

Everyday object affordance enhances automatic inhibitory control: an ERP study

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Abstract: High affordance stimuli are associated with an enhancement in the activation of the corresponding motor programs. Such over-activation of motor programs may imply a decrease in performances based on inhibitory control. However, recent data suggest that high affordance stimuli are associated with a widespread privileged neural activation that goes beyond motor representations. In this case, we can expect that high affordance objects will be associated to a higher level of flexibility in an oddball task with Go-NoGo procedure. By measuring ERPs, we observed that, in the case of high affordance objects, the amplitude of the N200 is decreased when the inhibition of the motor response is more difficult. Data suggests that high affordance objects facilitate inhibitory control, probably due to a higher activation of automatic attentional resources.