Erratum

Erratum to the abstract, "The relationship between short interval intra-cortical inhibition and stopping ability"

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The Publisher would like to point out that an incorrect version of this abstract was published as part of the '3rd International Brain Stimulation Meeting Abstracts'.

The correct abstract appears below:

"Short interval intra-cortical inhibition (SICI), measured using paired-pulse transcranial magnetic stimulation (TMS) is believed to reflect the activity of GABAergic interneurons in the motor cortex. In this project, we investigated the relationship between SICI and the ability to inhibit a prepotent response. In our first study (n = 40), we compared MEPs evoked by single and paired-pulse TMS to measure SICI at rest. We investigated response inhibition using the stop signal task, which provides a measure of the latency of an individual's stopping process. We found that those with stronger stopping ability had stronger SICI, r = 0.63, p < .001. We conducted another study consisting of two experiments (n = 30 in each), where SICI was measured while participants completed the stop signal task. In both experiments, we found that those with stronger stopping ability had stronger SICI during both response inhibition and execution (during successful inhibition, the correlation between SICI and stopping ability was r = 0.81, p < .001). In another study (n = 42), we determined whether training subjects in the stop signal task led to improvements in stopping ability, and related changes in SICI. Relative to a control group who instead performed a choice reaction time task, the training group showed a small but non-significant improvement in stopping ability, but showed a significant increase in SICI (p = .014). Moreover, changes in stopping ability post-training correlated with changes in SICI across all participants (r = 0.59, p < .001). Our research shows a reliable relationship between SICI and the ability to inhibit a prepotent response which occurs across a variety of response requirements (at rest, during response inhibition and response execution). We also found that SICI and stopping ability appear to be temporally linked, such improved stopping ability across time relates to increased SICI."

The Publisher apologises for this error.