

Draft version: Juntunen, M.-L. 2004. Discovering the sound worlds through the body. Proceedings the 26th Biennial World Conference and Music Festival. ISME 2004.

Discovering the sound worlds through the body

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Introduction

The paper is based on my doctoral study (Juntunen 2004) that examines the various aspects of embodiment within Dalcroze Eurhythmics and that includes four substudies (Juntunen 2002ab; Juntunen & Westerlund 2001; Juntunen & Hyvönen 2004). The theoretical framework of my research was drawn from Maurice Merleau-Ponty's (1908–1961) phenomenology. Following Maurice Merleau-Ponty's philosophy, embodiment refers to experiencing and knowing the world subjectively through the living body-subject. The perspective of embodiment accounts for how human beings think and act holistically and how the body can be considered a constitutive element of cognition and creativity.

One starting point for my study was the present situation in education in which the importance and meaning of the body and bodily experiences seem to be poorly, if at all, recognized. Teaching often ignores the crucial facts of our embodiment and instead advances reason as the primary, if not exclusive, mode of knowing. Even music is often taught based on abstractions without making connections to student's concrete musical actions and experiences. This way of teaching seems to reflect the mind-body separation rooted in Cartesian dualism. It has strongly influenced the Western scientific thinking that detaches the body completely from the processes of mind. The paper studies first how Dalcroze Eurhythmics reinforces the embodied experiences and then examines the role of body movement in developing musical knowing.

Dalcroze Eurhythmics – education through and into music

In the early 20th century Emile Jaques-Dalcroze (1865-1950) in the Conservatory of Geneva recognized many kinds of defects in music education that were manifest, for example, in ability to write harmonies without being able to hear them or in ability to perform technically correct but without expression. These observations led him to explore the possibilities of incorporating natural body movements in the musical learning processes. He came to a conclusion that musical learning and understanding

should be based on bodily experiences. (See Jaques-Dalcroze 1921/1980; 1930/1985.) Today his ideas are known by the name Dalcroze Eurhythmics.

The Dalcroze approach integrates ear-training, body movement, and improvisation. Dalcroze teaching includes exercises that combine, for example, listening, moving, singing, thinking, improvising, and imagining—a variety of mind-body involvement within a certain musical culture which aim to explore some particular musical phenomenon. The exercises integrate music and bodily movement using the body as a musical instrument. Teaching includes working individually, with a partner, and in small groups. This implies learning from one's own experience, but also learning from others. Thus, Dalcroze Eurhythmics incorporates both subjective as well as social aspects of learning.

Within music education, the Dalcroze approach is applied in general music education, in music schools, in professional training of musicians as well as with children. The subjects include studies in theory, solfège, rhythm and performance, choral and band rehearsals and conducting, as well as instrumental studies. Not only the variations of applications, but also the teachings styles are numerous. Every teacher has a slightly different and personal way of applying the principles of the approach.

In practical applications, learning through embodied experiences is reinforced in various ways. All Dalcroze applications facilitate learning music through holistic experiences, in which the quality of body movement plays a crucial role. There are no fixed movements for a specific music or musical idea; on the contrary, individuality in movement is encouraged. Teaching focuses on the general quality of the students' movement as it reflects their listening: the quality of body movement aims to reflect the quality of musical sounds.

As is the case with Regelski's (1998) praxial philosophy of music education, in the Dalcroze approach musicianship is developed in broad and general terms. This breadth and generality can contribute to a wide range of musical practices. Furthermore, Dalcroze Eurhythmics stimulates and incorporates the capacities of the whole body-mind. It challenges us to consider the meaning of music education from a more extensive educational viewpoint; it urges us to consider music education as a

process that educates the student not only musically, but also holistically.

Usually Dalcroze lesson starts with 'warm up' which intends to lead the students towards a state of concentration and to make them kinaesthetically aware. Within a lesson, the exercises are paced so that there is a balance between the mental and physical energy required for each activity. They build one upon the other and gradually become more difficult. Thus, students are challenged through the whole process and are smoothly taken to a new level of accomplishment. Furthermore, within one lesson as well as in a long term, the goal is to establish an awareness of and a connection between listening, thinking, feeling, and moving. This enables the experiences to be meaningful and the movements kinaesthetically, and thus qualitatively sensed. In teaching, there is a constant challenge to be alert, to pay attention and to use imagination.

The issue of imaginative bodily involvement—to imagine a movement before doing it (considered response) or to re-experience movement without moving—is central in Dalcroze teaching. Since the brain holds representations of physical movements, it can call them up (Damasio 2000). The image and feeling of body movement is activated in the sensory motor system, even when the person is not moving. It is “as if” the body were really moving, but it is not (*ibid.*, 79-81, 280-283). It is an aspect that has been recognized in some recent studies of learning. For example, Jonathan Matthews (1994, 130) argues that without at least imaginative bodily involvement in a learning process, learning does not simply occur.

In Dalcroze practice, there is a belief that joy increases learning. In order to create joy and relieved atmosphere, many of the Dalcroze exercises can be described as games. Such games include follow, quick-reaction, interrupted canon, canon or replacement. These 'games' necessitate rapid and direct communication between thought, feeling and action. Mihalyi Csikszentmihalyi's (1990) concept of play clarifies the idea of a game. Play sustains interest and enjoyment because it orders consciousness through the creation of constructive knowledge, knowledge of one's own power to control life. Play challenges, as it demands the reordering of one's own know-how to overcome and rise beyond obstacles and the unexpected (see also Stublely 1992, 11). The joy arises when students can experience the balance between their capacities and the task in question. Csikszentmihalyi (1990) refers to this experience of balance by

the notion of flow. In addition, positive experiences are likely to affect students' motivation toward their studies. As Maxine Sheets-Johnstone (1999, 267) reminds us, mere information pickup does not generate motivation, since motivation is not embodied in cognition but rather, is experienced and comes from the felt body.

How body movement facilitates musical learning

Within Dalcroze Eurhythmics approach body movement is primarily related to bodily skills and knowledge, musical understanding, listening and to the sense of self. My findings also include that kinaesthetic awareness and sensitivity plays a crucial role in their development. I suggest that body movement represents pre-reflective knowing and can be understood as physical metaphor in the process of musical understanding from the concrete doing/musicing to the abstract and (or) conceptual.

Within the Dalcroze approach, bodily skills and knowledge are developed primarily in order to create a finer instrument for musical expression. If the student is capable of managing his movements of the whole body in relation to time, space and energy, then the transfer to the flowing and balanced performance in music-making is considered likely. I have studied the bodily knowledge in relation to Merleau-Ponty's concept of *habit* (Merleau-Ponty 1962) and *reversibility* (ibid., 1968), Michael Polanyi's (1966) concept of *tacit and focal knowledge* and Jaana Parviainen's (2000) notion of *bodily knowledge* (see Juntunen & Hyvönen 2004).

In sum, these notions suggest that in learning new bodily skills the circular alternation between tacit and focal knowledge means a dialogue between pre-reflective movement and bodily reflection. One needs sufficient movement experiences before meaningful bodily reflection can begin to happen. This, in turn, requires an open, sensitive attitude towards one's movement. Through bodily reflection and practice, which is an endless process, new movements become tacit knowing. Through observing our movements and through attuning ourselves to kinaesthetic sensations we can also obtain bodily knowledge, that is, understanding of our movements. Bodily knowledge combined with kinaesthetic empathy also helps us to understand other people's movements, which in turn increases our bodily knowledge and our capacity to indwell in new skills.

The importance of good bodily habits in daily life experiences is recognized within Dalcroze Eurhythmics following the belief that they are closely connected not only to our actions, but also to our thinking and feeling in general. To become able to change culturally learnt bad habits and to learn new good ones is a shared goal with such 'body awareness techniques' as Alexander, Feldenkreis or Eutonie. Both Matthias Alexander and Jaques-Dalcroze as many of their contemporaries recognized that the body functioning influences the mind and vice versa, in a heterogeneous way. This implies, for example, that by becoming consciously aware of one's otherwise subconscious movements, it is possible to prevent oneself from doing unnecessary habitual movements and, thus, to improve the body functioning. Similarly, by consciously learning new habits we can improve our psychophysical existence. In good habits there is a harmony between basic bodily functions and intellectual behaviour, between the mind and body so to speak. In Polanyi's (1966) terms we could talk about the balance between the tacit and focal knowing, focal meaning the silent knowing assisting in accomplishing tasks that require attention, to be focused on. According to Jaques-Dalcroze (1921/1980), the harmony between the two results in freeing the imagination and feeling and consequently in joyful peace, whereas the disharmony results in many of the physical and mental ills that people suffer in the modern world.

Learning through movement

In order to be able to learn from movement and bodily experiences, it is necessary to become aware of kinaesthetic sensations. In the Dalcroze approach, in order to help the students to become more sensitive to and aware of kinaesthetic sensations, variations of movements are encouraged. When accomplishing any movement for the first time, we become aware of its felt qualitative character. Thus, in order to get a sense of this originary experience in habitual movements, such as walking, we need to try different ways of doing them (see Sheets-Johnstone 1999). Also other types of Dalcroze exercises can be applied. One way is to study the gestural points of departure and arrival: anacrusis, crasis and metacrusis. Another is called the technique of *excitation and inhibition* in a constantly changing musical environment. For instance, the students walk with the pulse of music. Every time they hear a triplet, they stop or start walking again (excitation). However, they are not supposed to react to any other kind of change in music, for example, to stop walking if the music stops,

in other words, they have to resist the 'natural' reaction (inhibition). This sort of exercise forces constant attention and conscious control over the kinaesthetic processes.

Musical understanding as a habit of musical action

Within the Dalcroze approach it is common to explain that the musical understanding is *based on* bodily experience. However, if we consider the phenomenon of habit defined by Merleau-Ponty (1962) more closely, it prompts us to revise our notions of understanding and of the body. According to Merleau-Ponty, the habit embodies the meaning of the phenomenon and it is the body that understands in the acquisition of habit. Thus, the understanding of musical phenomena or concepts interpreted in this light would imply pre-reflective knowing of their meaning in use. In these terms, considering musical understanding as a habit of action means that the body understands what, for example, a musical phrase means in practice and is able to perform the phrase vocally, instrumentally or in movement. Therefore, the bodily realization of a musical phenomenon is not only a means of showing or obtaining the understanding of it; it is the bodily understanding of the musical phenomenon, and it is the phenomenon as a habit of action. In this light, Timothy Caldwell (1995, 136) seems to have a grain of truth when arguing that the Dalcroze approach teaches musical behaviour, rather than abstract knowing of musical concepts; although instead of using the word behaviour, which refers to skilful actions, I would apply Eleanor Stuble's (1998) notion of 'being in the sound through the body'.

From physical metaphor to musical understanding

One way to understand how body movements may facilitate musical understanding and intensify musical experience is to analyse their use as physical metaphor. In my exploration of physical metaphor, I lean on George Lakoff's and Mark Johnson's (1980, 1999) theory of embodied metaphor. For them, metaphor provides a link between concrete, bodily domain and abstract, conceptual domain. It allows us to understand and experience one kind of thing in terms of another (Lakoff & Johnson 1980, 5). Along with Ramona Wis (1993, 102), I argue that musical concepts that previously are not known or clearly understood, can be taught by seeking similarities which obtain in two seemingly different domains of experience—the concrete and the abstract—and by joining them together metaphorically to create new understanding.

Later, when the relation between the concrete bodily experience and the abstract concept is established, the conceptual level of knowledge is reached based on the earlier experience. Concepts that occur as metaphorical definitions are those that correspond to natural kinds of experiences. Therefore, it is sensible to apply them when teaching musical ideas. That is actually happening in Dalcroze teaching as it aims to bridge natural, habitual movements and experiences to musical concepts and phenomena.

Usually, the notion of metaphor is primarily connected to verbal metaphors. Nevertheless, verbal metaphor is only the propositional result of a much more “complex web of connections in our experience” (Johnson 1987, 7) and is a linguistic description of one’s bodily experience (Matthews 1994, 130; Wis 1993, 14). Stuble’s (2002) notion of “my words, moving words” echoes what Dalcroze teachers note about students having words to talk about their embodied experiences (see Juntunen 2002a). ‘My words’ turn our attention toward the experience of ‘having been moved’. Following Merleau-Ponty’s thinking, ‘my words’ are a linguistic expression of corporeal reflexivity. Through bodily exploration and experience, words and symbols come to have a meaning; without the body’s perceptual experience, words are empty (M-P 1962, 193, 235–237).

In action, the pre-reflective level of knowing includes intuitively the same elements as the reflective level. However, the pre-reflective level and the reflective, conceptual level of knowing are not really comparable. Bodily knowing cannot replace conceptual knowledge and vice versa; they are two faces of the same thing, which positively interact and complement each other. Yet, as Merleau-Ponty (1962, 242) reminds us, the reflective thinking should have its basis in experience. Therefore, in teaching it is the teacher’s task to provide students with embodied experiences that can serve as the basis for conceptual knowledge and to be aware of which level of knowing is meaningful to reach in a given situation.

We should also be aware of that the task of reflection is never ending. Therefore, even accomplished musicians can benefit from experiences that combine music and body movement by attaining a richer or transformed musical understanding and by receiving enriching experiences. Furthermore, as Matthew (1994, 122) notes, although students are perfectly capable of comprehending formal operations, they can

benefit from enriching, embodied context.

Listening and the sense of self

Developing students' listening skills is one of the main goals of Dalcroze teaching. There are several reasons for integrating body movement to listening of music. The bodily reaction gives students something concrete to do as it, at the same time, supposedly clarifies and reinforces their listening and understanding of the musical phenomenon and deepens their musical experience. Students learn from each other without having to be afraid of being judged for a wrong answer. In addition, the teacher is able to see the responses of all of her/his students at the same time.

Another reason for integrating body movement into teaching of music is that musical sounds naturally vibrate in the whole body and cause bodily reactions. When we listen to a musical performance, we do not just hear or think, we participate with our whole bodies; we enact it. This is especially evident with little children. Moreover, hearing itself is a very physical thing. It is a form of vibration that starts off as a kinaesthetic sensation. In addition, movement reinforces the cross activation of the senses.

Jaques-Dalcroze (1920, iii) shares with Merleau-Ponty the view that music is not purely intellectual; it works through the senses and sets the whole sensory being to echo the vibration of sound. In fact, although Merleau-Ponty talks about sounds, he uses this notion metaphorically to note that the human body as a whole holds a listening attitude. Listening to music with the whole self refers not only the physical reactions of the body, but also to the listening that comes from a 'felt' bodily understanding of what it means. David M. Levin (1989) uses the notion of 'preconceptual' listening: a listening that involves the entire body of felt experience, listening attuned through feeling.

Levin (1989, 38) argues that the cultivation of listening is a 'practice of the Self', which enables us to listen to our body's felt need. The Dalcroze approach develops the type of listening that is tuned to one's self. As a Dalcroze teacher asks students to listen to the reactions in their bodies, (s)he is enabling them to connect, not only to music but also to their own response to music, to themselves (see also Juntunen 2002a).

Conclusion

This study offers a starting point for further discussion of the role and importance of embodiment for teaching and learning, and encourages educators as well as educational authorities be alarmed that the bodily experiences of today's students are only two-dimensional for the most part, that most often only the visual sense is activated, and that overall bodily knowledge is poorly developed. Computers are increasingly used even in teaching the arts, thus disengaging the body; furthermore, students use telephones and computers for much of their communication, thus losing the meanings otherwise contributed by gesture and other bodily expressiveness. As if these circumstances weren't already problematic enough, the studies of the arts, those subjects that naturally develop bodily skills and enhance learning through bodily involvement, are also increasingly regarded as irrelevant; at any rate, their value is questioned. Consequently, the studies of the arts are typically allotted less time and fewer resources in schools, while studies that only engage intellectual thinking are stressed above all else. It is difficult to disagree with Leena Hyvönen (2002) that the outcome of this policy in education is a student who resembles a young child's drawing of a human body—a big head with tiny arms and legs.

Dalcroze Eurhythmics offers us a practical example of music education that helps students to discover sound worlds and their selves through the body. Applying body movement in music education teaches primarily bodily knowing of the musical world and offers a bodily basis for conceptual understanding of music. Acknowledging the bodily basis of musical cognition challenges us to recognize the importance of bodily involvement and of embodied experiences in music education: bodily involvement and awareness can serve as educational tool for meaningful experiences and consequently, for more embodied learning.

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