Correspondences Between Music and Dance

1. Terminology and concepts used to describe sound and motion correspondences, is also relevant when analyzing correspondences between music and dance.

2. Dance is often understood as a response to features in the musical sound. That is not always the case.
Syllabus

Music Moves


Examples


Dance

Dancers
- Performers
- Perceivers
- Social event

Dance motion
- Choreographed
- Improvised/Free dance
- Spontaneous
- Music style/culture
Music-Related Motion

1. Sound-producing actions
   • Excitation (direct or indirect) and modification.

2. Ancillary motion and/or Sound-facilitating motion
   • Support, phrasing, and entrained.

3. Sound-accompanying motion
   • Sound-tracing and mimic.

4. Communicative motion
   • Performer–performer or performer–perceiver.

(Jensenius et al. 2010, Godøy 2010)
Dance motion

- Sound-accompanying motion: All kinds of body motions that are not necessary to produce the sound (for example, dancing).

- Usually, but not always, some kind of synchrony between events in the music and the sound-accompanying body motions.

- *Gestural affordances of musical sound*
  - Musical sound affords many sound-accompanying gestures.
  - Many choreographies to the one and same musical excerpt.

(Godøy 2010, pp. 110–111)
Gestural Affordances of Musical Sound

Action–Sound Types

1. Impulsive
2. Sustained
3. Iterative

The barber scene from Charlie Chaplin’s *The Great Dictator* (Godøy 2010)
Dance motion

• Dancers often follow or contrast with the musical sound (Jensenius et al. 2010, p. 13).
Correspondences between dance motions and musical sound

Examples:

• Rhythm patterns.

• Pitch: Up/down contours.

• Loud, soft, gentle, heavy, smooth, punchy… (Music Moves: 2.14 How do we analyse sound?).

• Emotions.

• Event density (event: perceptible change in an acoustical environment).
<table>
<thead>
<tr>
<th>Space:</th>
<th>Direct</th>
<th></th>
<th>Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time:</td>
<td>Sustained</td>
<td></td>
<td>Sudden</td>
</tr>
<tr>
<td>Weight:</td>
<td>Light</td>
<td></td>
<td>Strong</td>
</tr>
<tr>
<td>Flow:</td>
<td>Free</td>
<td></td>
<td>Bound</td>
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</table>
Relationships between body motion and musical structural features

<table>
<thead>
<tr>
<th>Body Motion</th>
<th>Musical Structural Features</th>
<th>LMA</th>
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</thead>
<tbody>
<tr>
<td>Amount of motion</td>
<td>Few</td>
<td>Loudness</td>
</tr>
<tr>
<td></td>
<td>Much</td>
<td>Soft</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hard (Loud)</td>
</tr>
<tr>
<td>Motion articulation</td>
<td>Jerky</td>
<td>Articulation</td>
</tr>
<tr>
<td></td>
<td>Smooth</td>
<td>Staccato Legato</td>
</tr>
<tr>
<td>Motion speed</td>
<td>Slow</td>
<td>Tempo</td>
</tr>
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<td></td>
<td>Fast</td>
<td>Slow</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fast</td>
</tr>
</tbody>
</table>
Music and dance correspondences

How do aspects of music and motion work together so that they are perceived as corresponding?

(Haga 2008)
Free Dance to Music

- Non-periodic, twentieth-century Western music in the classical tradition.

- Video recordings.

- Three trained dancers (students at the National Academy for Ballet)

- Improvise motions that they felt matched the music.

(Haga 2008)
Ligeti’s *Ten Pieces for Wind Quintet* (20 seconds)
Free Dance to Music

• Low density of onsets: the dancer in a slow and smooth motion.

• Four observed sequences: For example, (1) one chunk, (2) subtle jerk, (3) change in direction, and (4) weak emphasis when the hands meet.

• Smooth articulations: gradual transitions between sequences, changes in direction, and speed (low level of activation).

(Haga 2008)
Entrainment

The process where two or more independent rhythmic processes interact and synchronize.

Entrainment in a musical context:

• Entraining with the metrical levels in the music; for example, moving the feet in synchrony with the pulse level or subdivision levels.
Exercise

“Chose an excerpt (10–30 sec) from a video where you experience that the correspondence between the music and the dance is particularly good”.

1. Explain, in your own words, why you chose this excerpt.

2. Discuss whether the music and dance correspondences that you experience in the videos can be described using one or more of the following theories:
   - Sound-accompanying (sound tracing).
   - Action–Sound.
   - Musical features–Features of dance (Laban, Leman, Haga).
   - Entrainment.
Music-Related Motion

1. Sound-producing
2. Ancillary and/or Sound-facilitating
3. Sound-accompanying
4. Communicative
Dance motion

• Dancing people synchronize to the pulse of the music (van Noorden 2010, p. 172).

The pulse

• Can be represented by sonic events, but not necessarily.

• *Beat induction*: the pulse does not need to be sounded in order to be experienced.
“Standard Rhythms”/“Time lines” and Dance

Standard rhythms: a genre-specific recurring rhythm patterns that identifies the pulse, though is aligned with it.

- West and Central African dances: The pulse is indicated by “time lines,” but visible in the corresponding dance (Agawu 2003).

- Brazilian drum patterns: The pulse is not in the musical sound, but in the musicians’ and the dancers’ body motion (Kubik 1990).
Afro-Cuban Rumba

Standard rhythm in Afro-Cuban Rumba: clave pattern
Musical Experience

• Personal musical experience.
Aserejé ja de je de jebe tu de jebere seibiunouva
Musical Experience

• Personal musical experience.

• *Music culture*: when a group of people shares the same musical experiences, conceptions, ideals, and norms.
Music culture and dance

- Music cultures where there is no word for “music” that does not also encompass dance, playing, singing, and the social event:
  - Tanzania: *Ngoma*, which means drum, dance, and play/party, *Kucheza*, which includes playing and dancing (Nielsen 1985).
  - Tiwi people in northern Australia: *yoi* - dance, songs, and rhythms (Grau 1983).
Music–Dance

Music styles
- where the music and the dance have developed together under mutual influence.
- with an intrinsic relationship to a corresponding dance.

*Music–Dance* does not only refer to musical styles where music is *only* performed with the corresponding dance, but where the music should be understood in relation to the corresponding dance.

(Haugen 2016)
Music–Dance Performance
Music–Dance Performance

Common understanding:
Shared experiential knowledge of the music culture.

Dance motion
Sound-producing action
Periodic Non-Sound-Producing Body Motion

Sound
Interaction
Body Motion
Gestural renderings of musical sound

- A *motor-mimetic* perspective on music: a relationship between simulated sound-producing actions and musical sound (Godøy 2010).

- Musical sound activate motor areas in performers’ brains (Wilson and Knoblich 2005).

- Observation of silent “sound-producing” actions activate auditory areas in performers’ brains (Haslinger et al. 2005).
Gestural renderings in Music–Dance

In music–dance:

• A *motor-mimetic* perspective: images of the motion patterns in the dance may inform the musician’s playing, even when dancers are not present.

• Musicians, dancers, and perceivers may share an understanding of the underlying reference structures through commonly shaped mental images.
Samba

(Haugen & Godøy 2014)
Samba

Systematic microtiming:

Medium–short–medium–long duration pattern on 16th-note level.
Samba dancer

Heels

Vertical motion

Time (sec)

Audio waveform
Right heel
Left heel
Samba percussionist

Heels

Vertical motion

Time (sec)
Samba
Samba
Samba

Let’s try!
Samba

Images of the motion patterns in samba dance may inform the percussionist’s playing.
Music–Dance

“Participants without the tacit knowledge of how movements are related to sonic patterns will listen, move and understand it differently.”

–Naveda 2011, p. 51
Summary

• Correspondences between features in the musical and dance motion.
  • Action–Sound types, entrainment, sound-tracing.

• Synchrony between metrical levels in the music and dance motion.

• Sound-producing.

• Personal experience.

• Music culture. In some music cultures music and dance are intrinsically related.

• Dance motion is not necessarily a response to features in the musical sound. Intrinsic part of the music.
Next Friday…

Student presentations

• Upload your poster to Fronter (“Student presentations”) no later than November 2 (Wednesday).

• Prepare a short oral presentation of your poster (1–2 minutes).