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Restricted visual spatiality and semantic evaluations in recognition of the articulation fluency in dance movement.

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Restricted visual spatiality and semantic evaluations in recognition of the articulation fluency in dance movement

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Abstract

The rhetoric relating to the theory and pedagogy of dance is abundant with terms specifically associated with musical interpretation. Designations that are typically employed for articulatory aspects of musical sound contribute towards defining characteristics of movement. In this way, movement can be qualified in terms of legato-staccato.

In the performative encounter between music, dance and the dancer, as with an instrumental group, the performers adjust these articulatory qualities.

With regard to sound production, whilst the legato-staccato dichotomy is described by variables - such as the time interval between the extinction of one sound, and the attack of the following sound (offset-onset interval, Gabrielsson 1987), and the relative intensity of an attack between other attacks – in the field of movement, this description appears less systematically. However, dance professionals (dancers and musicians) have an intuitive knowledge of these details.

The aim of this research is to determine whether the articulatory characteristics of movement are understood in a holistic or a categorical (isolated from other dynamic characteristics, such as intensity, velocity etc.) manner.

The differences in valuations between different attributed adjectives will allow the consideration of the compositional or holistic nature of legato and staccato qualities of movement.

The results will contribute towards the advancement of the study of conciliation between dancers and musicians from the perspective of the intersubjectivity of the second person.

Grosso Laguna and Shifres (2011) and Grosso Laguna (2015), proposed the study of the beat of the dancer's movement, considering the time lapse between successive situations of 0 velocity in the same part of the body. In other words, calculating the time between successive 'velocities of the spatial visual indicator equal to zero' (VIVE = 0). 0 Velocity is produced during an impact, a scape, or a change in direction, and allows us to establish relations of maximum flection and maximum extension in each trajectory.

The temporal lapse between two consecutive V0's of the same indicator would be evidence that the dance musician considers conciliating and adjusting his sound performance, regarding rhythmic, metric and articulatory characteristics according to the dancer's movements.

A self-administrated test was conducted, in which dancers, musicians, non-musicians and non-dancers (n = 60) observed 8 video clips – without sound – of a professional dancer executing the same sequence of movement in both legato and staccato articulations (2), frontal and profile shots (2), full body and incomplete body shots (2).

The sequence was comprised of movements, which alternated periodically and isochronally between corporal situations of maximum flection and extension (pendulum movements) (figures 1 and 2). The participants had to imagine the music which accompanied the movements on the video clips and the classify what they had seen according to a series of opposing adjectives (24), referring to; (i) The fundamental Dynamic Pentad and Forms of Vitality, Time, Space, Movement, Force, Intention/Directionality (Stern 2010); (ii) musical terms relating to articulation (e.g. legato — staccato) e consonance (e.g. discordant—harmonious) and; (iii) dynamic qualities attributable to both domains, such as Time (e.g. fast—slow).

Conclusion

- Musical rhetoric (regarding articulation) in language applied to dance appears to have a cognitive reality.
- The feet may be giving an idea of weight that is associated with legato mode. While the staccato mode allude to a lighter quality.
- The staccato quality does not depend on the time between the IVE of the foot and the maximum flection and extension.
- The quality of the musical articulation of movement is not associated with other dynamic qualities.

References

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Fig 1 / Visual spatial Indicators are represented by Foot phalanx (red circle); heel (yellow c.); top of the head (Blue c.); finger phalange (green c.). The maximum flexion and extension dynamic position are defined by the VIVE=0 top of the head and finger phalanx.

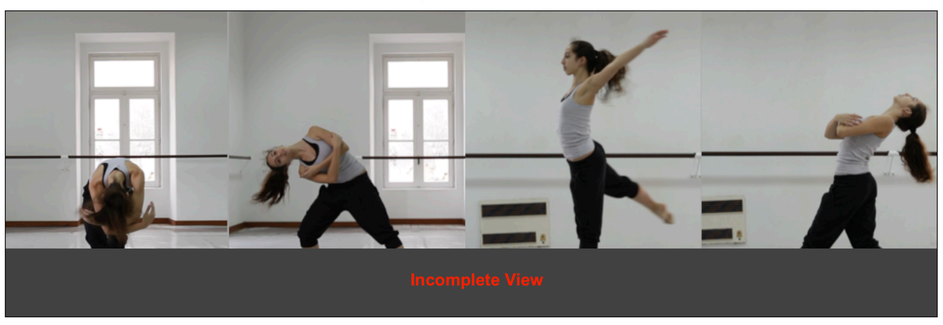
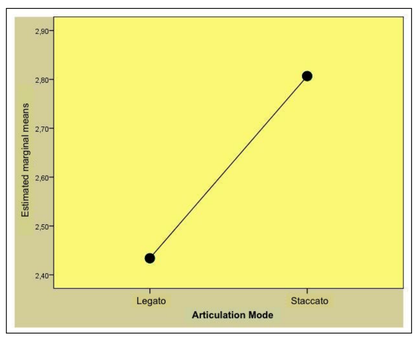
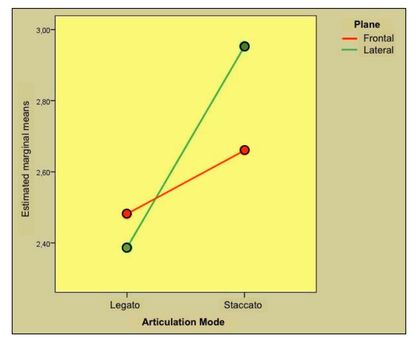


Fig 2 / Incomplete view. Visual restriction of the feet.

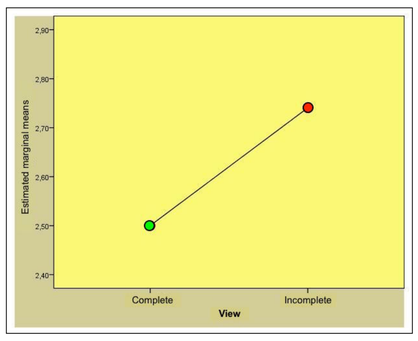
Hypothesis 1: If the viewer can not see any of these IVE has less chance of discriminating articulatory movement quality

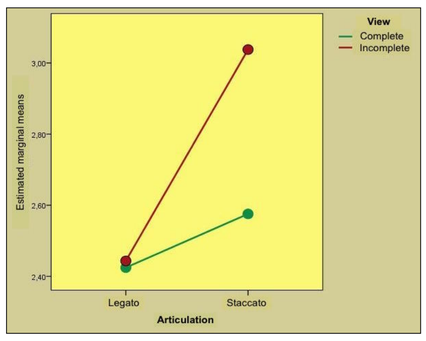


Graph 1 / The Participants recognize the sequence mode.



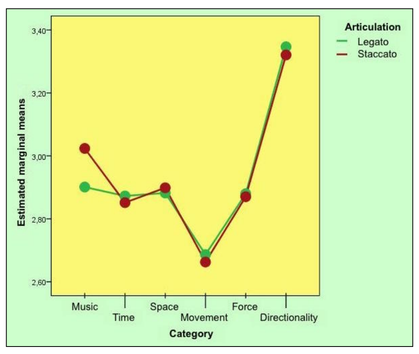
Graph 2 /The modality is best recognized when viewed sideways





Graph 3 - 4 / The incomplete views seem to favor the recognition of staccato mode.

Hypothesis 2: articulatory mode is associated with general dynamic qualities



- Dynamic categories have very low predictive power of the articulation variable. Predictions:
- Space and Force 9.8%
- Time and Space 9.9%
- Time and Force 14.4%
- Space and Time 17.3%

Graph 5 / Musical descriptions vary with the mode of sequence. The other categories are insensitive to modality.

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