task in which participants compared a vertical segment to an horizontal segment either left or right-sided. Based on recent evidence that normals underestimate lines symmetrically bisected as compared to lines asymmetrically bisected, the present study also aimed at testing whether this symmetry law was preserved in neglect. We tested 8 patients suffering from left unilateral neglect and 8 control participants. The results showed that controls and patients underestimated symmetric as compared to asymmetric bisections, and confirmed that neglect patients both underestimate left-sided stimuli and overestimate right-sided stimuli. Our results support the ideas that left unilateral neglect might reflect a deficit in attentional orienting to the left coupled with a disengagement deficit from right-sided stimuli, and that the symmetry law is driven by pre-attentive mechanisms.

10. *Anatomo-functional dissociation between bimanual symmetric and bimanual asymmetric movements: evidence from motor neglect*

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Previous neuroimaging studies have claimed a functional asymmetry between the two hemispheres during the execution of bimanual movements. The dominant hemisphere would play a predominant role in performing bimanual symmetric movements, whereas the non-dominant hemisphere would have its key role during the execution of bimanual asymmetric movements. In particular, a right fronto-parietal network it is hypothesized to be the candidate structure for the integration of sensory-motor information when directionally incompatible movements (i.e., asymmetric) are performed. Here we report the results of an experiment on two left-motor neglect patients (i.e., underutilization of the left arm in absence of motor or sensory deficits) with damages affecting those structures of the non-dominant hemisphere which mediate directional interferences that emerge during asymmetrical bimanual movements, which are strictly consistent with that model. Patients were administered a battery to assess the ability to execute bimanual movements (eight symmetric and eight asymmetric). Both of them resulted to be significantly impaired in executing asymmetric movements but unimpaired in executing symmetric movements. We argued that in these patients when the requested movement is symmetric the (healthy) dominant hemisphere would allow the movement, whereas when the movement is asymmetric the (lesioned) non dominant hemisphere would not be able to plan correct movements. These results strengthen and confirm previous evidence suggesting distinct neural networks underpinning bimanual symmetric and bimanual asymmetric movements.

11. *Awkward actions require an expert: the left human anterior intraparietal area (aIPS) shows greater fMRI activation for less-practiced actions.*

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