**Influence of eye dominance on hand reaction time and on interhemispheric transfer time.**

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The dominant eye is the one we unconsciously choose when we have to align a target in peripersonal space with a more distant point. Previous works showed that visual stimulation of this dominant eye (DE) leads to a faster and greater activation in the ipsilateral hemisphere (e.g. Shima et al. 2010; Neuroreport 21(12), 817-21). Here we tested whether this could have consequences in visuo-motor processes through a simple hand pointing task. Right and left handers with right or left DE participated in the study. We observed shorter reaction times (RT) for the hand controlateral to the DE compared to those for the ipsilateral hand only in left handers. In right handers, the left hand always showed the shorter RT, which is consistent with a right hemispheric specialization for spatial attention. We also compared, for each hand, RT to targets presented in each visual hemifield (contra/ipsi) to assess interhemispheric transfer time (IHTT). We found results in favor of an influence of the DE on the IHTT. We are currently pursuing the test of this influence of the dominant eye on IHTT with a simpler Poffenberger paradigm. Button press RT to lateralized target appearance are measured. EEG signals are also recorded to more precisely evaluate the IHTT (e.g. Rugg et al. 1984; Neuropsychologia 22(2), 215-25). Preliminary results of this new experimental series will also be presented.