



# Believing or not in treatment side-effects: behavioral outcome and personality traits associated to a nocebo effect in motor performance

N Corsi<sup>1</sup> – M Emadi Andani<sup>1,2</sup> – M Tinazzi<sup>1</sup> - M Fiorio<sup>1</sup>

<sup>1</sup> Department of Neurological and Movement Sciences, University of Verona (Italia)

<sup>2</sup> Department of Biomedical Engineering, University of Isfahan (Iran)

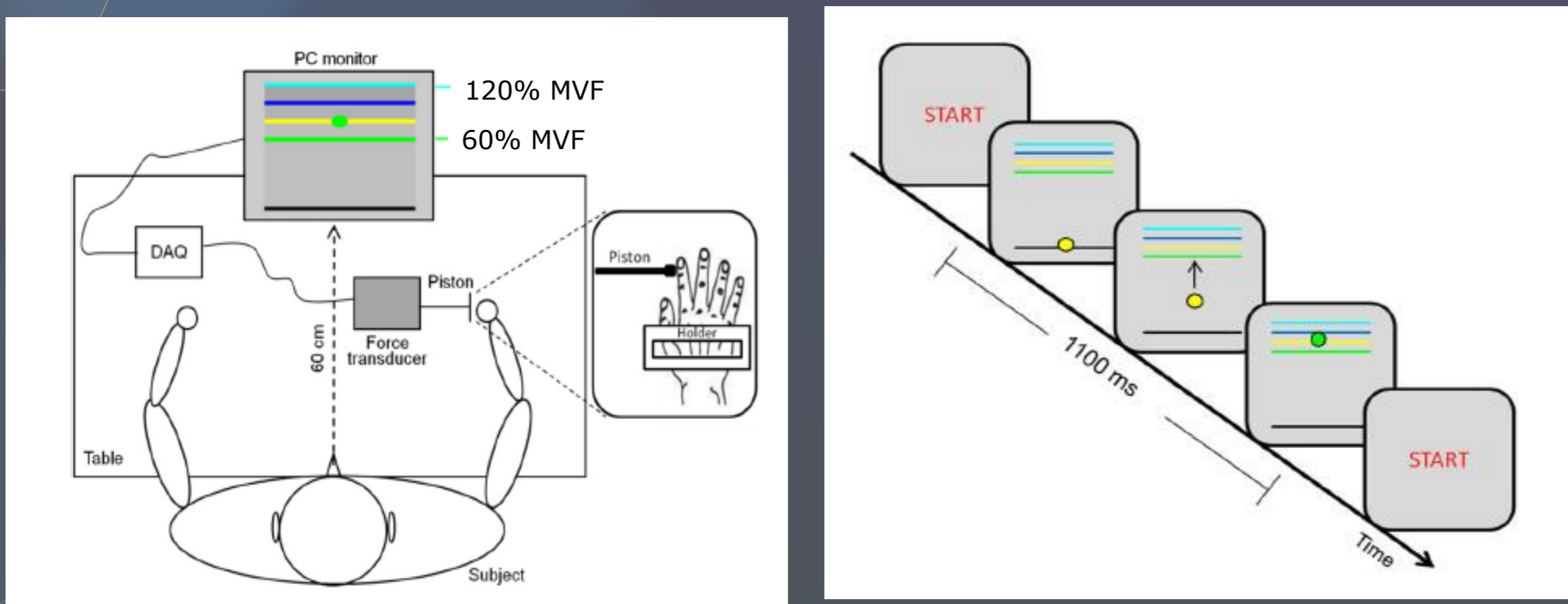
## Background

Believing in the detrimental effects of an inert treatment can lead to a negative outcome, a phenomenon known as nocebo effect. Experimental studies often deployed a conditioning procedure to expose participants to the real or fake detrimental effects of a treatment. However no study investigated whether differences could exist between participants in the way they persist believing in the treatment after the conditioning phase, that is when its effect is removed and the nocebo response arises.

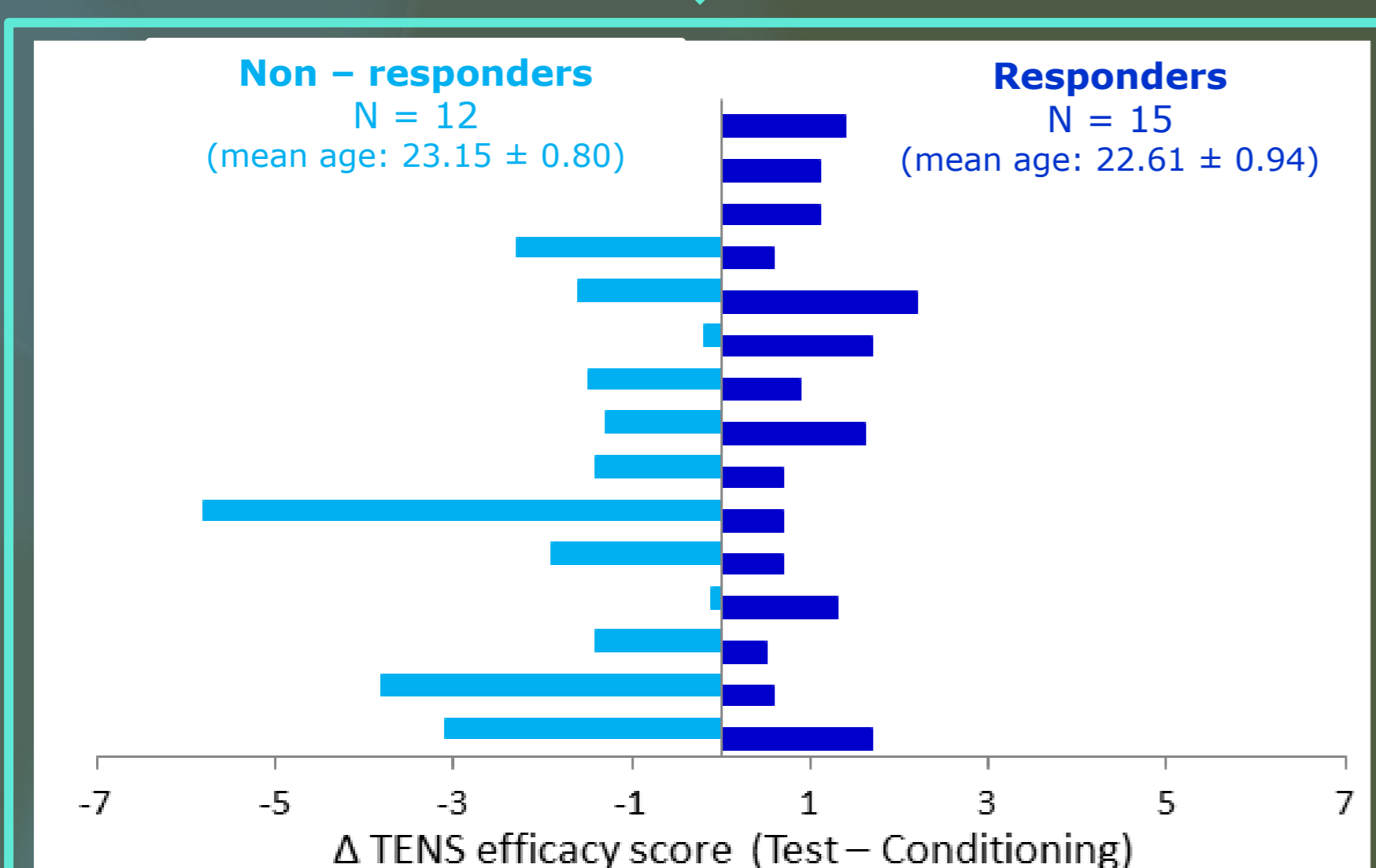
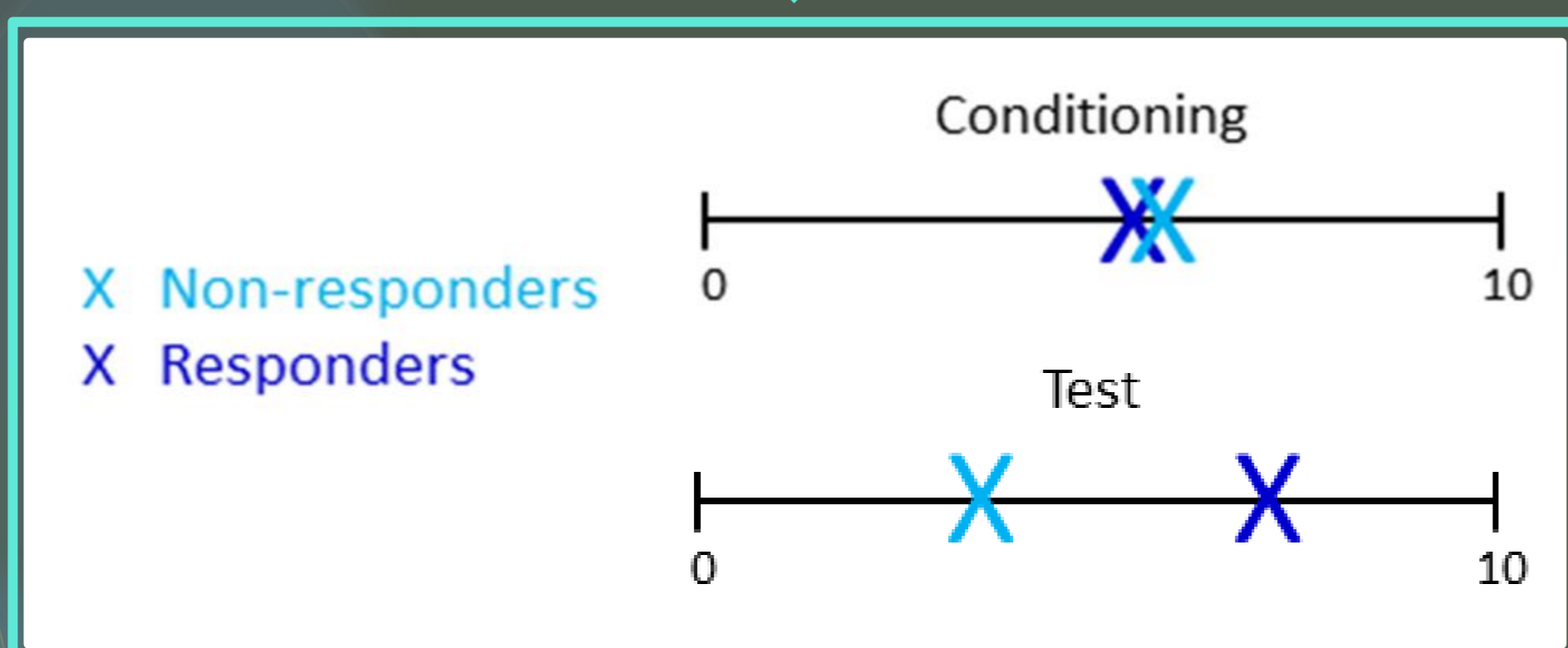
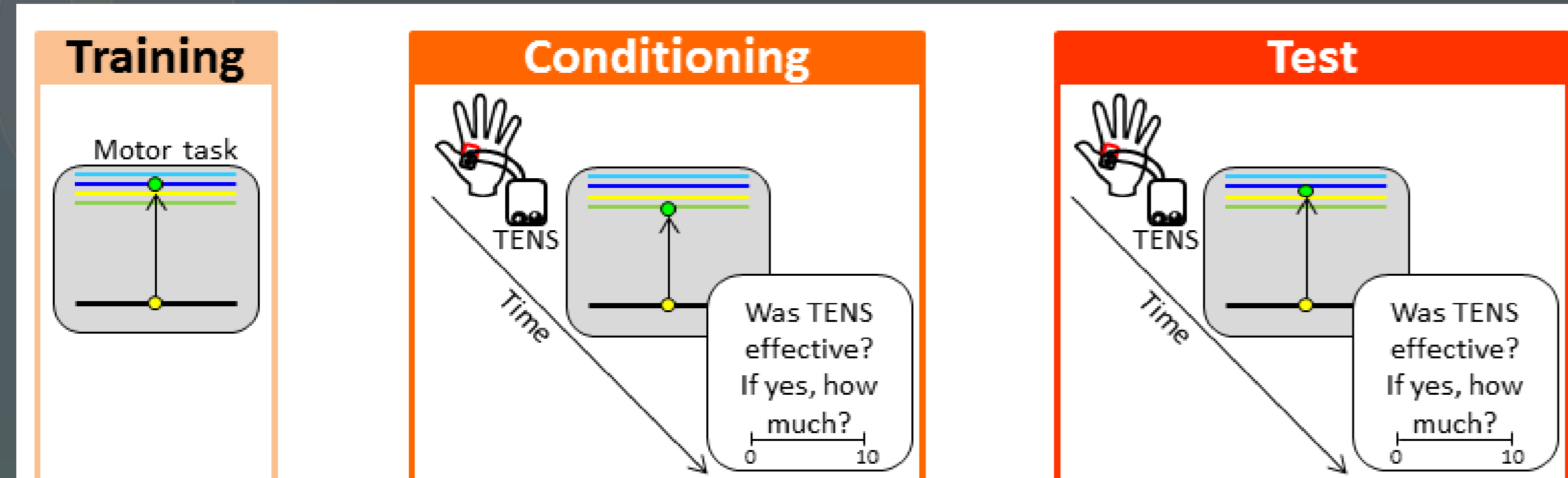
## Aim

In the present study we directly measured persistence of belief as a modulator of the nocebo response and related this cognitive function to dispositional factors.

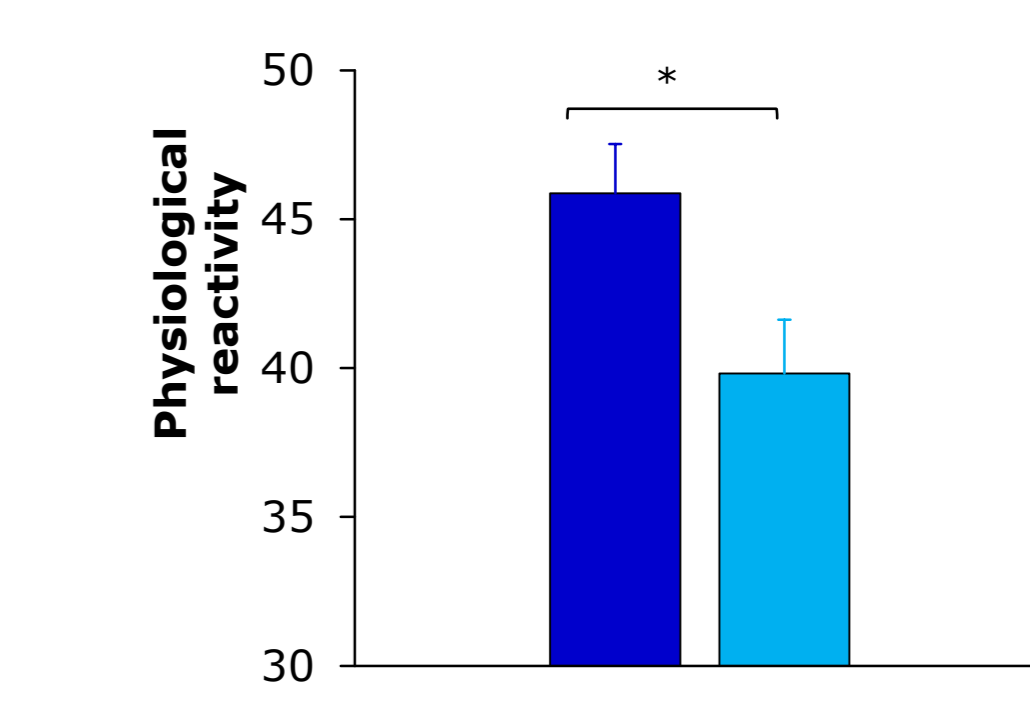
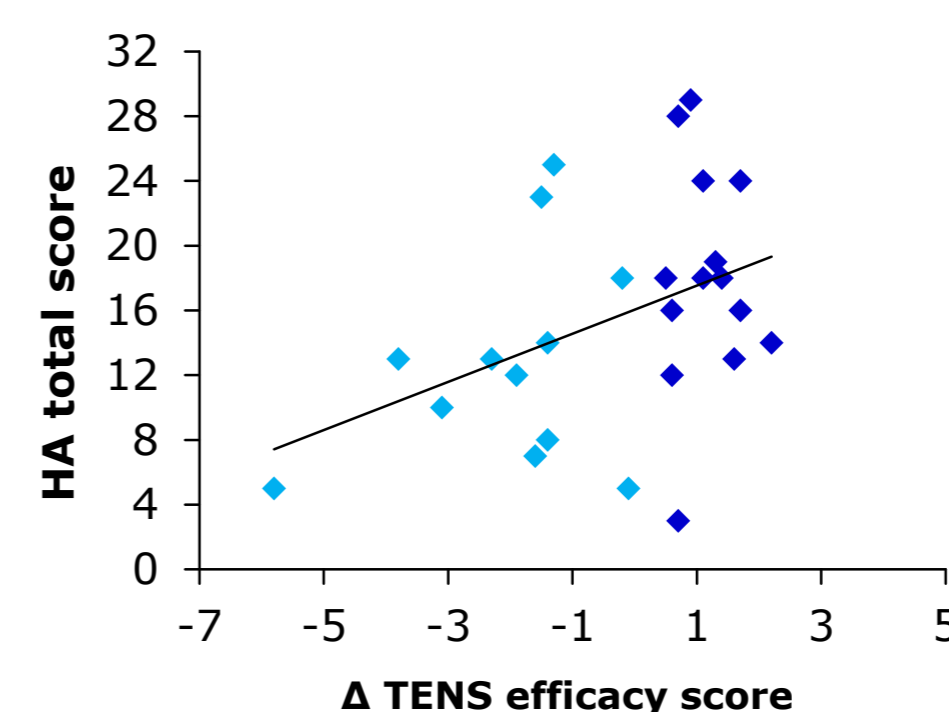
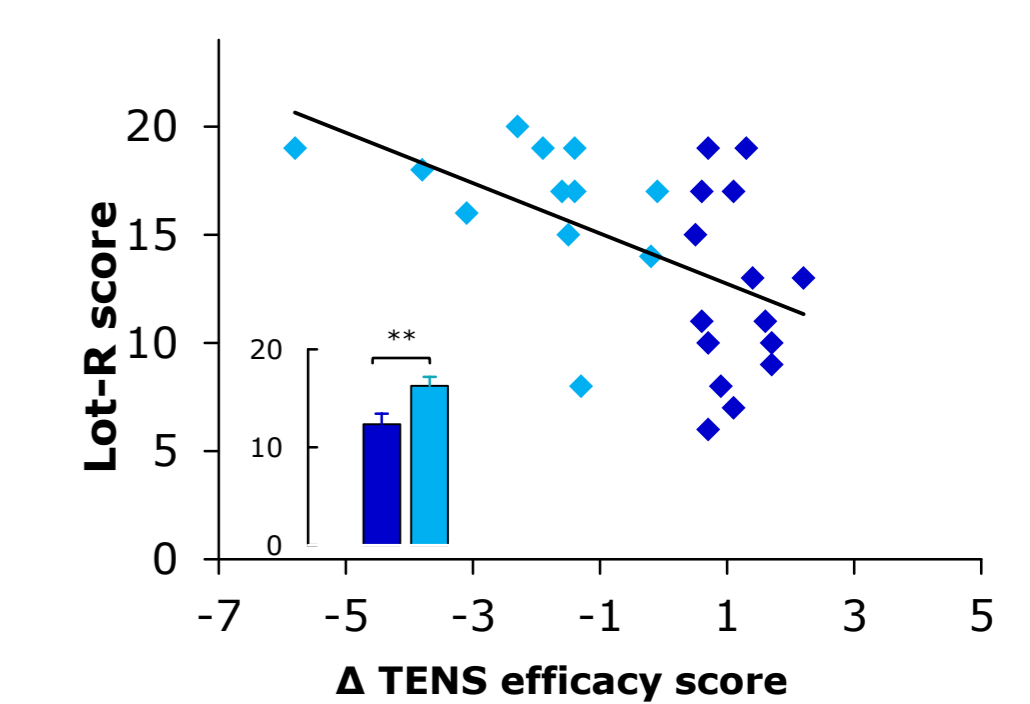
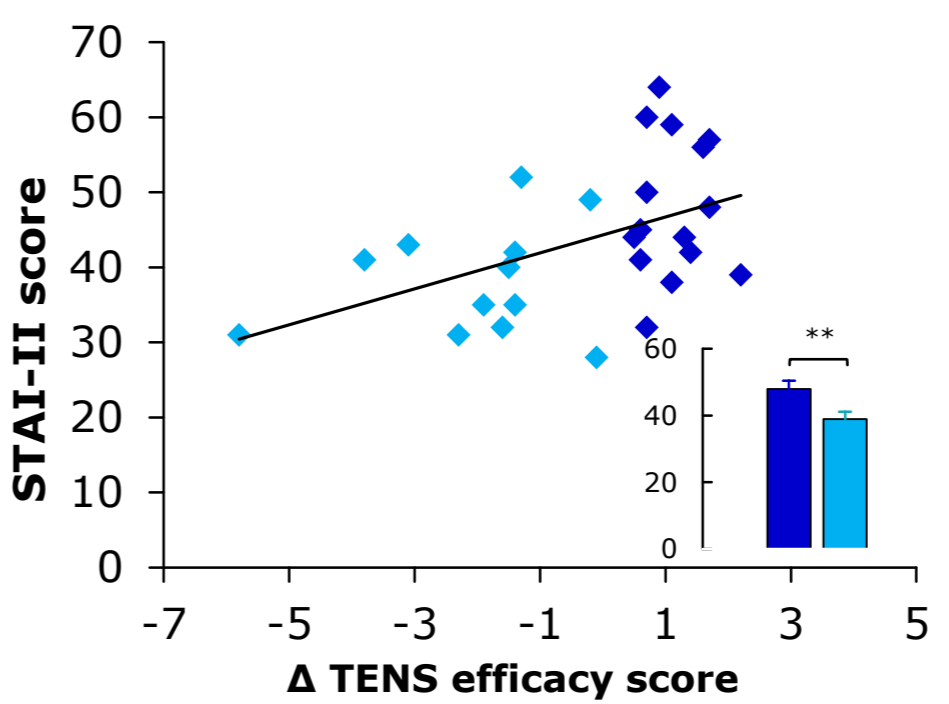
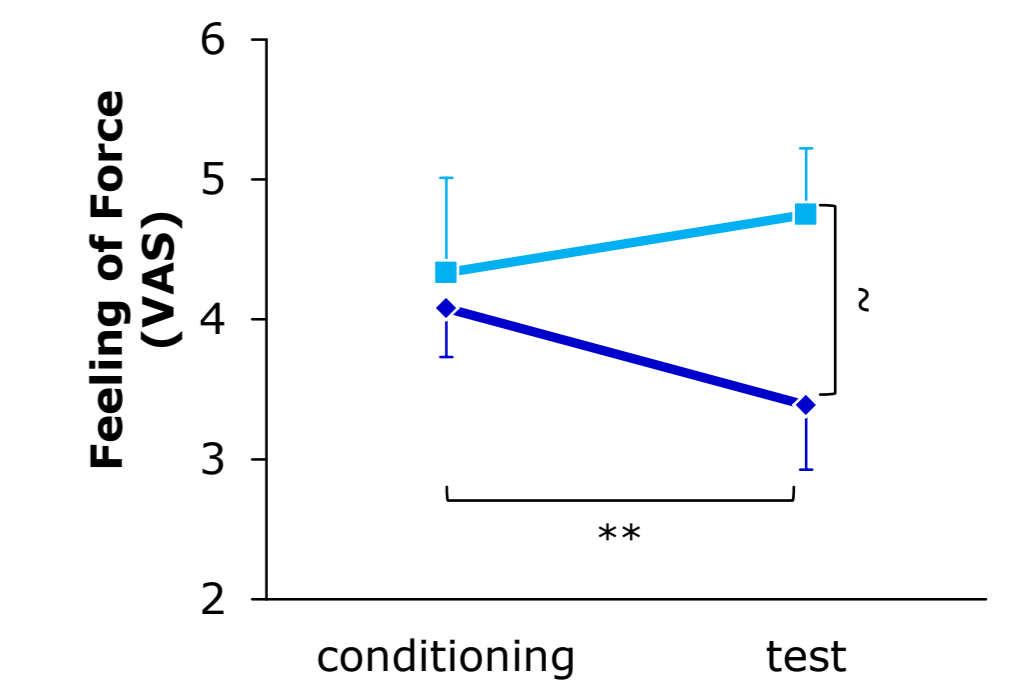
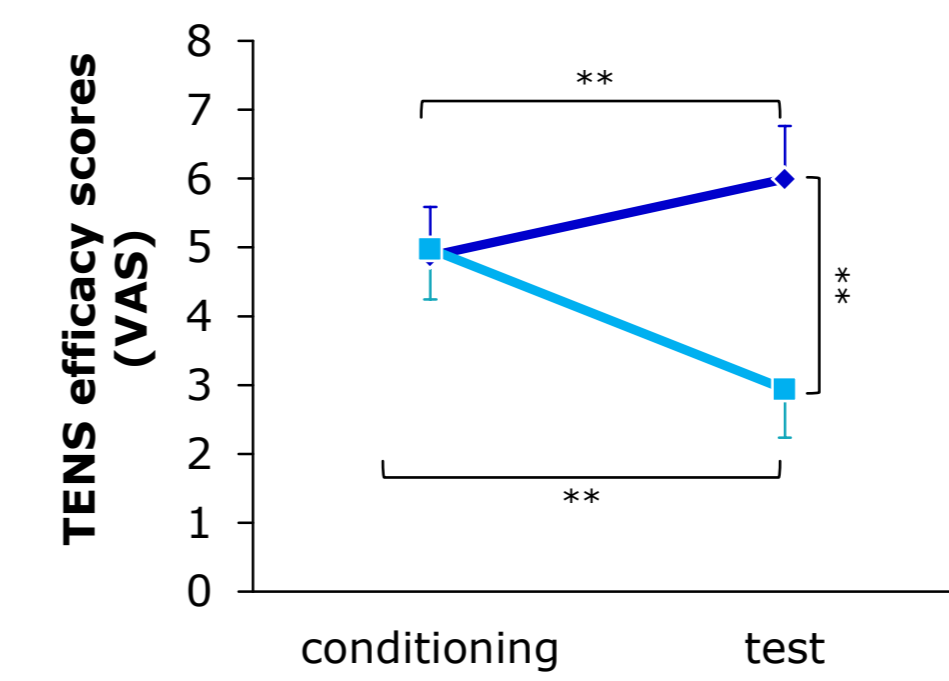
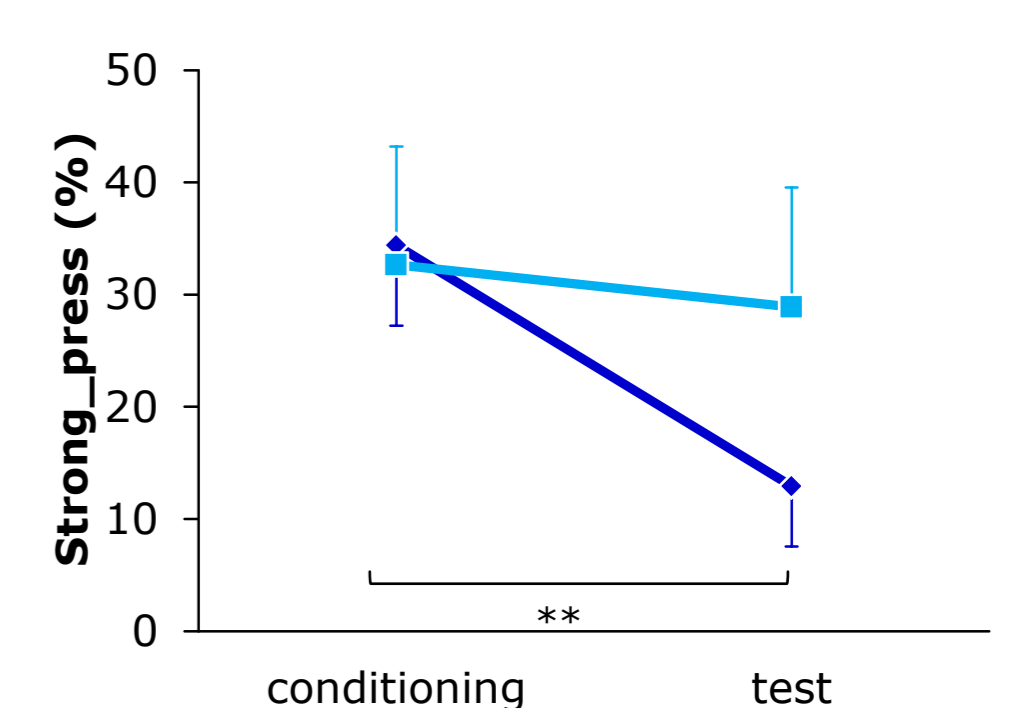
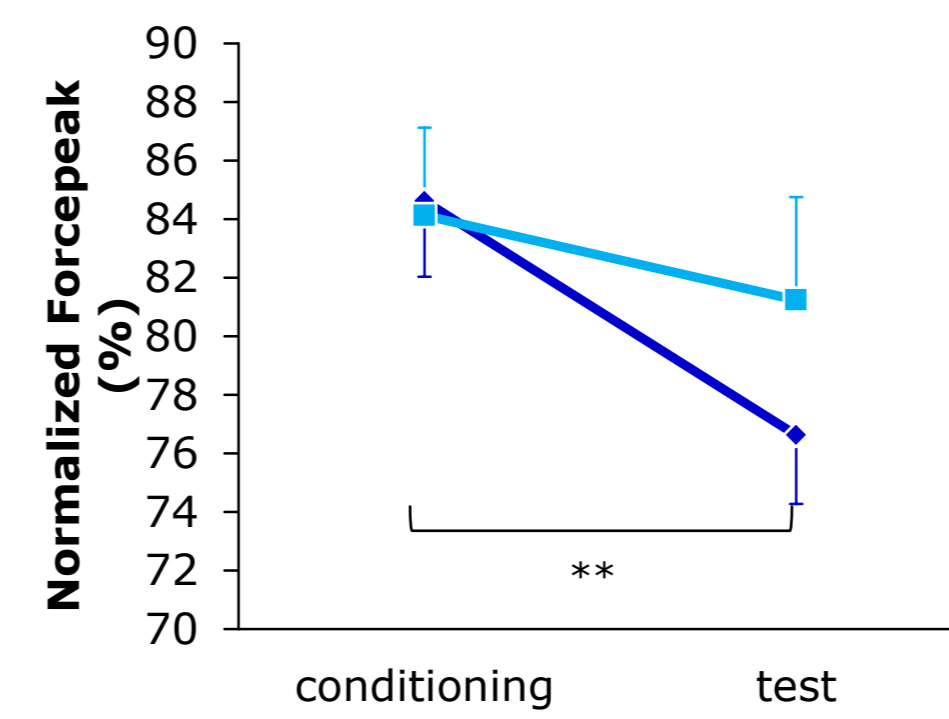
## Task



## Procedure



## Results



\*\* p < 0,010 \* p < 0,050

## Take home message

Individual differences in the magnitude of the nocebo response in motor performance are associated to the subjects' belief about the efficacy of the treatment after the conditioning phase. Moreover, different personality traits are related to the tendency to continue believing in the negative effects of the treatment. Based on these findings, we propose a model in which persistence of belief can be considered as a factor modulating the magnitude of the nocebo response.

## References

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Peciña M, Azhar H, Love TM, Lu T, Fredrickson BL, Stohler CS, Zubieta JK. *Neuropsychopharmacology*. 2013; 38(4): 639-646.

