Interdisciplinary Panel 4: Looking and listening

Listening to dance...with our bodies and minds

Stephanie Jordan, Research Professor in Dance, Director of Centre for Dance Research, Roehampton University

Through our bodies, we empathise not only with dance, but also with its accompanying music. So, what happens when we experience dance and music together, or ‘choreomusically’? Evidence now suggests that audio, visual and motor imagery share a common representational and neuropsychological base, even though music can be subversive as much as supportive in the partnership with dance. In this regard, might it be useful to explore the interface between perception and empathy in our discussion of dance and music? In experiencing dance and music together, is the response one of integration or of two (or even more) separate ‘voices’ or ‘bodies’, each of which invites empathetic response or ‘virtual motion’? My paper raises questions about how we respond to choreomusical structures, drawing from my experience of integrating ideas from cognitive science into dance analysis (independently and in experimental workshops). My research, though primarily from the point of view of perception, raises key questions about empathetic responses to, or embodiment of, the two simultaneously-presented media.

Although a number of valuable crossmodal studies deal with basic temporal and spatial concepts, there are few to date that have foregrounded relations (or structural meetings) between the more complex and extended stimuli of actual dance and music. In the two seminal experiments (Krumhansl and Schenk (1997); Mitchell and Gallaher (2001)), empirical evidence demonstrated that dance can reflect musical formal divisions, pitch level, dynamics and emotions. Neither study, however, attended to oppositional or interactive possibilities.

My paper will focus on interaction, and particularly on points of congruence where dance changes our experience of music or vice versa. Often, the change seems to stem from one direction, determined partly by whether we have already had experience of one medium by itself. But Mark Morris claimed recently: ‘people don’t see rhythm, not nearly as well as they hear it.’ He meant seeing and hearing and feeling kinesthetically.

A recent study by Afanador et al. (2008) testing crossmodal perception of musical tempo and speed of dance movement suggests that, through ‘aural capture’, different tempi may change perceptions of (and feelings in our bodies about) observed movement speed. But music might also create an impression of greater movement impact, or heightened or sharpened movement dynamics.
Working in reverse, with ‘visual capture’, dance movement can enlarge or diminish our impression of pitch change, or it can ‘freeze’ a note/chord (Vroomen and de Gelder (2000)), pulling it out of context as a structural ‘moment’. That moment can charge us with virtual kinaesthetic activity, sometimes producing a sense of greater tension, in other circumstances encouraging a sense of relaxation.

My paper will be illustrated by repertory examples (e.g. Morris, Balanchine, Baganova, on DVD or shown by me ‘live’). It will show awareness of the larger, complex context of dances with music, their call upon our experience as experts or novices, our cultural background, our memory of what has already happened in a piece and our aesthetic judgements.

I will also argue that work from cognitive science crossing music and dance can provide useful tools for the profession—choreographers, dancers and dance teachers—as well as for dance analysts.

Bibliography:


Krumhansl, Carol L. and Diana Lynn Schenck, ‘Can dance reflect the structural and expressive qualities of music?: a perceptual experiment on Balanchine’s choreography of Mozart’s Divertimento No. 5,’ Musicae Scientae, 1/1 (1997), pp. 63-85.

Saygin, Ayse Pinar, Jon Driver and Virginia R. de Sa, ‘In the footsteps of biological motion and multisensory perception: judgements of audio-visual temporal relations are enhanced for upright walkers,’ Psychological Science, 19/5 (2008), pp. 469-75.
