Switching 'om'.

A creative boost by meditation and brain stimulation.

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Mindfulness is one of the most popular meditation techniques. It refers to the attitude of bringing the attention to the present moment by directing the awareness to one's own breathing, thoughts, physical sensations, and feelings that are experienced. This practice should be addressed in a non-judgmental way: Instead of reacting to those processes, the aim is just to note them and let them go.

Previous research has suggested the presence of a relationship between mindful states and creativity, but the heterogeneity of the constructs did not always make it possible to identify consistent results. However, based on the characteristics of mindfulness practice, greater influence on cognitive efficiency and convergent thinking could be expected, whereas lateral thinking is more often associated with mind-wandering states.

To investigate this possible double dissociation, 43 volunteers have been recruited and randomly assigned to 4 different experimental groups: Group A was guided with real meditation and received anodal tDCS (a-tDCS) on the right inferior frontal gyrus (IFG). Group B: real meditation + sham stimulation. Group C: fake meditation + a-tDCS. Group D: real meditation alone. Each training lasted 4 consecutive days and its efficacy was investigated by conducting a pre/post training assessment of cognitive and creative skills.

Coherently with our hypothesis, mindfulness meditation produced favorable results only in relation to convergent thinking. Fake meditation, on the other hand, modulated divergent thinking. Results will be discussed at light of the neurofunctional models of creativity, including the role of the IFG and the Default Mode Network (DMN).