

UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Impact of dancers' music-induced emotions on their body movements

Permalink

<https://escholarship.org/uc/item/1s1272t1>

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 46(0)

Authors

Natsume, Yukina

Murata, Aiko

Honda, Kazuaki

et al.

Publication Date

2024

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

Impact of dancers' music-induced emotions on their body movements

Yukina Natsume

NTT Communication Science Laboratories, Atsugi, Japan

Aiko Murata

Nippon Telegraph and Telephone Corporation, Atsugi, Japan

Kazuaki Honda

Nippon Telegraph and Telephone Corporation, Atsugi, Japan

Naoki Saijo

NTT Communication Science Laboratories, Atsugi, Kanagawa, Japan

Abstract

Dancers vividly express joy, grief, and other emotions through their body movements, which reflect the deliberate expression of certain emotions and also the unintentional emotions. Research has shown that the speed of performers' movements varies according to the emotions deliberately expressed. However, no study has examined the non-deliberate emotions. Therefore, this study examined dancers' unintentionally exposed emotions through their movements. Seventeen semi-professional dancers performed a neutral choreography to three music types—joy-inducing music, sadness-inducing music, and a metronome—and their performances were compared. Changes in the dancers' body movements were measured using a motion-capture system. Results showed that body movements were generally faster and more dynamic with emotion-inducing music compared to the metronome. While the speed of pelvic movements was more when they danced to joy-inducing music, arm movement was more apparent for sadness-inducing music. These findings help understand the unintentional emotion-expression dynamics in dance.