MUSIC LISTENING PRONENESS MODERATES THE EFFECTS OF EYES-OPEN VERSUS EYES-CLOSED MUSIC LISTENING ON EMOTION-RELATED SUBJECTIVES AND ELECTROCORTICAL RESPONSES

Kari Kallinen
Helsinki School of Economics, Knowledge Media Laboratory, Finland

Background

Listening to music often takes place in a place where what we see is not connected to what we hear (e.g., listening to music at home). Thus it may be argued that listening to music with eyes-closed may generate a more music-focused listening experience, because the visual stimuli that is not related into the music is blocked.

Aims

The purpose of the present study was to compare the emotion related responses to listening to music with eyes-open and eyes-closed. It was hypothesized that listening to music with eyes-closed would generate a more intense experience and elicit more imaginary activity than listening with eyes-open.

Method

Electroencephalography (EEG) from F3, F4, C3, C4, P3, P4, T7 and T8, electrocardiogram (ECG), electrodermal activity (EDA) and electromyography (EMG) were recorded continuously in right-handed subjects with eyes-open and eyes-closed during rest periods and during listening to pieces that differed in terms of valence (i.e., positive-negative) and arousal (i.e., high and low). Participants rated their emotional mood instantly after each music piece using 5-point scales that consisted of 16 adjectives chosen from the emotion-circumplex. Background factors (e.g., gender, age, and music listening habits) were collected before the experiment.

Results

At present, more data is still being gathered. However, the preliminary results suggest that self-reported emotion tend to be more intense in eyes-closed than in eyes-open condition. It was also found that subjects seem to experience the listening to music with eyes-closed as less negative than listening to music with eyes-open, as indexed by the corrugator supercilii (CS) facial muscle activity. With regard to brain activity, listening to music with eyes-closed generated higher frontal and parietal alpha activation in subjects than listening with eyes-open, as compared to the relevant resting conditions.

Conclusions

Most of the EEG studies use eyes-open conditions. However, the present study suggest that when using auditive stimuli, the eyes-closed listening may give more valid results.

ISBN: 3-931852-66-0
ISSN: 1617-6847