The Dalcroze Approach to Music Education: Theory and Applications

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Abstract

The methods of the Dalcroze approach to music education—eurhythmics, solfège, and improvisation—have had a profound influence on modern music education. In particular, the overt training in kinesthetic abilities, and the assertion that the relationship between music and movement is an intimate one, is at the heart of Dalcroze’s approach to instruction. The empirical research on kinesthesia in education and on the Dalcroze approach to music education is only starting to explore the many facets of this way of teaching, but the existing research is encouraging. This article will provide accounts of eurhythmics, solfège, and improvisation, giving emphasis to what types of activities might occur in these three facets of the Dalcroze approach to music education. Following this, the sense of kinesthesia will be discussed in relation to Dalcroze’s approach. Finally, empirical and philosophical studies of the Dalcroze approach will be briefly summarized.

Keywords

Dalcroze, eurhythmics, improvisation, kinesthesia, solfège

Introduction

It is such joy to succeed in acting freely through eliminating useless manifestations, to give ourselves up, body and mind to the expression of feelings, to act without exaggerated analyses or explanations, and to escape from the deceitfulness of words! (Jaques-Dalcroze, 1930, p. 364)

Dalcroze was a professor of solfège and harmony at the Conservatory of Geneva in the early 20th century. Noticing that many of his students were able to write harmonies and rhythms but not perform them with their body or voice, he became interested in finding a new way of educating them. Eventually, he came to create an approach to educating his students that took form through three elements: eurhythmics, solfège, and improvisation. Eurhythmics was the most unique contribution of Dalcroze’s approach.

Through eurhythmics, Dalcroze proposed that students were able to leave behind the overly excited intellect and allow rhythms to enter their bodies through movement, providing a somatic experience of the rhythm before providing a purely intellectual explanation of the rhythm (Jaques-Dalcroze, 1930). Eurhythmics, he stated, exposed the students to the elements of time, space, and dynamic energy, with students discovering the interdependence of these three principles through the eurhythmic training. In solfège and improvisation, he encouraged students to recall what they had learned through their body during eurhythmics—the interdependence of time, space, and energy. He found that his approach to education worked well and that his students’ abilities improved.

This article will provide brief accounts of eurhythmics, solfège, and improvisation as taught by Dalcroze, giving emphasis to what types of activities might occur in these three facets of the Dalcroze approach to music education. Following this, the sense of kinesthesia will be discussed in relation to Dalcroze’s approach. Finally, empirical and philosophical studies of the Dalcroze approach will be briefly summarized.

Eurhythmics

Eurhythmics pursues no aesthetic object whatsoever; it proceeds from within outwards and its influence is exercised upon the whole body. Its exercises arouse the muscular sensibility and regulate the relations between the two poles of our

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Eurhythmics was at the heart of Dalcroze’s approach to music education. It was through eurhythmics that he felt that students could internalize rhythmic expression to the point where students no longer had to rely on the complexity of thought to understand rhythm. Eurhythmics sought to find a balance between body and mind, deliberate and spontaneous, in the expression of rhythm. Pragmatically, there are many different activities that may occur during a Dalcroze eurhythmics lesson. The following summary will provide the reader with some basic ideas of possible activities.

A “follow” is when the students simply follow through with a pattern. A lesson might begin with a free follow—where students are instructed simply to show what they hear in the music without too many music instructions (though perhaps indicating that stepping to the beat might be a good place to start could be helpful for students who have never done this type of work before). The free follow can be used to step the beat or to step the rhythm, and this is something that the teacher can indicate. The tempo and dynamics follow is when students keep the same pattern of movement (stepping a particular rhythm pattern, etc.) but make changes according to tempo and dynamics (articulation and other subtle aspects could also be expressed in such a way). Follows can also occur by asking students to keep a particular rhythm pattern while the teacher plays something different. “Quick-response activities”, where a signal on the piano (or using the voice) indicates a change in what the students are doing, may occur during a Dalcroze eurhythmics lesson. The following summary will provide the reader with some basic ideas of possible activities.

Solfège

The ear—the recipient of music—should be trained to recognise and to differentiate between all sound-rhythms. No one can be a musician without possessing the faculty of recognising and combining sounds, as well as that of regulating and accentuating their movements. All movement should proceed from within; it should be lived and then externalised. (Jaques-Dalcroze, 1930, p. 361)

Fixed do solfège is used in the Dalcroze approach to music education. In the conservatory at the time when Dalcroze was a professor of harmony, fixed do was the main method of teaching solfège, so the fact that Dalcroze used it in his approach to music education is quite understandable. The technique of using fixed do may not always be the best approach to teaching students in the modern United States (A. Farber, 2010, personal communication). However, after a student has amassed a considerable amount of experience in relative tonal relationships through whatever means may be appropriate (such as movable do, Curwen hand-signs, and melodic
and harmonic intervallic study), using fixed do to further reinforce tonal relationships may prove helpful. Hence, fixed do might be used most successfully with advanced adults, whereas moveable do might be used most successfully with children and adult beginners. The contributions of the Dalcroze approach to the teaching of solfège are not as prominent as the contributions of eurhythmics and improvisation as three separate elements of his approach (Jaques-Dalcroze, 1930), but nonetheless, each one could be seen to influence the other.

Activities used during fixed do Dalcroze instruction are varied. In general, scales are sung from low do (c) to high do' (c'). This creates an interesting situation, as most movable do solfège training in the singing of scales begins with the tonic of the key. This is not the case in fixed do solfège. Therefore, it is important that the student be able to create the appropriate tonality though silent audiation to appropriately execute the singing of the scale. This requires the mental capacity to recontextualize a single tone into various placements in the scale. For example, if given the tone do (c) on the piano and asked to sing a scale, there are seven possible major scales that include do, but do serves a different function in each of these scales. By adding do-sharp and do-flat, one is able to sing all the major scales. The student must learn to put do into the correct scalar context through the use of fixed do.

Also important in solfège is the identification of harmonies. Harmonies can be heard and identified by groups of students, who in turn use hand signals to show what they hear as the root of each harmony. After students have reached a high level of proficiency in major scales, relative and parallel minor scales are added, as well as modes. Improvisation allows the students to use the tonalities they have practiced in solfège in the actual creation of spontaneous music.

**Improvisation**

Improvisation, practised as an art and a science, is based upon all the traditional rules of harmony and composition; its function is to develop rapidity of decision and interpretation, effortless concentration, the immediate conception of plans, and to set up direct communications between the soul that feels, the brain that imagines and co-ordinates, and...
Dalcroze discusses, in “Rhythmics and Pianoforte Improvisation” (Jaques-Dalcroze, 1932), what he sees as the purpose of improvisation; namely, to allow the spontaneous expression of an individual’s musical ideas without an emphasis on reflection and mostly preconceived ideas. He notes that Mozart composed the overture to The Marriage of Figaro in a single night. The musical culture during the 1920s to 1930s generally looked disdainfully on improvisation, and Dalcroze notes that journalists often referred to inferior compositions as resembling an improvisation (Jaques-Dalcroze, 1932, p. 374). However, Dalcroze was concerned that much of the music being written was done so in a very intellectual fashion, divorced from a creative and natural flow of musical ideas. He notes that Mozart composed the overture to The Marriage of Figaro in a single night. The musical culture during the 1920s to 1930s generally looked disdainfully on improvisation, and Dalcroze notes that journalists often referred to inferior compositions as resembling an improvisation (Jaques-Dalcroze, 1932, p. 374). However, Dalcroze was concerned that much of the music being written was done so in a very intellectual fashion, divorced from a creative and natural flow of musical ideas. He argues that too much time thinking about musical expression through composition makes the flow of musical thought much more difficult. Composition prevents that natural stream of musical thought and thwarts the composer of the continuity of musical thought possible in improvisation.

This is not to say that Dalcroze is advocating against composition, but rather that Dalcroze advocates for a style of music education where the rules of harmony, style, and so forth are naturalized in the student to such an extent that he or she does not need to rely too much on the process of thinking. Instead, having internalized such rules, the student or composer should be much freer to express musical ideas without the need for nearly-constant reflection on mental lists of rules regarding musical composition. He quotes Forkel (Jaques-Dalcroze, 1932, p. 375), who conveys that the improvisations of J. S. Bach were superior to his compositions, primarily because during improvisation Bach did not have to slow down his music ideas in order to transcribe them.

In a Dalcroze class, improvisation is an important part of the threefold division of eurhythmics, solfège, and improvisation. Improvisation, in some regards, may be the most difficult of the three facets to teach (Jaques-Dalcroze, 1932), though it can also be quite natural when eurhythmics and solfège have been thoroughly learned by the student. After having familiarized himself or herself with a basic piano technique and basic knowledge of harmony, melody, and style, the student is given tasks to complete at the piano, which encourage spontaneous musical expression.

At first, improvisation exercises may be quite simple, like playing a simple monophonic melody with good phrasing and melodic interest. Then, the student can be led to create simple ostinato patterns to accompany such melodies. Nonfunctional harmonies can be added to melodies, as the student is more free from conceptual discursiveness when using nonfunctional harmony. Finally, melody and functional harmony can be combined, and the various rules of functional harmony can be used in ways that require more and more internalization of the rules, such that they become second nature. Improvisation, then, is the progressive training of internalization of the rules of composition, such that the student does not have to rely solely on intellect to improvise, but rather has trained his or her body in the rules and hence has progressively relied less and less on intellect. This frees one’s cognitive resources for greater inventiveness as the mechanics of music become more second nature (cf. Farber, 1999; Findlay, 1971; Jaques-Dalcroze, 1932).

As a teacher of eurhythmics, improvisation is very important, as the music improvised by the teacher forms the basis of the lesson for the students (Chosky, Abramson, Gillespie, Woods, & York, 2000). However, improvisation does not have to be complicated to be effective. Thin textures are often more clear and easier for movement than thicker textures. The practice of harmonizing traditional melodies with functional harmony allows the hands to become more fluent on the keyboard, freeing up cognitive resources. Other techniques, such as using whole-tone, pentatonic, and hexatonic scales, and marking different musical sections for movement by using different tonal centers, are useful in improvising for eurhythmics classes. Improvising for movement requires of the teacher a large vocabulary of rhythmic figures appropriate for various types of locomotor movement. For improvisation not intended for eurhythmics lessons, using images, such as descriptive sentence as prompts for improvisation, gives considerable freedom and space to improvise without being too concerned with rhythmic problems that may be disruptive for improvisation for movement.

**Kinesthesia**

Once the bodily rhythms are completely freed from all nervous or intellectual oppositions, the play of movements becomes automatic, and the elimination of unnecessary muscular contractions produces a notable diminution of effort. (Jaques-Dalcroze, 1930, pp. 359-360)

**Proprioception** is the term applied to the data the brain receives from proprioceptors, which give the brain feedback about the position of the body. Kinesthesia is similar, but refers more to the sense of motion in the physical body. Kinesthesia “relates one’s sense of space
and movement in its external, physical sense to one’s deepest mental experience” (Galvao, 1999, p. 130). The relationship of proprioception and kinesthesia is not yet settled in the scientific community, and the two terms are often used interchangeably (Galvao, 1999). Galvao describes kinesthesia and relates this mode of sensory input to music education. Referencing Suzuki Roshi, the prominent Zen teacher, Galvao points out how Suzuki Roshi stated that archery was taught in Zen as a way of balancing conscious and unconscious effort. Galvao (1999) interprets this, quite convincingly, as integrating the conscious and unconscious mind. Learning archery in this style “relates one’s sense of space and movement in its external, physical sense to one’s deepest mental experience” (p. 129). Galvao discusses the importance of kinesthesia in both the Dalcroze and Orff-Schulwerk approaches to music education and notes that the idea of relating kinesthesia with musical training is congruent with the findings of music psychologists such as Seashore, Bolton, and Kolffka (see Bachmann, 1984, for further discussion). Galvao goes further, considering kinesthesia as one of three important modalities important for music, each emphasizing different elements:

Kinesthetic capacity is one of the three human sensory sub-modalities which are especially important for music. The two others are visual and auditory (which also have kinaesthetic functions). According to O’Connor (1987) there is a tendency among music teachers to emphasise visualisation in learning. However, it seems that the integration of the three processes is more effective in bringing about the desired behaviour as each one of the three human sensory submodalities has its own function. Visual information is related to colour, location, contrast, distance and speed. Auditory information may include volume, timbre, location of sound, duration speed and clarity. Kinesthetic information is related to location, intensity, pressure, extent, texture and weight. One way of learning is by paying attention to one different sensory information process at a time. (p. 134)

Galvao concludes by noting the lack of empirical research into kinesthesia, especially in relation to music education. Most studies of kinesthesia have been clinical and show the severe disability of individuals who have pathologies affecting their sense of kinesthesia (see Sacks, 1998). Despite the lack of empirical evidence, many prominent minds in music education—such as Dalcroze and Carl Orff—have seen the importance of training in kinesthesia for music education. However, Galvao notes that Sloboda (1985) maintains that music is an integration of a mental and a physical plan. If such an integration is accepted, then the role of kinesthesia in such a plan is rather straightforward.

**Empirical Studies**

The constant preoccupation of the intellectual centres to control the motor apparatus produces a state of irritation, discouragement and lack of self-confidence. (Jaques-Dalcroze, 1930, p. 364)

Relatively little empirical data exist regarding the effectiveness of Dalcroze eurhythmics in music education. However, Dalcroze eurhythmics presents a philosophy or approach to teaching, so empirical studies of its effectiveness are always dependent on variables such as teacher quality, lesson design (which is not standardized in the Dalcroze approach), and other variables. Hence, any empirical studies investigating the effects of the Dalcroze approach must always be closely analyzed to determine the validity of the study. Nonetheless, some empirical research has shown results of interest.

Berger (1999) found that lessons in Dalcroze eurhythmics that emphasized pitch did not increase third- and fifth-grade student competency in pitch. Students who received Dalcroze eurhythmics instruction that emphasized rhythm increased student competency in meter but not in rhythm. In the discussion of her complex array of results, Berger notes that the human larynx has no proprioceptors attached to it, relying entirely on neurological stimuli.

Rose (1995) found that instruction to kindergarten, first-grade, and second-grade students using Dalcroze eurhythmics increased student beat competency. Crumpler (1982) found that instruction for first-grade students that used Dalcroze eurhythmics lessons increased student performance in the melodic aspects of register and melodic contour discrimination. Wang (2008) found that Dalcroze eurhythmics activities produced statistical differences in the ability of sixth-grade Chinese students’ progress in learning musical rhythms.

Todd (1999) reviews investigations between the body, rhythm, and beat induction, as well as sense of physical body movement that can be induced through music. His arguments are convincing regarding the role of the sensory–motor system in beat induction. His proposed neurobiological perspective of motion in music deserves further empirical treatment. Pennys (1989) looks qualitatively at the connection between motion and emotion in the performance of piano music, but the article is fairly inconclusive regarding the connection.

Philosophical inquiries into the approach of Dalcroze can prove just as fruitful as empirical studies. The Dalcroze approach is a framework for constructing meaningful student experiences in music education. The
framework is so broad that empirical studies may lack validity—either externally or internally. Therefore, a philosophical line of inquiry to the Dalcroze approach may be just as or more insightful as empirical studies.

Philosophical Studies

We are dealing, so to speak, with permeation of the intellectual by the irrational and . . . of the unconscious by the conscious. The effect of these exercises, in persevering subjects capable of gauging their strength, and of setting up in their lives an alternate rhythm of work and rest, is to release the mind from morbid obsessions and to instill into the whole life more of naturalness and of abandon, at the same time strengthening clarity of vision and developing the will. (Jaques-Dalcroze, 1930, p. 364)

In an excellent article by Juntunen and Hyvonen (2004), the authors relate the ideas of Dalcroze with the philosophical ideas of Merleau-Ponty. Arguing that the body presents the primary mode of perceiving the world, the authors argue 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” (p. 199). Merleau-Ponty developed a system of phenomenology that emphasized the role of the body in precognitive knowing, which contrasts with the typical Western viewpoint of a body/mind dichotomy, as formalized in the writings of Descartes.

The Cartesian idea of a body/mind dichotomy has come to dominate the typical Western scientific perspective; however, this does not necessarily mean that this system proposed by Descartes is entirely correct. Juntunen and Hyvonen (2004) describe the philosophy of Merleau-Ponty: “All theoretical thinking, and all achievements in science, are based on the stratum of the primordial experiences that are attained though our bodily contact with the world” (p. 200). Hence, the training of students through Dalcroze eurhythmics allows the student to experience and learn about music through body movement.

Juntunen and Westerlund (2001) also provide an interesting philosophical discussion of the approach of Dalcroze eurhythmics, drawing on philosophical inquiry from David Elliott and John Dewey. Here, the authors argue that “the body can be taken as a conscious object of transformation within a framework of ‘holistic duality’ rather than dualism, and that this idea should be more consciously considered and applied to research and practice in music education” (Juntunen & Westerlund, 2001, p. 203). The authors argue against the mind/body dualism of Cartesian philosophy typically held to be true within a Western scientific context. However, they do see that the mind and body are interdependent. Hence, emphasizing precognitive knowing through the body is perfectly reasonable within a philosophical framework such as the one proposed by Merleau-Ponty. David Elliott’s philosophy, according to the authors, is in agreement with Dalcroze that embodied action is a necessary component of music education.

Drawing on philosophical ideas of John Dewey, the authors further support their position. F. Matthias Alexander, known now for the “Alexander Technique” of body awareness, also presented arguments congruent with Dewey, Merleau-Ponty, and Elliott. Walker (2003) gives additional supporting evidence from philosophical and empirical sources regarding the problems created by the body/mind dichotomy. She rightly argues that simply understanding the mechanics of music theory does not mean that one can hear what they are writing, in the same fashion as Dalcroze; her thesis gives specific recommendations for using Dalcroze eurhythmics in teaching music theory.

Conclusion

The methods taught of Dalcroze of music education—eurhythmics, solfège, and improvisation—have had a profound influence on modern music education. In particular, the overt training in kinesthetic abilities, and the assertion that the relationship between music and movement is indeed an intimate one, is at the heart of Dalcroze’s approach to instruction. Eurhythmics receives the most attention for that very reason; it is in eurhythmics that the relationship between movement and music is made explicit. Carrying over the experiences of rhythmic internalization that result from eurhythmics training, the study of solfège and of improvisation become more natural, as the elements of rhythm no longer require conscious effort on the part of the performer. The empirical research on kinesthesia in education and on the Dalcroze approach to music education is only starting to explore the many facets of this way of teaching, but the existing research is encouraging. Dalcroze was truly a visionary, ahead of his time in understanding the role of the body in music education.

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