DO MEDITATORS HAVE HIGHER AWARENESS OF THEIR INTENTIONS TO ACT?

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Objectives: Intuitively, being aware of one’s inner processes to move should be crucial for the control of voluntary movements. However, research findings suggest that we are not always aware of the processes leading to movement execution. The present study investigated induced first-person access to inner processes of movement initiation and the underlying brain activities which contribute to the emergence of voluntary movement. Moreover, we investigated differences in task performance between mindfulness meditators and non-meditators while assuming that meditators are more experienced in attending to their inner processes.

Method: Two Libet-type tasks were performed; one in which participants were asked to press a button at a moment of their own decision, and the other one in which participants’ attention was directed towards their inner processes of decision making regarding the intended movement which lead them to press the button.

Results: Meditators revealed a consistent readiness potential (RP) between the two tasks with correlations between the subjective intention time to act and the slope of the early RP. However, non-meditators did not show this consistency. Instead, elicited introspection of inner processes of movement initiation changed early brain activity that is related to voluntary movement processes.

Conclusion: Our findings suggest that compared to non-meditators, meditators are more able to access the emergence of negative deflections of slow cortical potentials (SCP\textregistered s), which could have fundamental effects on initiating a voluntary movement with awareness.

Keywords: Meditation, Slow cortical potential, Libet experiment, Volition

Publications:
