



UNIVERSITAS
GADJAH MADA

Effects of Unilateral Hand Contraction on Sustained Attention and Inhibitory Control

AURELIA VIRGITA C, Galang Lufityanto, S.Psi., M.Psi., Ph.D., Psikolog

Universitas Gadjah Mada, 2019 | Diunduh dari <http://etd.repository.ugm.ac.id/>

Unilateral hand contraction like squeezing a ball with the left hand might give the possibility of enhancing emotional state and cognitive performance. However, the effect of unilateral hand contraction towards particular cognitive performance, such as sustained attention and inhibitory control, remained unclear. This study observed the effect of performing unilateral hand contraction such as squeezing a rubber ball with the left hand as the non-dominant hand, in thirty-one right-handed participants. The electroencephalogram was used in this study to observe the brain cortical activity during hand contraction task. The result of this study showed that unilateral left-hand contraction promoted better performance in sustained attention and inhibitory control tasks due to decreased cortical activity. In summary, this study demonstrated that the unilateral hand movement could promote better performance in sustained attention and inhibitory control due to a widespread reduced cortical activity as a result of interhemispheric inhibition.

Keywords: unilateral hand movement, non-dominant hand, sustained attention, inhibitory control