THE POWER OF MIND: ALTERING PERCEPTION VIA AUTOSUGGESTION

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Background: Autosuggestion is one form of self-suggestion and follows the idea that the constant, inner repetition of a thought, can actively influence the way we perceive. This concept is nowadays used in many life and job coaching concepts, however, empirical evidence on how far and to what extent autosuggestion can indeed alter one's own perception is so far scarce.

Aims: In this project, we used psychophysics and electrophysiological recordings, to answer the question of how the inner repetition of an idea influences perception, emotion and body representation.

Method: In Study 1, we used an implict measurement, taking advantage of a known interaction between intensity and frequency perception in touch. We asked participants to modulate the perceived intensity of vibrotactile stimuli at the fingertip through the inner reiteration of the thought that this perception feels very strong or weak, while they were asked to report the perceived frequency. In Study 2, we compared electrophysiological responses to touch in a placebo condition and during autosuggestion that a touch feels stronger. For the placebo cream, we told participants that the cream produces an increase in the strength of tactile sensations. In Study 4, we asked participants to autosuggest or imagine, in two separate conditions, that an emotional-neutral face looks happy or sad, and measured adaptation aftereffects to the exposure to those autosuggested or imagined (in reality neutral) faces. Finally, in Study 4, we asked participants to autosuggest that a pair of uncrossed realistic rubber hands were their own, and test the effects of this manipulation on the ordering of two touches applied to their real crossed hands, aiming at reducing the crossed hands deficit.

Results: Using an implicit measure, we observed that after reiteration of the words "this touch feels stronger" or "weaker" participants perceived that touch as stronger or weaker than in the baseline condition (Study 1). Similarly, we observed an effect on the perceived emotional facial expression after suggesting that a preceding neutral face was happy or sad (Study 2). The effects of imagery and autosuggestion did not differ from each other. We are currently analysing Studies 2 and 4.

Conclusions: Our studies provide first experimental demonstrations that the inner reiteration of a thought alters participants' tactile perception and visual perception of facial emotion.

Keywords: Autosuggestion, Tactile perception, Placebo, Emotion, Body representation

Publications:

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