

Mind-matter interactions and the frontal lobes of the brain

ABSTRACT:

Background

A major barrier to acceptance of psi is that effects are small and hard to replicate under controlled experimental conditions. To address this barrier, we developed a novel neurobiological model to study psi based on the concept that brain acts as a psi-inhibitory filter. Our research in individuals with frontal lobe brain damage suggests that this filter includes the left medial middle frontal region.

Aims

To determine whether the left medial middle frontal region of the brain acts as a neurobiological filter to inhibit mind-matter interactions (MMIs).

Method

Reversible brain lesions were induced using repetitive Transcranial Magnetic Stimulation (rTMS). MMIs in healthy participants (n=108) were examined. Participants were randomly assigned to one of three groups: rTMS induced lesions in the left medial middle frontal region (n=36), rTMS induced lesions in the right medial middle frontal region (n=36), and sham stimulation (n=36). For the MMI task, participants were instructed to try to influence the output of a Random Event Generator that was translated into movement of an arrow on a computer screen to the right or left.

Results

Supporting our *a priori* hypothesis, significant psi effects were identified following rTMS inhibition of the left medial middle frontal lobe compared to sham stimulation when trying to move the arrow on the computer screen to the right ($\beta = -0.17$, LCL = -0.29 , UCL = -0.05 , $t = -2.80$, $p = 0.006$, $d = 0.38$).

Conclusions

Our study supports the concept that the brain acts as a psi-inhibitory filter, potentially transforming the way we view interactions between the brain and psi. Individuals with frontal lesions may comprise an enriched sample for detection and replication of psi effects.

Keywords

Autosuggestion, Placebo, Tactile perception, Emotion, Body representation

Published Work:

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