

The power of mind: Altering cutaneous sensations by autosuggestion

ABSTRACT:

Background

Autosuggestion, a form of self-suggestion, follows the idea that the inner repetition of a thought can influence perception. Although widely integrated into modern life, the empirical evidence on whether autosuggestion can alter one's own perception is scarce.

Aims

This research investigates the modulatory effects of autosuggestion on perception, emotion and body representation, across six studies, using psychophysics and electrophysiological recordings.

Method

In Study 1, we designed an implicit experimental measure to assess the effects of reiterating the thought that a touch felt strong or weak, while minimizing response biases. Studies 2 and 3 examined the effects of autosuggestion and placebo. Studies 4 and 5 focused on the generalization of the autosuggestive phenomena to tactile localization and emotion attribution. Finally, Study 6 focused on the impact of haptic experiences with extreme body types on subsequent body perception.

Results

Study 1 revealed significant modulation of tactile perception through autosuggestion. However, Study 2 did not yield similar effects, highlighting potential limitations and challenges in the experimental design. Study 3 showed similar electrophysiological responses in placebo and autosuggestion. Study 4 did not yield statistically significant differences. Study 5's findings showed that autosuggestion exerts an influence on emotion attribution of facial expression. Finally, Study 6, revealed adiposity aftereffects in the haptic modality.

Conclusions

This investigation contributes valuable insights into the potential factors influencing the efficacy of autosuggestion. The findings encourage further exploration of these phenomena and opens avenues for developing targeted interventions in patient care and rehabilitation.

Keywords

Neurobehavioral coordination, Hyperscanning, Submovements, Intermittent motor control, Sensorimotor loops

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