Global Arts and Psychology Student Conference (GAPS2017)
28-29 April 2017
Boston, Graz, La Plata, Sheffield, Sydney

Global Program and Abstracts

Graz: Mozartgasse 3, EG: 23.02, 23.03, 23.01, Studio
1. Introduction

GAPS is about the arts and the people who create and appreciate them, from a psychological perspective. The arts include auditory arts (music, sound design), visual arts (painting, architecture), literature, drama, opera, digital arts, and so on. We will focus on music. There will be about 8 research presentations at each hub. There will also be 3 keynotes, which will be viewed by all hubs.

To our knowledge, GAPS will be the world’s first semi-virtual academic conference. GAPS will strike a new balance between face-to-face and virtual communication, and between activities on different continents, to create a truly global conference. Every talk will be both live and virtual — presented to a live local audience and viewed elsewhere, either in real time or with a time delay. Live and virtual presentations will run in parallel at every hub. In July 2018, the new format will be scaled up for the international music psychology conference ICMPC15/ESCOM10.

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2. Participating hubs and organization

Graz:
Centre for Systematic Musicology
University of Graz
Austria

Conference Manager: Maximilian Burkard
Vice-Manager: Julia Ebner
Technical Manager: Nils Meyer-Kahlen
Programming Manager: Theresa Schallmoser
Promotion Manager: Hanna Pell
Refreshments Manager: Magdalena Ramsey
Room manager: Michael Schlott
Senior organizer: Richard Parncutt

Sydney:
School of the Arts and Media
University of South Wales
Australia

Conference Manager: Riza Veloso
Technical Manager: Anthony Chmiel
Programming Manager: Marco Susino
Promotion Manager: Thomas Dickson
Senior organizer: Emery Schubert
Sheffield:
Department of Music
Sheffield University
UK

Conference Manager: Shen Li
Technical Manager: Caroline Curwen
Programming Manager: Tim Metcalfe
Promotion Manager: Ioanna Filippidi
Conference Assistant: Nicola Pennil
Senior organizer: Renee Timmers

La Plata:
Laboratorio para el Estudio de la Experiencia Musical
Universidad Nacional de La Plata
Argentina

Conference Managers: Alejandro Pereira Ghiena and Joaquín Pérez
Technical Manager: Sebastián Castro
Programming Manager: Camila Beltramone
Promotion Manager: Matías Tanco
Refreshments Manager: Demián Alimenti Bel
Room manager: Alejandro Ordás
Language Manager: Nicolás Alessandroni
Senior Organizer: Isabel Martinez

Boston:
Friedman School of Nutrition Science and Policy
Tufts University
USA

Conference manager: Victoria Chase and Parke Wilde
Rooms manager: Mehreen Ismael
Program manager: Inbar Vanek, Andrea Norton, Ola Ozernov-Palchik
Refreshment manager: Victoria Chase
Senior academic organizer: Parke Wilde, Friedman School of Nutrition Science and Policy, Tufts University, Boston USA, assisted by Ani Patel (Dept. of Psychology, Tufts University), Morwaread M. Farbood (Dept. of Music and Performing Arts Professions, New York University), and Andrea Norton (Beth Israel Deaconness Medical Center, Boston)
Tonal center in music performance: searching for embodied cues in the temporal unfolding of the musician's performance

Background

In tonal music, the "center" is the most resilient metaphor for the tonic note. Both in music theory and in the music notation systems, there were developed visual representations and schematic models to explain the relations between tones in a musical piece. To provide a definition of the tonal center, with the tonic as the highest hierarchical event of the tonal system, it is necessary to involve a complexity of meanings brought about by different concepts like pitch, intervals, harmony, and scales, among others. In this paper, we assume that the tonal center is understood and structured through metaphorical mappings from a small set of fundamental experiential concepts, in the way of Lakoff & Johnson's Conceptual Metaphor Theory. Previous experimental work in music cognition showed that dynamic, imaginative representations of image-schemas serve cross-domain mapping processes that are used to produce metaphorical interpretations of musical sound in the cognition of prolongational structures.

Aim

The aim of this work is to study the performer's movement linked to the experience of tonal center. After defining the relations between the tonal unfolding of a musical piece and the analogical/metaphorical representations of musical tones in space, we discuss the tonal center as an embodied concept in music cognition.

Method

An observational study was run on the performance of Mozart’s K. 333, 1. First, we analyzed its tonal structure using a Schenkerian approach. Second, we performed an annotated movement observation of Lang Lang’s professional broadcast, using ANVIL, aimed at describing the spatial orientation of head and torso's movements. Third, we registered -using a Motion Capture System- the Mozart’s performance by a professional pianist (+20 of experience). Movement analysis generated a temporal trajectory of the head’s markers related to the hip’s marker (body’s center of gravity) taken from an upper view of the performer’s movements.

Results

It was predicted that the spatial trajectories might be related to cross-domain mapping processes involving image-schemas instantiated in performance. Results show movements oriented towards spatial locations that appear to function like centers of attraction at different structural moments: (i) movements around the balance position’s center were found throughout the initial tonic prolongation; (ii) an increasing tendency to move away from the body center onto peripheral space accompanied music direction onto the structural dominant of the phrase; (iii) return to the initial body center position after the first theme’s cadence; and (iv) modulation process redirected movement’s tendency around a different center position before the second theme.

Conclusions

Musician’s body trajectories in performance were interpreted as terms of center/periphery image-schemas, formed in different locations of the performance’s space. They are understood as embodied cues that support a metaphorical cognition of the tonal center as it unfolds dynamically in time. Future research will inquire the meanings of movement performance in the spectators’ experience of tonal center. Direct correspondences between movement and sound production can also be studied in relation to conventional meanings of gestures in social cognition about tonality and performance, and how these are involved in metaphorical music cognition.

Keywords: embodied music cognition, performance, tonality, center, metaphor

Topics: Cognition, memory and language, Performance and timing, Structure, tonality and metre