

DANCE MUSIC, MOVEMENT AND TEMPO PREFERENCES

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Background

Research on tempo preference showed evidence for the existence of a preferred tempo slightly above 120 bpm. This tempo can be associated with the most natural speed for the human body, it is as if the body is a resonator that starts to move under the influence of an external force: the beat of the music.

Aims

Investigating tempi as perceived in dance music, we will simultaneously try to confirm the existence of a preferred tempo and to provide some further insight. Clearly not all music has a tempo of between 120 and 130 bpm. We will see if other tempo distributions can be associated with certain styles and if there is an evolution through recent history.

Method

We collected data from so-called bpm-lists: lists used and compiled by DJs containing the tempi of their records. Since these data are necessarily perceptually relevant, the whole set of data can be seen as the results of a big experiment on tempo perception. We will investigate the distribution of the tempi, compare lists focussing on different musical styles and look at the evolution of the distribution through the years.

Results

We see that the general distribution of the tempi shows a clear preference for tempi around 130 bpm (close to preferred tempo) and a large majority of the tempi (> 90%) falls within the 'tempo-octave' 80-160 bpm. This confirms earlier findings. However, some lists, associated with certain musical styles, show clearly different distributions, with peaks around clearly different tempi.

Conclusions

Whereas most dance music follows and evokes our natural movement, some musical styles want to elicit a different type of expression associated with longer (slower) or shorter (faster) movements. This is explained by the association of some tempi with specific types of repetitive movement. It thus provides a link between musical and gestural expression.