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Review on the Contribution of Immanent and Performed Accents to Emotional Expression in Short Tone Sequences

Several studies have already shown that musical factors such as harmony, pitch level, melodic properties affect the expression and perception of emotional expression. However, there is no research performed on how these factors interact with each other for perceived emotional expression. This paper presents two experiments designed for such purpose.

The author listed lots of related work as the background for this paper. Generally speaking, there are so many conclusions from these work, the author adopted several as the assumptions in his experiments. These assumptions are either general enough for any experimental purpose on this issue or simplify the design of experiments. These assumptions are that the tones of a melody are not all equal importance for emotion expression; implicit harmonic function of certain tones maybe important for perceived emotional expression; tense or unstable notes are good for negative expression; relaxed or stable notes are good for positive emotion expression; happiness is better represented by a note in major mode; sadness by notes important in minor mode; and finally, if notes are marked by either immanent or performed accents will increase listeners' perception.

Two experiments were designed and performed. The first one focused on the effect of immanent accent. The author designed 4 major music pieces, which he referred as progressions. In each progression, the last high-pitched tone is of special interest and is called the target-tone. Then, for each progression, the author made lots of melodic and rhythmic variation. Totally, there are 72 pieces used in the experiment 1.

The results of experiment 1 showed that progressions in minor mode in general represent sadness and anger; progressions in major mode in general represent happiness and tenderness; short-short-long rhythm patterns were perceived as the angriest pattern; descending direction was perceived as more sad than the opposite direction; and progression 1, 3, and 4 are the best for representing happiness, sadness, and anger, respectively.

The author also showed the largest contrast difference within a specific progression. My impression is that these results are sort of specific, which cannot be inferred as some general principles when a larger context of music pieces is used.

In experiment 2, the author investigated the effect of performed accents on musical perception. A subset of musical pieces from experiment 1 was used. Five types of performed accents were designed and totally there were 60 music pieces. For each music piece, the subject only rated it on a single metric: any music piece from progression 1 was rated on the scale of happiness; from progression 3 was rated on the scale of sadness; and from progression 4 was rated on the scale of anger.

The results in my opinion were not so decisive. For progression 1 and 3, less than half of the results can be accounted for a regression model. General speaking, pitch is the most

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significant factor for representing performed accents. Higher pitches are better for representing happiness and anger. Lower pitches are better for representing sadness.

These two experiments showed all notes are not of equal importance for emotional expression. The effects found in experiments were small. However, they provided evidence for proving that music factor interactions exist for musical perception.