

Lucid dream induction by transcranial cortex stimulation: A test of the prefrontal hypothesis of lucid dreaming

Results:

Recent studies suggest that lucid dreaming (awareness of dreaming while dreaming) might be associated with increased brain activity over frontal regions during rapid eye movement (REM) sleep. By applying transcranial direct current stimulation (tDCS), we aimed to manipulate the activation of the dorsolateral prefrontal cortex (DLPFC) during REM sleep to increase dream lucidity. Nineteen participants spent three consecutive nights in a sleep laboratory. On the second and third nights they randomly received either 1 mA tDCS for 10 min or sham stimulation during each REM period starting with the second one. According to the participants' self-ratings, tDCS over the DLPFC during REM sleep increased lucidity in dreams. The effects, however, were not strong and found only in frequent lucid dreamers. While this indicates some preliminary support for the involvement of the DLPFC in lucid dreaming, further research, controlling for indirect effects of stimulation and including other brain regions, is needed.

Published Work:

Stumbrys, T., Erlacher, D., & Schredl, M. (2013). Testing the involvement of the prefrontal cortex in lucid dreaming: A tDCS study. *Consciousness and Cognition*, 22(4), 1214-1222.

Areas of interest:

Dream research, Consciousness research

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