

Assessing static and dynamic effects of mindfulness meditation on peripersonal space

ABSTRACT:

Background

Phenomenological research on mindfulness meditation has highlighted experiences of diminished separation between the self and the external world. The peripersonal space (PPS) serves as a sensory representation of the self and the demarcation between self and others. This study probes mindfulness's impact on PPS modulation, delving into its effects on self and self-other representation.

Aims

Exploring the impact of trait and state mindfulness on PPS modulation, comparing PPS between experienced meditators and non-meditators and assessing PPS changes following a short focused-attention meditation (FAM) session. The study leverages the audio-tactile task paradigm to measure PPS alterations.

Method

22 experienced meditators and 26 non-meditators participated in the study. In the audio-tactile task participants responded to tactile stimuli while a sound was near or far from their bodies.

Results

Findings indicate significant PPS modulation post-FAM in experienced meditators, alongside trait differences between them and non-meditators. These results substantiate phenomenological reports from meditators regarding altered body boundary representations.

Conclusions

The study demonstrates mindfulness's capacity to modulate PPS, contributing to our understanding of self-other distinctions. Additionally, beyond the initial project scope, we conducted two studies into the pre-post effects of open-monitoring meditation (OMM) in a new group of 26 participants, and an ecological social interaction task (stop-distance task) to further elucidate the multifaceted relationship between mindfulness, PPS, and self-other representations, offering a comprehensive overview of mindfulness's impact on PPS and interpersonal interactions.

Keywords

Peripersonal space, Mindfulness, Self-other, Focused-attention meditation

Published Work:

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