Neural Plasticity

Hindawi

Special Issue on Boosting Action Observation and Motor Imagery to Promote Plasticity and Learning



In a continuum from fundamental to applied research, many significant scientific contributions in interdisciplinary research fields such as cognitive neuroscience, sport science, and neurorehabilitation provide convincing evidence that action observation and motor imagery might enhance the efficacy of motor training and/or motor recovery by stimulating the activity of the sensorimotor system.

Moreover, few preliminary studies in healthy adults proposed that the combination of action observation and motor imagery with central (e.g., transcranial magnetic stimulation, transcranial direct current stimulation) and peripheral (e.g., electrical stimulation) noninvasive stimulations might have a greater impact on brain plasticity and motor learning than when these techniques are applied alone.

This special issue aims to collect works based on action observation and motor imagery in combination with others noninvasive stimulation techniques and to discuss the efficacy of these approaches in promoting brain plasticity and motor learning.

We invite authors from a multidisciplinary audience to contribute original research as well as review articles that will let the readers know more about the cortical and behavioral effects induced by the association of action observation and motor imagery with central or peripheral stimulations in healthy subjects, athletes, and patients, with particular interest in applications devoted to the enhancement of the activity of the sensorimotor system, motor learning, and skill acquisition.

Potential topics include but are not limited to the following:

- Action observation/motor imagery combined with noninvasive brain stimulation techniques
- Action observation/motor imagery in virtual reality environments
- Action observation/motor imagery associated with somatosensory stimulations
- ▶ Action observation/motor imagery and brain-computer interface
- Neural mechanisms behind these approaches

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/np/baomi/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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