoretical background (e.g., Cruz & Barroll, 2004) in dialogue with its rich and elaborated clinical practice. One way of doing so is to embrace and contribute to existing theoretical traditions that are in accord with dance/movement therapy principles.

Dance/movement therapy may be considered an enactive approach to psychotherapy. Enaction and embodiment are principles that match the theory and practice of dance/movement therapy. They rest on a phenomenological conceptualization of the living body and its fundamental meaning (Merleau-Ponty, 1962), and on an organismic rather than a computational understanding of our human condition (e.g., Lyon, 2006; Smith & Semin, 2004). Phenomenological and enactive theories have been embraced recently by the cognitive and social sciences because many researchers had noted that, in the past, their ways of approaching social phenomena had been too static, cognitive, molecular, and insufficiently experience-based.

More recently, phenomenological and enactive theories have been integrated more closely with psychopathological and psychotherapeutic knowledge (Fuchs, 2005; Fuchs, & Schlimme, 2009), as well as with a number of body psychotherapy approaches (Baer, 2000; Roehricht, 2000; Serlin, 1996), and the field of arts therapies (e.g., Buk, 2009; Winters, 2008; Koch, Morlinghaus, & Fuchs, 2007; Sheets-Johnstone, 2010). The isolation of certain elements of dance/movement therapy, such as kinesthetic empathy, body memory, or movement metaphor, have now been tied to embodied and enactive theories and found their place in a broader scientific framework.

Embodied and enactive approaches offer an important theoretical frame of reference for dance/movement therapy. We call this theoretical framework an embodied enactive approach, in accordance with two scientific traditions that recently have come together to emphasize the meaning of the body and movement for cognition, affect, and (inter-)action. The enactive approach dates back to the biological- and systems-based theories of Maturana and Varela (1984), and the embodied approach builds on a cognitive sciences background (e.g., Barsalou, Niedenthal, Barbey, & Ruppert, 2003), both going beyond a mere constructivist perspective. Both approaches use a phenomenological knowledge base and integrate neuroscientific findings. The embodied approach gives greater emphasis to the individual aspect, whereas the enactive approach emphasizes the interactional and environmental aspects of corporeal meaning, elements that had been marginalized by the cognitive paradigm.

Enaction and Dance/Movement Therapy

The field of dance/movement therapy has been evolving since its pioneers first started working with groups and individuals in the 1940s. Dance/movement therapy pioneers had preserved the communitarian, participative mode that dance and rituals have had since the origin of primitive human groups (Dosamantes-Beaudry, 2003; Sandel, Chaiklin, & Lohn, 1993). Every approach adopts a model of how the world

is conceived and a perspective from which life and knowledge are considered (*Weltanschauung*). The enactive approach, introduced by Varela, Thompson, and Rosch (1991), has a striking affinity with the basic principles of dance/movement therapy.

Dance/movement therapy focuses on movement as nonverbal expression, interaction, and communication (Levy, 1992). It is directly related to understanding humans and making sense of our behaviors on a nonverbal level. Movement, posture, gesture, and action are the first modes of expression in individuals and continue to be operative during our entire lives. *Enaction*, from the verb *to enact* or *to start doing* as well as *to perform* or *to act* (Varela, 2002), conceives of knowledge as action in the world. The world emerges or is molded; it is not defined a priori. Individuals know the world through their own actions, transforming themselves and the world at the same time that the world transforms them (Najmanovich, 2005; Varela et al., 1991). In this sense, enaction implies codetermination (Thompson, 2007), and interbeing (Varela, 1999). Enactive cognition emerges from the dynamic codetermination of self and other. The world is constantly being reconstructed by all living creatures.

The term *autopoiesis*, introduced by the biologist Humberto Maturana (Maturana & Varela, 1984, 1991), defines the nature of living systems as autonomous and operationally closed, i.e., the processes within them maintain their entirety and, at the same time, are structurally coupled within their environments, embedded in a dynamic of changes that can be named *sensory-motor coupling* (Maturana & Varela, 1984). This dynamic is continuous and considered to be the mode in which living systems operate by knowing and constructing the world. Maturana and Varela (1984) understood this idea as a *circular causality* independent of what comes first, “the chicken or the egg.” Maturana and Varela (1984) proposed that living systems create their lives at the same time that they acknowledge and recognize a pre-existent world.

In dance/movement therapy, Laban (1987), as well as Bartenieff and Lewis (1980), hold that movements or *effort dynamics* that have been developed by different animal species, including humans, shape their body structure while limiting and enabling an action repertoire. In turn, the body structure determines the species’ movement habits. Through the ages, human bodies have been shaped by the effort habits they have developed in their relationships to the environment. Following Maturana and Varela (1984), the subjective experience is indissolubly tied to its own structure.

As humans, we are epistemological knowledge-seeking beings. From the moment of birth, we *sense and make sense*, and by doing so we create the worlds we live in (Thompson, 2007; Frankl, 1953; Heider, 1958). Fischman (2009) wrote:

Enaction entails an epistemology of complexity that considers knowledge to be a constructive organic experience: In a single act, something is perceived, created, or transformed. This perspective integrates action, perception, emotion, and cognition. The term *enaction* synthesizes the effectiveness of dance/movement therapy, as it works on the repertoire of the patient’s movement patterns, bringing them to a conscious level, and offers an

unprecedented opportunity to expand this range through new “intersubjective experiences.” (pp. 35–36)

Embodiment and Dance/Movement Therapy

Embodiment refers to bodily phenomena, in which the body as a living organism, its expressions, its movement, and interaction with the environment play central roles in the explanation of perception, cognition, affect, attitudes, behavior, and their interrelations (Koch, 2006). Embodiment approaches assume that cognition and affect are grounded in sensorimotor processes and that knowledge and memory always include sensorimotor simulations; they are not mere abstract, amodal representations (Barsalou, 2008).

Embodiment approaches developed at the end of the 1980s and during the 1990s in anthropology (Csordas, 1988, 1990; Schepher-Hughes & Lock, 1987), robotics (Brooks, 1991; Pfeifer & Bongard, 2007), philosophy (Clark, 1997; Gallagher, 2005; Hurley, 1998), cognitive linguistics (Gibbs, 2005; Lakoff & Johnson, 1999), and, more recently, in psychology (Niedenthal, 2007; Niedenthal, Barsalou, Winkielman, Krauth-Gruber, & Ric, 2005; Smith & Semin, 2004). Based on the phenomenological tradition of Merleau-Ponty (1962), and on neuroscientific findings (Barsalou, 1999; Damasio, 1994; Gallese & Lakoff, 2005), embodiment practices alert us to the basic organismic processes and high plasticity of the living body. Embodiment approaches have replaced the computer metaphor of the cognitive science paradigm with an organismic understanding of the human mind and condition (Smith & Semin, 2004). This paradigmatic shift is echoed in the suggestion that embodiment can serve as a unifying perspective for psychology (Schubert & Semin, 2009).

Embodiment research has demonstrated that body feedback from movement can influence affect (Strack, Martin, & Stepper, 1988), attitudes (Caccioppo, Priester, & Berntson, 1993; Maass & Russo, 2003; Neumann & Strack, 2000; Schubert, 2004), and cognition (Mussweiler, 2006; Raab & Green, 2005), and that bodily “mapping” constantly occurs between humans (Bavelas, Black, Lemery, & Mullett, 1986; Buccino et al., 2001; Wilson & Knoblich, 2005). With the term embodiment, we refer to theories that understand the body and its movements to be an integral part of knowledge (Barsalou et al., 2003) and memory (Casey, 1987; Fuchs, 2010; Sheets-Johnstone, 2003). Working not from an enactive, but rather from a cognitive sciences’ framework—Semin and Cacioppo (2008) outlined a model of social cognition that goes beyond the traditional individual-centered analysis and conceptualizes social cognition as grounded in neurophysiological processes, distributed across brains and bodies, and manifested in the coregulation of behaviors. They introduced a theoretical framework for the processes involved in social interaction from joint perception to coregulation, following the principles of *synchronization* (Davis, 1982; Hall & Bernieri, 2001), *entrainment* (Clayton, Sager, & Will, 2004; Condon & Ogston, 1966), and *coordination* (e.g., Port & van Gelder, 1995).

Dance/movement therapy has been developed as a healing practice through the use of movement and dance as a medium for enabling communication, assessing where it is blocked, and intervening on nonverbal and verbal levels. Intuition and personal experience have led dancers, dance teachers, and physiologists to discover the meaningful connections between motivation, motion, and emotion (Levy, 1992). How did this happen? The answer is: through *experiencing* (Dosamantes-Alperson, 1981). Pioneers in the field have described how dance was part of their lives, how it promoted healing—a means of furthering well-being and self-discovery—and did so with different populations (e.g., Frieder Watlock, 1983; Koch, 1981; Schmais & White, 1981; Whitehouse, 1956). Some of dance/movement therapy's basic assumptions can be listed as follows: (a) dance is communication; (b) body and mind influence each other reciprocally; (c) emotion is expressed through movement; (d) art and aesthetic expression are resources for health; (e) the therapeutic relationship promotes trust through mirroring, attunement, and kinesthetic empathy; and (f) movement is presymbolic but paradoxically full of meaning (Levy, 1992). On this basis, the client can develop meaning, relate, and heal through movement.

Embodiment theory holds that human meaning grows from our organic, sensorimotor, and emotional transactions with the world. Our bodily-felt movements lead us to discover the environment precisely according to the nature of our anatomy. Meaning arises from a nonconscious preverbal level coupled with the perceptual recognition of other human beings, and given by intersubjective interaction (Varela et al., 1991). Codetermination is linked to the recognition of affect and emotion as cognitive modes. Phenomenological philosopher Mark Johnson (2007) suggests looking at felt qualities, images, feelings, and emotions that ground our more abstract structures of meaning making: “It is our organic flesh and blood, our structural bones, the ancient rhythm of our internal organs, and the pulsing flow of our emotions that give us whatever meaning we can find and that shape our very thinking” (p. 3).

Johnson (2007) synthesizes the basic assumptions of body-based meaning as follows: (a) there is no radical body/mind separation; (b) meaning is grounded in our bodily experience; (c) reason is an embodied process; (d) imagination is tied to our bodily processes and can also be a creative and transformative experience; (e) there is no radical freedom; (f) reason and emotion are inextricably intertwined; and (g) human spirituality is embodied.

These assumptions all mirror basic dance/movement therapy principles. The good news is that they are now grounded in scientific research (Homann, 2010; Winters, 2008), with complementary theories arising from different interdisciplinary fields, such as biology (Maturana & Varela, 1984, 1991), cognitive psychology (Barsalou, 1999; Niedenthal, 2007), cognitive linguistics (Gibbs, 2005; Lakoff & Johnson, 1980, 1999), phenomenological philosophy (Gallagher, 2005; Noë, 2004; Sheets-Johnstone, 1999, 2009, 2010; Thompson, 2007), neuroscience (Damasio, 1999; Gallese, 2003; Iacoboni et al. 1999), and developmental research (Lyons-Ruth, 1999; Stern, 1985, 2002; Thelen & Smith, 1994). In this way, the embodied enactive approach becomes a unified scientific, philosophical, aesthetic, and potentially spiritual perspective with internal coherence.

Participatory Sense-Making

In their seminal paper on participatory sense-making, De Jaegher and Di Paolo (2007) identified five core ideas of the enactive paradigm. These are the interrelated concepts of autonomy, sense-making, embodiment, emergence, and experience (De Jaegher & Di Paolo, 2007; Di Paolo, Rohde, & De Jaegher, 2007; Thompson, 2007; Thompson & Varela, 2001; Varela et al., 1991) that define the organizational properties of living systems. For humans—as “social animals”—we may also talk of a sixth core idea as that of *intersubjectivity* or *participation* (De Jaegher, 2010).

Autonomy

One of these properties is the constitutive *autonomy* that living systems hold by virtue of their self-generated identity as distinct entities, described above. “An autonomous system is defined as a system composed of several processes that actively generate and sustain an identity under precarious conditions” (De Jaegher & Di Paolo, 2007, p. 487). Autonomy is the precondition for intersubjectivity.

Emergence

According to Thelen and Smith (Smith, 2006), *emergence* is the temporary, but coherent coming into existence of new forms through ongoing processes intrinsic to the system. The coherence is generated in the relationships between the organic components and the constraints and opportunities offered by the environment. In this way, walking or reaching can be understood as emerging from multiple components interacting in real time. Thelen and Smith (1994) argued that crawling is not based in the genes or wired in the nervous system. It self-organizes as a solution to a problem (e.g., to move across the room, when the skeleton and muscles are not yet equipped for walking), later to be replaced by a more efficient solution. Development is thus a series of evolving and dissolving patterns of different dynamic stability (Smith, 2006).

On the interpersonal level, an enactive perspective holds that reality emerges as a coconstructed experience in which meaning is created at the same time that it is perceived and acted upon. It involves what dance/movement therapy calls mirroring and contagious behavior, interpersonal attunement, and clashing (unity and difference). It is related to encounter and disencounter. This perspective relinquishes the objectification of the self and uncovers the uniqueness of the living person. It understands consciousness as a mode of being, rather than a mental state.

Sense-Making

“Reaffirming the implications of autonomy, *sense-making* is an inherently active concept.... Sense-making is a relational and affect-laden process grounded in biological organization” (De Jaegher & Di Paolo, 2007, p. 488). For the enactive perspective, the making of meaning is consensually constructed, and reality is something we build by coming to agreements and shared values. By processes such

as mirroring, contagion, and differentiation, humans build worlds in accordance with their own body structures coupled with the environment. Through these processes, the possibility of empathy as the understanding of another's sensed experience emerges. Phenomenology (Fuchs, 2000; Husserl, 1952; Merleau-Ponty, 1962) investigates such subjective experience and can be seen as the basis of the embodied enactive approaches (Fuchs & De Jaegher, 2009; Gallagher, 2005).

Embodiment

For the enactive approach, cognition is embodied action. Varela et al. (1991), who laid the groundwork for an enactive cognitive science, stated:

We explicitly call into question the assumption—prevalent throughout cognitive science—that cognition consists of the representation of a world that is independent of our perceptual and cognitive capacities by a cognitive system that exists independently of the world. We outline instead a view of cognition as embodied action. (p. XX)

Embodiment is one of the principles of enaction, whereas the idea of enaction is not necessarily included in embodiment approaches. Embodiment and enaction are not restricted to humans. Many social animals build up coherences of significance by engaging in coordinated bodily activity (De Jaegher & Di Paolo, 2007).

Experience

Near the turn to the 21st century, Francisco Varela (1996) wrote:

Science and experience constrain and modify each other as in a dance. This is where the potential for transformation lies. It is also the key for the difficulties this position has found within the scientific community. It requires us to leave behind a certain image of how science is done, and to question a style of training in science which is part of the very fabric of our cultural identity. (p. 1)

Dance/movement therapy advocates the role of experiencing rather than analyzing. Action lays the groundwork of our being in this world. Through movement interaction, the dance/movement therapist and patient become conscious of the patient's ways of relating. Through experiencing, the patients become aware of their personal behavioral patterns at the same time they recognize new possibilities of *being with*, enlarging their relational repertoire. Space and time—as the basic and pervasive categories of movement—arise from experiencing. “Movements are at the centre of mental activity: a sense-making agent's movements—which include utterances—are the tools of her cognition” (De Jaegher & Di Paolo, 2007, p. 489).

Authentic movement and improvisational methods (Adler, 2002) elicit free associations in movement that guide the client to images, metaphors, and verbalizations that are helpful in the therapeutic process. Dyadic improvisation (Sandel et al., 1993) introduces mirroring, reciprocity, attunement, and clashes.

Themes such as leading and following, closeness and distance, strength and weakness, approach and avoidance, and degrees of tension and intensity emerge. Guided group improvisations bring forth group themes and group dynamics that can be worked with readily in the therapeutic context (Fay, Chaiklin, & Chodorow, 2009).

What we can experience in movement—what Husserl (1954) calls *kinesthetic consciousness*—is a challenge for our conceptualization and language. In order to reapproach this kinesthetic consciousness, we can (re)discover what it is like to “learn one’s body by being it” (Sheets-Johnstone, 1999, p. 360) and experience in movement, phenomena beyond the domination of mind over matter. In this way, we can re-experience what was important in our prereflective, preverbal times, the times not accessible to our conscious knowledge. We can go beyond the limits of our conscious memory and encounter the roots of our kinesthetic consciousness. This experience makes use of the *felt sense* (Gendlin, 1997), and the methodology of the authentic movement practitioners’ *non-judgmental attitude* (Adler, 2002), of what Buddhists call *pure attention* (Varela et al. 1991), and phenomenologists call *epoché* (from the Greek *ἐποχή*, *suspension*) which describes the method of *bracketing*, i.e., observing and describing with a nonjudgmental attitude toward the experience (Husserl, 1954). It provides a methodological challenge to our experimental and other quantitative scientific methods—which only become meaningful if we have first reflected on our problems on the basis of our actual authentic experience. In practice, preceding the use of experimental and quantitative methods, the experiential method can lead to an initial clarification of research questions and creative hypothesis building.

Relation to Clinical Concepts

First and foremost, *enactivism* is a confirmation of the practice of dance/movement therapy in reference to the integration of body and mind through movement and meaning. *Enaction* confirms that focalizing and implementing movement bound to verbal language in psychotherapy is a natural consequence of attempting to understand human experience. Dance/movement therapy has shed light on intersubjective, sensory–motor emotional cognition since its origin. It has acknowledged cognition in its different expressive and evolving modes. Dance/movement therapy focuses on the foundation of meaning built through shared intersubjective experiences, and thus makes us living, sensitive, and creative human beings.

Therapy means treatment of disease or disorders through some remedial, rehabilitating, or curative process. Trauma is a body wound or shock produced by sudden physical injury as, for example, from violence or an accident or an experience that produces psychological injury or pain (van der Kolk, 1994). Therapy works by resignifying experience, allowing the re-establishment of the capacity to unfold the flow of life, melting the obstacles that have been blocking the free development of the self and the self-other relations in the world (Fischman, 2009). Dance/movement therapy focuses on the experience of *movement sensing*

and on *how movement makes sense*. The dance/movement therapist gets empathically involved in an intersubjective experience that is *rooted* in the body and works toward a resolution (Fischman, 2009).

As a therapeutic mode, dance/movement therapy goes to the roots where “image schemas,” as described by Johnson (1987), emerge. Following Lakoff and Johnson (1980), concepts and language are grounded in body experiences via metaphors that arise from sensory–motor experience. The therapeutic process implies revisiting the meaning of experiences, which create behavioral patterns that are painful or work against the person, the environment, or the entire organic system. By exploring through body movement, sensing and making sense come together in a new setting. In this way, the therapeutic relationship facilitates the arousal of new patterns. New meaning and a different way of *being with* emerge (Lyons-Ruth, 1999).

As in pendular movement, dual concepts such as unity–multiplicity, analysis–synthesis, anabolism–catabolism, science–art, emotion–reason, abstract–concrete, and body–mind are opposite dimensions of the human experience which strive for complementarity. Liking–disliking, approaching–withdrawing, opening–closing, growing–shrinking are basic movement concepts expressing elemental hedonic experiences from which meaning emerges. Very disturbed patients who have suffered trauma have difficulties finding such integration because what they went through was lived as extreme organic system disorganization; they were unable to process these experiences. Harmony and confusion can be seen as necessary polarities pervasive to human experience.

An embodied enactive clinical perspective goes beyond a psychodynamic and a cognitive-behavioral stance. Some of its ideas have in part been integrated only by systemic therapy (Boszormenyi-Nagy & Framo, 1965; Minuchin, 1974). Embodiment takes place directly as visible action in front of our eyes. The mechanisms of emotional contagion (Hatfield, Cacioppo, & Rapson, 1994), for example, cannot be explained in terms of conscious cognitive processing. They result from the flow of interaction, from our capacity to “map” expressions from other bodies directly to our bodies, to match or mirror expressions, to resonate bodily; only then do they sink into our cognitive-affective systems. In 1903, Lipps said:

Perception and comprehension of certain sensory objects, namely those which we represent afterwards as the body of another individual, is immediately grasped by us.... This grasp happens immediately and simultaneously with the perception, and that does not mean that we see it or apprehend it by means of the senses. We cannot do that since anger, friendliness, or sadness cannot be perceived through the senses. (p. 713; translation by Jahoda, 2005)

This perspective is reflected in the current research literature showing that facial synchronization happens within a time window of 500 ms (Dimberg, Thunberg, & Elmehed, 2000), suggesting that the emotional state of the other is directly simulated in the central nervous system of the observer (Adolphs, 2006; Semin & Cacioppo, 2008). Similar, automatic mechanisms could also be the basis of the finding that facial features of spouses converge over time (Zajonc, Adelman, Murphey, & Niedenthal, 1987). Such mirroring has important clinical implications: Rogers (1951) called one of his verbal therapeutic technique “mirroring,” and

dance/movement therapy uses “movement mirroring as a technique to foster kinesthetic empathy and/or to understand more deeply patients’ behaviors” (Adler 2002, 1970; Sandel, Chaiklin, & Lohn, 1993; Fischman, 2009; Homann, 2010; Winters, 2008). Embodied enactive approaches offer a theoretical base for related research.

How Does the Embodied, Enactive Perspective Contribute to Dance/Movement Therapy?

The psychotherapeutic aspects of dance/movement therapy are related to facilitating the unfolding of each patient’s unique mode of relating. By experiencing with the patient, through mirroring, attuning, and creating structures for self-exploration through movement, neither judging nor criticizing, the dance/movement therapist understands and comprehends, linking present with past experience. In this way, dance/movement therapy facilitates development, allowing the unfolding of spontaneity of the self, creating new ways of being with another, co-constructing new meaning, and new, healthier realities. On a methodological level, the enactive perspective allows us to set the unit of observation on the subindividual, the individual, the intersubjective or the environmental level, always including the observer as a intrinsic part of the observed system. This has profound implications, such as the view that there is no “*objective objectivity*.” Science thus can arrive only at contextual consensual community agreements about what is considered reality.

Dualism and monism are two modes or moments of perception. Analysis and synthesis are two necessary modes of organizing and categorizing experience. None of these work alone; they influence and determine each other. In individual and community development there are, were, and will be moments of one or the other. Sometimes it becomes difficult to hold the paradox of the simultaneous co-existence of both ways of seeing. One of the poles often stands out and the other is neglected. Perfect balance is utopia. Watzlawick (1988) reminds us of a third position, which is a creative one: from an apparent dilemma, something new can emerge that is neither one nor the other pole but something completely new. He describes two kinds of games he calls *zero sum games* and *nonzero sum games*. The first one implies a winner and a loser; the second one is related to a creative unexpected resolution. He illustrates his point with a story of an enemy confrontation: A group was surrounded and had only a cow and some grain to survive. They decided to fill the cow with the grain and throw it to their enemies. Since they threw a cow filled with all that grain, their enemies thought they must have an abundance of supplies. The enemies gave up the siege and went back home. In this way, confrontation was avoided.

The embodied perspective—by unifying body and mind, perception and action, creativity and recognition, cognition and emotion—reminds us that our existence is related to our own way of experiencing. It underlines that we are actors in charge of building our realities (i.e., the worlds we live in) out of who we are. *Enaction* confronts us with our involvement, our responsibility as creators of our destinies; our contribution as active participants in the ongoing situation. It also reminds us that our destiny is not already written, it is being co-constructed every

second—changing with each of our movement decisions and, at the same time, being changed by them. This approach gives us back our power of transforming and being transformed, and of affecting and being affected. It reminds us that we are participants in the game of life. Possibilities of what can be achieved through imagination come closer.

The embodied enactive perspective is an empowering perspective because it takes humans away from the primacy of determination and repetition. The concepts of *to move and to be moved*, clearly described in the phenomenology of Sheets-Johnstone (1999) and in the authentic movement approach by Adler (2002), teach us that we humans have the capability to make decisions and that we are moved either by inner forces or environmental, external ones which affect us and make us participate in the pursuit of our full human potential. Being conscious of our movement—perceptual possibilities and limitation—allows us to work on widening our resources to improve individual and community wellbeing. But we still cannot avoid uncertainty, existential anguish, and trial and error. We are still limited mortal beings, even though we are able to enlarge life and create different ways of surviving.

Conclusion

Dance/movement therapy and embodied enactive approaches mutually contribute to expanding and differentiating each other's fields. The embodied, enactive approach provides an opportunity for dance/movement therapy to associate itself with a scientific paradigm that has recently emerged as a body-based approach. It contributes empirical evidence to the fundamental meaning of the body and its movements as instruments for perceiving, feeling, thinking, and (inter-)acting. Since the principles of the enactive approach are so closely related to those of dance/movement therapy, our field may greatly benefit from their scholarly research. Embodied and enactive approaches strengthen the assumption of the body as the basis of thought and affect. They attribute scientific value to experience-based approaches and validate major theoretical principles in dance/movement therapy, other creative arts (e.g., art, music, or drama therapy), and body-oriented therapies. In turn, dance/movement therapy, with its highly differentiated practice and wide applicability, can offer its well-developed assessments and experience-based knowledge, derived from clinical work.

For cognitive science researchers, this partnership would mean critically rethinking some of their subject matter and testing the utility of their approaches in the domains of health and health care delivery. For dance/movement therapists, this means to diligently and rigorously formulate their ideas and articulate their experiences in terms of the embodied, enactive perspective and make them available to other scientific communities and outlets (Koch, 2006). The potential gain is improved clarity, better visibility, and a more explicit formulation of dance/movement therapy theory and methodology in the light of a new, body-based research paradigm.

Much remains to be said with respect to embodiment, enaction, and dance/movement therapy. Further elaboration is needed on how enaction in humans is an inherently social dimension; how it develops in early interaction with the primary caregivers, engendering basic emotions and patterns of intersubjective behavior (Gallagher & Meltzoff, 1996; Kestenbergs, 1995; Stern, 1985; Winnicott, 1958); and how it relates to present neuroscientific approaches (Damasio, 1999; Gallese, 2003), health-related approaches (Antonovsky, 1979), and theoretical traditions in social psychology (Heider, 1958; Lewin, 1951). More studies are also needed on the role of conceptual metaphor theory (Lakoff & Johnson, 1980, 1999) and its relation to embodied enactive approaches as well as to dance/movement therapy; on the role of aesthetics in enaction as an almost uniquely human capacity; and on the relation of language and movement. Whereas embodiment and enaction aim to overcome the body–mind split in Western philosophy—and stand for a holistic, integrative view—the limitations of our language often bring us back to a dissociation of body and mind. This is partially due to the fact that language is discrete, whereas experience is continuous (James, 1911/1979). Art and science need to define and negotiate how to conceptualize and represent experience as an ongoing translational process.

In conclusion, dance/movement therapy's original perspective, practice, and principles are compatible with enactive and embodied approaches. Enaction, embodiment, and dance/movement therapy can mutually inform each other and should take advantage of each other's findings and perspectives. These perspectives can grow together, not only because they are compatible, but also because they are parts of the same continuum, just as mind and body—rather than being separate entities related to one another—constitute one inseparable living whole.

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