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**Deontological morality can be experimentally enhanced by increasing disgust: A transcranial  
direct current stimulation study**

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## **Abstract**

Previous studies empirically support the existence of a distinctive association between deontological (but not altruistic) guilt and both disgust and obsessive-compulsive (OC) symptoms. Given that the neural substrate underlying deontological guilt comprises brain regions strictly implicated in the emotion of disgust (i.e. the insula), the present study aimed to test the hypothesis that indirect stimulation of the insula via transcranial direct current stimulation (tDCS) would enhance disgust and morality in the deontological domain. A randomized, sham-controlled, within-subject design was used. Thirty-seven healthy individuals (25 women) underwent 15-min anodal and sham tDCS over T3 in two different days, while their heart rate (HR) was recorded to derive measures of parasympathetic nervous system activity (HR variability; HRV). After the first 10-min of sham or active tDCS stimulation, participants were asked to 1) complete a series of 6-item words

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