

EFFECTS OF TRANSCRANIAL MAGNETIC STIMULATION (TMS) ON SLOW CORTICAL POTENTIALS OF THE BRAIN

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Several studies show that humans can acquire control over EEG parameters like slow cortical potentials (SCP) by means of neurofeedback (Birbaumer, 1984; Kübler et al., 2001).

These results were used to develop a brain-computer interface (the Thought Translation Device, Birbaumer et al., 1999), which enables patients with locked-in syndrome to communicate via computer by self-regulating their SCP.

Unfortunately several patients as well as healthy subjects were not able to control SCP even after extended training. Is there a possibility to support those non-learners in learning to control their SCP?

The main goal of our study is to explore whether it is possible to shift the SCP by means of transcranial magnetic stimulation (TMS) and hence to develop further methods in order to facilitate the learning process. Results from current studies will be presented.

References

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