NO EVIDENCE OF IMPAIRED VISUAL AND TACTILE METACOGNITION IN ADULTS WITH TOURETTE DISORDER

Arbuzova, P. [1,2]., Guo, S. [3], Koß, C. [4], Kurvits, L. [3], Faivre, N. [5], Kühn, A. A. [3], Filevich, E. [1,2], Ganos, C. [3]

[1] Department of Psychology & Berlin School of Mind and Brain, Humboldt-Universität zu Berlin
[2] Bernstein Center for Computational Neurosciences Berlin
[3] Movement Disorders and Neuromodulation Unit, Department of Neurology, Charité Universitätsmedizin Berlin
[4] Department of Psychology & Centre for Cognitive Science, Technische Universität Darmstadt
[5] Université Grenoble Alpes, Université Savoie Mont Blanc, CNRS, LPNC, Grenoble

Introduction

Tics in Tourette disorder (TD) are often preceded by premonitory urges (PUs).

PUs are described with somatosensory phenomena (tension, pressure, itching, burning, etc.)[1] and they might play a role in tic generation[2].

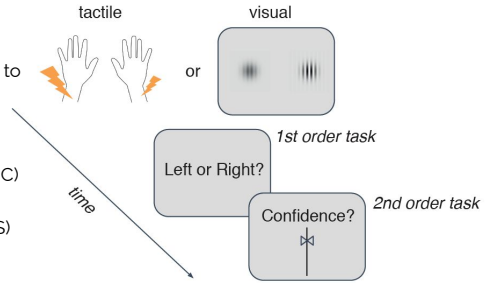
Despite subjective experience of patients with TD, they don't show higher objective somatosensory sensitivity[3,4]. This dissociation between subjective experiences and objective sensitivity could stem from the impaired metacognitive ability.

Methods

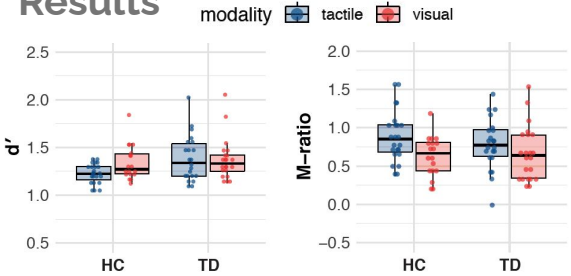
Meta-d'/d' (*m-ratio*) as a measure of metacognitive performance that corresponds to metacognitive sensitivity normalized by the first-order performance[5]

26 patients with TD and 24 healthy controls (HC)

Clinical scores to assess severity of TD (YGTSS) and intensity of PUs (PUTS)

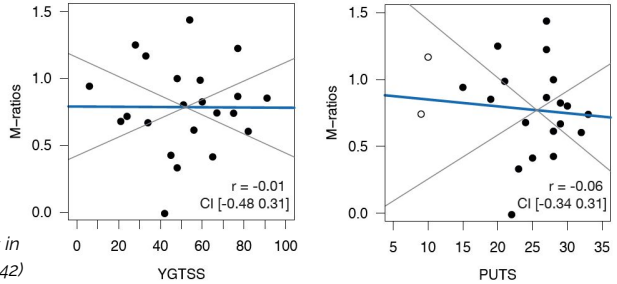


Results



No evidence for group differences in m-ratios in visual and tactile tasks (group effect BF_{10} = 0.42)

Metacognitive efficiency in tactile task in TD vs clinical scores



Discussion

- Metacognition is not impaired in TD
- No relationship between tactile metacognitive ability and clinical scores
- Metacognitive impairment cannot explain etiology of PUs

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[3] B. A. Belluscio, L. Jin, V. Watters, T. H. Lee, and M. Hallett, "Sensory sensitivity to external stimuli in Tourette syndrome patients: Sensory Sensitivity in TS," Mov. Disord., vol. 26, no. 14, pp. 2538–2543.
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