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Attention & Space #1

Threat from faces and bodies differentially modulates awareness of near and far space in hemispatial neglect

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Introduction: *The representation of the external left side of the space can be dissociated in hemispatial neglect between near and far space. Prior studies have shown that threatening stimuli may summon spatial attention, thereby restoring spatial representation of the otherwise neglected hemispace. However, there is no evidence about possible differences between fearful expressions as a function of the distance from the observer. Here we tested the biologically-inspired hypothesis that threatening faces are more effective than bodies in reducing near-space neglect, whereas bodily expressions are more valuable when displayed in the far space.*

Methods: *Twenty-four patients were divided in two subgroups, depending on neglect prevalence in the near or far space, and performed a line bisection and a visual search task either in the near (60 cm) or far (150 cm) space. Fearful and neutral facial or bodily expressions were used as lateral cues in the line bisection task and as target and distracters in the visual search task.*

Results: *In the near-space neglect subgroup, fearful faces reduced left-neglect more than bodies when both tasks were performed in the near space, whereas there was no difference between faces and bodies when the tasks were performed in the far space. The opposite pattern was present in the subgroup showing far-space neglect.*

Discussion: *Faces and bodies are both proficient in expressing fear and can call for attention automatically, thereby overcoming the loss of spatial awareness for the left space. However, faces seem especially informative when seen in the near space, whereas bodies are particularly effective in the far space.*

References: *Berti A et al. Neuroimage (2001) 14:98-102.*

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Keywords: Attention & Space; patients; group study; adults; cerebrovascular; behavioural, lesion mapping.

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