Proceedings of the 12th International Conference on Music Perception and Cognition and the 8th Triennial Conference of the European Society for the Cognitive Sciences of Music, July 23-28, 2012, Thessaloniki, Greece
Cambouropoulos E., Tsougras C., Mavromatis P., Pastiadis K. (Editors)

Tonality and Affective Experience: What the Probe Tone Method Reveals

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ABSTRACT

Background

Musicians, music theorists, and music psychologists have long maintained that the tonal hierarchy is an important foundation for the affective experience of Western music. Tonal relationships are believed to engender expectancy, tension and surprise, and thus partake in diverse ways in music expression and meanings. The probe-tone technique (Krumhansl, 1990) has revealed the psychological reality of tonal hierarchy for listeners, including those with no musical training.

Aims

This set of studies aims to use the well-established probe-tone technique to explore the relationship between perceptions of tonal hierarchy and aspects of musical expression. Specifically, we examine how listeners' goodness-of-fit ratings of tonal scale degrees correlate with their ratings of expressive qualities conveyed by these scale degrees.

Method

In Experiment 1, people with and without formal musical training performed two tasks (in counterbalanced order), using identical stimuli and procedure for both. One is the original probe-tone task (based on Krumhansl & Kessler, 1982), rating on a 7-point Likert-like scale the goodness of fit of each of the 12 chromatic tones, played after the establishment of a tonal context. In a second task, participants instead rated the degree of tension conveyed by each probe tone. In Experiment 2, a new group of participants (musically trained and untrained), once more replicated the original probe tone task. In a second task, however, participants reencountered the same stimuli but rated how much they liked each probe as a continuation of its context, once more on a 7-point Likert-like scale.

Results

Results will be reported at the conference. In Experiment 1, we expect tension to relate inversely to goodness of fit – the poorer a probe fits with its context, the more tense it should seem. In Experiment 2, we expect a more complicated relationship between liking and goodness of fit. In particular, we anticipate an interaction, with musical training modulating the relationship between goodness of fit and aesthetic preference. Furthermore, (assuming similar results on the goodness-of-fit task of both experiments), we will perform a between-groups test comparing results from the tension task in Experiment 1 with results from the liking task in Experiment 2. This comparison will present a way into the complex subject of tonality's role in the multidimensional experience of musical affect.

Conclusions

By making simple modifications to a well-established methodology in music perception, we hope to gain preliminary information about the relationship between tonality and multidimensional components of affective experience, as well as about the relationship between these dimensions themselves.

Keywords

Tonality, tension, aesthetics, emotion, musical training

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