Author's Accepted Manuscript

Expectations May Influence the Effects of Transcranial Direct Current Stimulation

Sheida Rabipour, Allan D. Wu, Patrick S.R. Davidson, Marco Iacoboni



www.elsevier.com/locate/neuropsychologia

PII: S0028-3932(18)30600-6

DOI: https://doi.org/10.1016/j.neuropsychologia.2018.09.005

Reference: NSY6909

To appear in: Neuropsychologia

Received date: 15 April 2018 Revised date: 14 September 2018 Accepted date: 14 September 2018

Cite this article as: Sheida Rabipour, Allan D. Wu, Patrick S.R. Davidson and Marco Iacoboni, Expectations May Influence the Effects of Transcranial Direct Current

Stimulation, *Neuropsychologia*,

https://doi.org/10.1016/j.neuropsychologia.2018.09.005

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

RUNNING HEAD: Expectations and tDCS outcomes

Expectations May Influence the Effects of Transcranial Direct Current Stimulation

Sheida Rabipour¹, Allan D. Wu^{2,3}, Patrick S. R. Davidson^{1,4,5}, Marco Iacoboni^{2,6,7}

*Corresponding Author: Sheida Rabipour, Vanier Hall #3040, 136 Jean-Jacques Lussier Private, Ottawa, ON K1N 9A8, 1-613-562-5800 ext. 1661. srabi091@uottawa.ca

Abstract

Growing interest surrounds transcranial direct current stimulation (tDCS) as a safe and inexpensive method for improving cognitive functions and mood. Nevertheless, tDCS studies rarely examine psychological factors such as expectations of outcomes, which may influence tDCS responsiveness through placebo-like effects. Here we sought to evaluate the potential influence of expectations on tDCS intervention outcomes. We assessed expectations of tDCS outcomes in 88 healthy young adults on three occasions: i) at baseline; ii) after reading information implying either high or low effectiveness of stimulation; and iii) after a single-session of sham-controlled anodal tDCS applied to the left dorsolateral prefrontal cortex, during working memory (WM) training. Participants were largely uncertain about the effectiveness of stimulation in improving cognitive function at baseline. High or low expectation priming using

¹School of Psychology, University of Ottawa, Ottawa, Ontario, Canada

²Ahmanson-Lovelace Brain Mapping Center, University of California, Los Angeles, USA

³Department of Neurology, David Geffen School of Medicine, University of California, Los Angeles, USA

⁴Heart and Stroke Foundation of Ontario Canadian Partnership for Stroke Recovery, Ontario, Canada

⁵Bruyère Research Institute, Bruyère Continuing Care, Ottawa, Ontario, Canada

⁶Department of Psychiatry and Biobehavioral Sciences, David Geffen School of Medicine, University of California, Los Angeles, USA

⁷Brain Research Institute, University of California, Los Angeles, USA

Download English Version:

https://daneshyari.com/en/article/11004703

Download Persian Version:

https://daneshyari.com/article/11004703

<u>Daneshyari.com</u>