THE GROUP ONLINE RESPONSE DIGITAL INTERFACE (GORDI) AS A TOOL FOR ONLINE MEASUREMENT OF MUSIC PERCEPTION

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Background

In recent years online measurement of music perception and sensation has become a significant paradigm in the investigation of human information processing under realtime conditions. For example, Madsen & Frederickson's (1993) development of the „Continuous Response Digital Interface" (CRDI) and Schubert's (2001) „Emotion Space Lab" (ESL) demonstrate the usefulness of such a device for the online measurement of music sensation. However, existing devices can only be used in procedures with a single subject or a very limited number of participants. The GORDI is a further development of a device first applied by Gerlach & Hemming (1994).

Aims

In this demonstration we will show how group online measurement of up to 16 subjects can be realized by a combination of a low cost MIDI converter and a sequencer software. By using GORDI, we can easily increase the number of test subjects.

Method

The GORDI is based on a 16 channel drum-to-MIDI converter which is attached to a standard sequencer software (Cubase). Subjects listen to a soundfile to be played from the sequencer and hold a push button in their hand for indication of particular events (e.g. wrong notes, phrase boundaries or ‚chills' induced by music). A push of a button is recorded as a discrete MIDI event on the sequencer's tracks. Recordings of subjects' markers synchronized with the original stimulus can be played back as a response feedback. This demonstration of GORDI will use stimuli from the Janata et al. (in press) experiment on online detection of wrong notes (socallec ‚tonal pop-outs') within a continuously modulating melody.

Results

We will demonstrate that GORDI is a useful, low-cost and easy to handle tool for the efficient data collection in groups of subjects. By exchange of the stimulus' soundfile, the device can easily be adapted to different research questions. Its intuitive handling by subjects and investigators make it ideal for applications in music psychology as well as for informal classroom demonstrations.