Sound & Score

Essays on Sound, Score and Notation

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Chapter Twelve

A Physical Interpretation of a Score in a Listening Attitude

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INTRODUCTION

Sight—the visual—has always been central in the mind of Western philosophy and also a basis for knowledge in general. However, in the philosophies developed by Heraclitus (500 BC) (1997) and later Heidegger (1927), we encounter a listening-thinking that encompasses not only listening to music but also listening as a basic phenomenon in human relations (Wallrup 2002). Listening opens up the world, in contrast to the visual, which establishes boundaries and is critical and analytical. In most cases listening allows for a different kind of meaning, so that when visual comprehension fails, the listening becomes both a physical experience and an embodiment of understanding. This duality has an equivalence in the difference between artistic and scientific research: in the latter, the visual appears in as fixed conditions and concrete evidence, while auditory perception is ephemeral, in-process and transformative. We want to highlight the complexity of listening in an artistic process, taking into account both dance and music, and to suggest how the music is influenced by, as well as being, the method, through participation, accountability and co-creation.

The relationship between dance and music went through many approaches during the twentieth century, and dance has consistently been related to music in a conscious or unconscious way. During the birth of modern dance in the early twentieth century choreographers wanted to deepen the dance as an art form by finding the values intrinsic in individuality, in the quality of movement, and in different composition techniques, all independent from the sounding music. This evolved later, around the sixties and seventies, into the choreography of dance to take place in silence. For these choreographers the dance in itself was an expression; they were reacting to early modern dance and ballet that practised “music visualisation,” as evidenced in the choreography of, for example, Isadora Duncan and Ruth St. Denis, who used symphonic music. The choreographer Mary Wigman started to use percussion instruments for accompaniment in, for example, “Hextanz” from 1929 and eventually to use music (or non-music) with strong emotional content in her “Ausdrückstanz.” The choreographer Merce Cunningham and composer
John Cage developed a form in which the music was a vivid landscape of sound and the dance came forward as an abstract musical form. In general, choreo-musical influences in the twentieth century led choreography to visualise the music in dance, using music to create a mood or to strengthen, lead or comment on the emotions in an epic piece of dance. This is still the general historical view of the relationship between dance and music.

To many of us music and dance have a strong link to each other, but in research the nature of this link often is not obvious. It is therefore important that new and useful studies in dance and music research be conducted in a way that is rewarding and enriching for both fields. The interplay between dance and music has been going on for a very long time, though the interaction has varied depending on expression, time, or the current social climate. However, more systematic and reflective study that could build a base for knowledge in this area is almost completely missing.

AIM

During the autumn of 2009, a dance and music project started which culminated in a performance named *Echange*, with nine dancers and full orchestra at The NorrlandsOperan in Umeå, Sweden (Jaresand 2009). The research involved collaboration between experts with complementary skills. The artistic director and choreographer, Susanne Jaresand, and the researcher, Maria Calissendorff, documented the events and analysed the project by means of observations, interviews, reflective seminars and focus and reference groups. Their observations were followed up by “stimulated recall” with both choreographer and actors included in the study. The dance was choreographed in relation to the violin concerto by Unsuk Chin, performed by soloist Anna Lindal and the NorrlandsOperan Symphony Orchestra under conductor Staffan Larson. The project concentrated on the continuous interactions and reflections of a choreographer, conductor, dancer and orchestra (including the soloist) throughout the artistic process.

The study thus encompasses both dance and music and is focussed on how these arts are shaped through a creative process and in a professional performance. It follows that the study explores how a score is translated into dance and whether this physical interpretation of a score can deepen the listening experience of the sounding music. What is the difference between dance and music? The analysis of the score became the artistic context for creating a counterpoint in dance, to get a deeper insight into music through the conjuction of the two.

Another goal of the investigation was to explore the choreographer’s role as a contributor to a process in which the dancer is a partner who participates in shaping content and its development and shares the decision-making about such issues as perspectives, intent and structure. In such a process, the choreographer has a responsibility to share research results and decision-making regarding concepts, intent and style. Choreographer and dancer then together create and possess a volume of knowledge (Butterworth, 2004).
From the overall purposes there were derived the following specific objectives:
- to create an artistic expression in dance and music through extended listening, not necessarily connected to the ear;
- to clarify the different roles in the artistic process in order to achieve a deeper insight into the interactions between dancer and musician, within their respective artistic expressions;
- from an artistic perspective, to illuminate systematically the methods and processes utilised in the artistic work, within the genre of contemporary dance and based on the musical language in dance;
- to focus on and reflect upon the idea of participation and co-creation in the artistic work.

When music and dance are incorporated in this two-voice harmony, the actors take a listening perspective that points toward a resolution in a collective consciousness and therefore links to thoughts and theories about the ego and about consciousness. These form part of a long philosophical and psychological tradition which today is strongly influenced by neurologists and philosophers such as Damasio (1994, 1999, 2003) and Metzinger (2003).

BACKGROUND

What kinds of choreomusical relationships exist and how do we talk about them? What do choreographers look for in music and composers in choreography? How do dancers embody sound and musicians reflect movement in their performances? How similar or different are physical and acoustic gestures? Does the equivalence implied in these questions apply in the world of Western music, where composers and conductors have been conspicuous in their exercise of expertise and authority throughout centuries and where musicians have been instrumental, in both meanings of the word?

Historically, many modern dance pioneers received their rhythmic and musical training directly from Émile Jaques-Dalcroze. Marie Rambert, who studied with him for nearly four years, helped Vaslav Nijinsky in the creation of The Rite of Spring. Rambert says that “the interpenetration between movement and music is so that you hear with your eyes and see with your ears” (Sawyer 1986, 40).

Marie Rambert also started the British Ballet, in which Frederick Ashton and Anthony Tudor were active. Other dance pioneers who were pupils of Jaques-Dalcroze were Mary Wigman, Hanya Holm, Ruth St. Denis and Ted Shawn. The latter two founded the Denishawn School, where Martha Graham and Doris Humphrey studied. The interest in “Music Visualisation” at the Denishawn-school shows what a great influence Jaques-Dalcroze had.

Cooperation between music and dance is one of the most established and most discussed interdisciplinary topics. As early as the 1920s Fedor Lopukhov pointed out the importance of the development of non-narrative dance and its relation to music (Sawyer 1986). Even so, the subject is one of the least thoroughly investigated. However, there are now signs that researchers and practitioners in both dance and music seek to create new ideas and to encourage
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an exchange of language from the two disciplines. Roehampton’s Centre for Dance Research is an internationally recognised centre for choreomusical studies. Working together with Princeton University’s Music Department, which engages in interdisciplinary research, the Centre has built a basis for cooperation with the British Society for Dance Research. One of the persons behind this initiative is Professor Stephanie Jordan (2000).

LISTENING

Listening can be understood as a meaning-making action that includes musicians, dancers, choreographers, conductors and visual artists, all involved in the artistic process. This leads us away from conventional principles of cause and effect, instead turning the artistic approach towards listening to allow for further understanding and new interpretive dimensions in artistic expressions. What is important about listening, and what methods can lead to a more profound experience of it? What is listening? Can a movement be perceived as music? How does listening-thinking come forward? How can listening be made more important, with a greater presence in artistic, philosophical and scientific discussions? What is the function of rhythm in relation to these questions?

Sound associations can create meaning and context for patterns in other than conventional ways, and being in between two states creates transparency through movement to something else—something new, or past. We hear music not just through our ears but also through our hands, arms, checkbones, skull, tummy, chest, legs, opening our body to the vibration of the music. Music and dance can create a sense of solidarity, develop self-confidence and nurture in ethical and aesthetic values, awaken a sensibility to the outside world. Music contains human expressions; and dance, as counterpoint, becomes a mirror in order to deepen the experience of music.

METHOD

When dance and music interact, a complex human agreement occurs, in which listening infuses the artistic process with an expanded awareness. Conventionally the choreographer chooses a piece of music to frame the choreography, as an artistic limitation. The method used in this project, however, was to create the dance in silence but out of the choreographer’s profound knowledge of the sounding music. The dance creates its own music, own pulse, rhythm, melody—a counterpoint to the sounding music. The dancers will find a “dance-sounding” music in the dance. They listen, through dancing this “danced” music, to the sounding music. Polyphonic and polyrhythmic elements equivalent to the sounding music will occur.

The focus is on the role of music in relation to the dance, not on music as something the dance has to break away from. More important is to be able to experience the greatness of music in both the sounding and the danced music. One of the roles of the dance in this project is to enhance the experience of the sounding music through the danced musical counterpoint, a counterpoint
that neither visualises the sounding music nor simply contrasts with it (as, for example, strongly rhythmic music with a legato dance, or a sounded crescendo with a solo dance in a movement sequence that is pianissimo). Instead, the focus is on seeing dance and music as equally transformable partners—transformable in the sense that both art expressions are using musical elements in a structured form in which the artistic choices are based on research, knowledge, experience, tradition, style and communication—that is, listening. The method also requires implementing its converse: a composer listens to and analyses a choreographed “danced music” and creates a counterpoint in sounding music. Then the dance takes on the role of demarcation, setting the frame of the artwork.

In this case, the dance is choreographed in advance, with musical elements and structures as the inspiration/starting-point for the form and the qualities and content of movement. The sounding music must open up to the music of the dance; the composer must “hear” the dance score and have this score as a frame for the sounding composition. The choreography should be open for interpretation in the same way as an orchestral score is interpretable to the conductor and the musicians.

The project also highlights the place of gender and how gender roles are manifested in the artistic process (Hermele 2007). The artistic collaboration between the area of dance and music is traditionally characterised by very pronounced and rigid gender roles: the dance is seen as female, filling in an empty space, while the music is seen as male, making the frame and governing this space. This gendered perspective is not manifested in actual male and female sexes, of course; it should be understood as a broader concept.

**PROCESS**

The choreographer first determines what music should be the starting point and source of inspiration for the dance and music performance. This decision can also be made in consultation with the dancers and with all the artists involved in the process. Then the choreographer and conductor agree on an interpretation of the music. The choreographer repeatedly listens to the music, recorded in the current interpretation of the conductor, so that all parts of the music (the musical elements) become anchored in the choreographer. Then the choreographer conducts extensive score studies to determine how each part of the music creates a base for the dance: How many dancers should be included in the different parts? Is the dance supposed to visualise the music or to provide a counterpoint? Can a solo dancer meet a compact tutti crescendo? And so forth. These are some of the artistic choices of the choreographer, who then creates a sketch-like dance score from the music score, a kind of two-voice harmony. In this process the score that was the starting point for the project is interpreted and expressed. The challenge now is to find a flow, a give-and-take, in the interpretation of the sounding score with reference to instrumental groups, solo parts, volume, timbre, time, rhythm, pauses, melody, counterpoint, harmony, phrasing, structuring, orchestration...; and to find
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how the dance will be structured: number of dancers, quality of movement, muscle dynamics/tonus, diversity in corporeal forms, duration, rhythm, phrasing, continuous succession of isolated movements, distribution of movements in space and time, varied movements in opposition and combination, succession of associated movements...

The choreography is then further developed in silence, to find its own “music” within the dance, a process in which the dancers are co-creating alongside the choreographer in their individualities, experiences, imaginations and knowledge. This is indispensable for the artistic expression of the performance. The dance sequence is based on a listening interplay to the natural rhythm that occurs in the improvisation of the dancer and the shaping of the movements of the choreographer. There are also relationships between the rhythms of the dance and the rhythms of the music, between the sound volume and the size of choreographic gestures, between musical textures such as polyphony or homophony (which describe the organisation of instrumental voices) and the analogous choreographic organisation of the dancers, between the timbre of the instruments or sounds and the characters of the individual dancers, etc.

It is important that the choreographer has a profound knowledge of the sounding music. The dancers only listen to the music through dancing the sequence created in silence; thus an artistic encounter occurs with listening as a mutual language. This cooperative process should be carried out accurately and with great care, especially with regard to the quality of the non-psychological movement that arises in the work when the musical elements are transformed into dance. The process also requires accurate timing with regard to the appropriate movements. How can a dancer be exactly placed in a timeline with his or her whole being? Must the dancer physically be seconds prior in order to be exact at a predetermined time?

There are different ways to achieve this conscious listening; one of them is the method of Dalcroze Eurhythmics, which is the English term for the music method developed at the beginning of the twentieth century by the Swiss composer and music teacher Émile Jaques-Dalcroze. The name “Eurhythmics” is a variation on the word “eurhythmia,” a term used in art and architecture to refer to special and harmonised proportions. Eurhythmia is derived from the Greek word “eu,” which means good, and “rhythmos,” meaning “flow.” It is a method to train and deepen listening, which is experienced as a physical experience of the whole human being when reading and interpreting a score. Dalcroze claimed that musical expressiveness could be taught and does not depend solely on natural talent and also that prominent musicians often had an instinctive physical connection to music. Dalcroze trained students in each of the musical elements so that they could represent these physically, resulting in a virtual lexicon of musical translated movements as depicted in the following table (Jaques-Dalcroze 1920, 150):
### Every physical action or movement can be related to a musical term and used to physically reproduce the music in dance/movement. Muscle dynamics highlight the rhythms of the music, while the music’s dynamics make the movement musical, with its plastic ability and rhythms. Gesture clarifies the musical experience. The exercises can be seen as dancing to the untrained listener/viewer. The method can be further developed into an art of movement/dance in which listening is the artistic point of departure and inspiration. So there are two goals of the Eurhythmic method: to deepen your musicality as a musician and to create a contemporary dance form based on musical elements.

**DANCE GENRES**

Contemporary music has a history in which different styles are not necessarily linked directly to specific composers or individuals. In contemporary dance, style often emerges from the technique of a particular choreographer. By grouping modern contemporary dance styles into three genres, we can

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<th><strong>DANCE</strong></th>
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<td>Position and direction of gestures in space</td>
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<tr>
<td>Intensity of sound</td>
<td>Muscular dynamic</td>
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<tr>
<td>Timbre</td>
<td>Diversity in corporal forms</td>
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<tr>
<td>Time</td>
<td>Time</td>
</tr>
<tr>
<td>Rhythm</td>
<td>Rhythm</td>
</tr>
<tr>
<td>Rests</td>
<td>Pauses</td>
</tr>
<tr>
<td>Melody</td>
<td>Continuous succession of isolated movements</td>
</tr>
<tr>
<td>Counterpoint</td>
<td>Opposition of movements</td>
</tr>
<tr>
<td>Chords</td>
<td>Constellation of associated gestures/movements</td>
</tr>
<tr>
<td>Harmonic successions</td>
<td>Succession of associated movements</td>
</tr>
<tr>
<td>Phrasing</td>
<td>Phrasing</td>
</tr>
<tr>
<td>Construction/form</td>
<td>Distribution of movements in space and time</td>
</tr>
<tr>
<td>Orchestration</td>
<td>Opposition and combination of diverse corporeal forms</td>
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strengthen the differences in artistic identities within a broader cultural history. The genres have different starting points:

1. from a narrative, an epic, a history.
2. from an image, a mood, a feeling.
3. from the music/rhythm, the sounding.

Music has different functions within these three genres:

1. In the epic the music accompanies the story, enriching its contents with different emotional states that often precede what will happen.
2. When there are visual beginnings the music creates an atmosphere in the room, a kind of musical carpet to dance on.
3. When the music takes the leading role the sounding music makes a voice and the dance is an independent musical counterpart.

When working in the third genre, the roles of the artists in the process can be described as follows:

- **The Musician** needs to listen to the interpretation realised through the interaction between co-musicians and conductor. The musician must value the importance of the interpretation to the way in which the sounded music meets the music of the dance, in order to find stability and, in that, a deeper listening to the dance. If the music is composed with “intervals” for the dance, musicians can, in these spaces, open up their listening even more to the dance and increase their knowledge about the expressions of dance that are equivalent to those in the score. This experience can add new dimensions of inner and outer listening to their playing. The music becomes physical and spatial and thus provides opportunities for finding new dimensions of musical expressions. If the music is based on improvisational models, musicians can interact with the music of the dance to an even greater extent, through mutual listening.

- **The Conductor** should form in advance an understanding of the orchestral music as part of a performance and should therefore have a communicative relationship and take a listening attitude towards the form and content of the performance. The conductor interprets the music, in collaboration with the choreographer, and records it for use during the rehearsals. This interpretation offers a solid artistic frame, and should be repeatable when it meets the dance, since the dancers will have established coordinating points in the music that follow that interpretation. Nonetheless, variations should occur when the orchestral body meets with the body of the dance, allowing for a living artistic meeting—which includes the listening contributed by the audience. In an improvising orchestral body the conductor takes on the role of artistic supervisor, distributing various improvisational models in a give-and-take relationship to the dance, which can be choreographed or improvised.

- **The Dancer** improvises movement material shaped by the choreographer and based on the musical elements. The dancer’s knowledge, experience, imagination and individuality shines through the material, which is
“straightened up” by the choreographer to be consistent with the genre in which the choreographer is working. The dance sequence is based on an interplay between listening to the natural rhythm that occurs in the dancer’s improvisation and the forming of movements by the choreographer to purposes that follow from a musical listening. The metric structure of the sounding music is neither controlling nor limiting.

Then the dance sequence confronts the sounding music to find “meeting places” which occur by intuition, coincidence, knowledge and experience. It is important to cultivate in the dance a scale of musical expression, to give the body full control of all available dynamic and agogic elements, to create an opportunity to experience every nuance of the music through the muscles. This requires knowledge and recognition of differences in articulation, muscle contraction, decontraction, balance, flexibility and elasticity. This learning must be complemented with knowledge about agogic and spatial practices, so that variations in time are anchored through listening.

A dancer’s musicality differs in character from that of a musician; it is a mixture made from different—but related—content. The dancer’s interpretation must combine muscular impulses and extremely subtle shifts in timing with the music’s framework of phrasing, rhythm, and other qualities, as decided by the choreographer. Most of the crucial preparatory and connecting movements are beyond and even in contradiction to the meter and pulse of the sounding music. The culmination of a movement is highly depending on the preparation of and relationships in the movement, and those culminations are the most important moments for the audience. The audience should be unaware of the preparation or link, as these have no intrinsic value. The preparation for and departure from a movement—“coming in and reaching out”—is what gives the very essence and quality of the dance, the musicality of the dance. Consonance in the dance can be achieved by such transitions if they are performed with musical consciousness. However, if the dance sequence is choreographed in advance, an inverse relationship can also be found, in which the musician creates a consonant counterpart to the music of the dance. Either way, in a broad sense listening permeates every part of the process to create the dance.

– The Choreographer designs movements of musical value in relation to the artistic vision. This is an activity as specific and thorough as the design of an orchestral work, both musically and in terms of space. He or she should have knowledge of counterpoint, phrasing, cooperative polyrhythmic movements and harmonisation in the dance, as well as knowledge about the relationships between movements, body positions and the space that surrounds them. The choreographer must train the dancer’s listening to be inside the music, facing it—and the musical integrity—within the dance without being controlled by it or following impulses directly from the sounding music.

The choreographer is part of a large network not only of dancers but also of musicians and composers. This requires close cooperation in a spirit of curiosity that allows composers to appreciate that their work is being interpreted as a counterpart in dance and musicians to open their listening
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towards dance. This spirit must also embrace the visual scenic expressions (light design, set design and costume), so that they enhance the musical values and avoid a storytelling that possibly alienates from the music.

DISCUSSION

Are there any practices that can govern choreographic creations by considering the qualitative characteristics of movement in relation to the movements’ inherent musicality? How can we subjectively separate movement that is musically meaningless from movement that is musically meaningful in relation to the artistic intention?

Are there methods for compositional creation that relate the qualitative characteristics of sounds to the inherent motions of gestures? How can meaningless gestures or sounds be separated from meaningful ones?

Can the positive incomprehensibility, the abstraction, of music be found in dance, or does dance have to be comprehensible through its corporeality? As an instance, consider the status of sound vis à vis music. Sound is generally immediately comprehensible, while music has greater structural abstraction and hence greater ambivalence.

What synergies can emerge from this research, this listening, both physically and instrumentally? Is this practice transferable to human communication outside the artistic world? Does a synergy emerge from this process, one in which dance and music are mutually convertible? Can this method strengthen, deepen and make visible what the languages of music and dance clarify in relation to an artistic intent? In what other non-artistic fields might this method apply, if we substitute for dancer, musician, choreographer other professions—artistic, educational and non-artistic?

With these overall thoughts about listening in artistic research as a new paradigm in the academic, philosophical and scientific world, it is important to visualise (“audialise”) listening in a broader sense. We use artistic expressions—dance and music—for the purpose of emphasising their common denominator: listening.

The performance Exchange was a practice-based research project; it could only take the form it did because it was an artistic project. Artistic research can create remarkable connections between different disciplines, and through this it also develops the artist’s individuality. Artistic research is invaluable in our complex information society, in which scientific and artistic skills are increasingly balanced on a more equal basis.
Susanne Jaresand and Maria Calissendorff

REFERENCES


