Surveyed Emotional Responses to Musical Chord Progressions Imbued with Binaural Pulsations

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Abstract : Applications of the binaural sound experience are wide-ranged. This paper focuses on the interaction between binaural tones and human emotion with an aim to apply the resulting knowledge artistically. For the purpose of this study, binaural music is defined as musical arrangements of sound which are made of combinations of binaural difference tones. Here, the term 'binaural difference tone' refers to the pulsating tone heard within the brain which results from listening to slightly differing audio frequencies or pure pitches in each ear. The frequency or tempo of the pulsations is the sum of the precise difference between the frequencies two tones and is measured in beats per second. Polyrhythmic pulsations that can be heard within combinations of these differences tones have shown to be able to entrain or tune brainwave patterns to frequencies which have been linked to mental states which can be characterized by different levels of attention and mood.

Keywords : binaural auditory pulsations, brainwave entrainment, emotion, music composition

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