

Supplemental Materials

tDCS Compliance and potential adverse effects

All subjects completed the entire experiment. During the first two minutes of the stimulation, irrespective of the nature of the stimulation (anodal or sham tDCS), most subjects reported the typical initial tingling and itching, predominantly under the scalp electrode. No adverse effects such as pain, skin burns, irritation, or headache were reported during or after the tDCS. Moreover, none of the participants were able to distinguish between the two stimulations and forced guessing was at chance level.

Stimulation-order effect

Following previous studies in the field (e.g., Fregni et al., 2005), we examined potential stimulation-order effect. To do so, we computed a 2 (Stimulation: anodal *versus* sham) x 2 (Order: anodal first *versus* sham first) ANOVA with repeated measurement on the first factor and latencies as dependent variable. Likewise, we also computed a 2 (Stimulation: anodal *versus* sham) x 2 (Probe Location: vicinity of threat cue *versus* vicinity of neutral cue) x 2 (Order: anodal first *versus* sham first) ANOVA with repeated measurement on the first two factors and latencies as dependent variable.

The ANOVA revealed a non-significant *Order* x *Stimulation* interaction, $F(1,17) = 1.02, p = .32, \eta^2_p = .05$. Likewise, the *Order* x *Probe Location* x *Stimulation* interaction was not significant, $F(1,17) = 1.02, p = .33, \eta^2_p = .06$. These results confirmed that the present findings did not mirror an order effect.

Task-related Gender-effect

Given that our sample only included female volunteers, we examined potential gender effect regarding the task-related material. We computed a 2 (Stimulation: anodal *versus* sham) x 2 (Probe Location: vicinity of threat cue *versus* vicinity of neutral cue) x 2 (Face-pairs gender: male *versus* female) ANOVA with repeated measurement on the three factors and latencies as dependent variable.

The ANOVA revealed that the 2 (Stimulation) x 2 (Probe Location) x 2 (Face-pairs Gender) was not significant, $F(1,18) = .51, p = .69$, implying that the gender of the face-pairs used during the probe discrimination task did not modulate the present findings.

References

Fregni, F., Boggio, P. S., Nitsche, M., Bermanpohl, F., Antal, A., Feredoes, E., Marcolin, M. A., Rigonatti, S. P., Silva, M. T., Paulus, W., & Pascual-Leone, A. (2005). Anodal transcranial direct current stimulation of prefrontal cortex enhances working memory. *Experimental Brain Research*, 166, 23–30.