Walking reduces neglect

Tobias Loetscher¹; Celia Chen²; Sabrina Hoppe³; Andreas Bulling⁴; Sophie Wignall⁴; Owen Churches⁴; Nicole Thomas⁴; Andrew Lee⁵
¹Cognitive Neuroscience Laboratory, University of South Australia; ²Department of Ophthalmology, Flinders University; ³Max Planck Institute for Informatics, Saarbrucken, Germany; ⁴School of Psychology, Flinders University, Adelaide, Australia; ⁵Flinders Comprehensive Stroke Centre, Flinders Medical Centre, Australia.

Background
Spatial neglect is a common consequence of stroke. Neglect behaviour is typically exacerbated by increased task demands. It was thus anticipated that the addition of a secondary task requiring general attention (walking) would worsen performance on tests of spatial neglect. Here, however, we report a patient in whom neglect was considerably reduced when performing a visual search task while walking.

Conclusions
Walking reduced symptoms of spatial neglect in this patient. This finding was unexpected, as neglect symptoms are typically marked during dual-task conditions and in attentionally demanding real-world environments. Several explanations for this surprising finding are conceivable. For example, this patient may have suffered from left spatial neglect for near but not far space. It is also possible that walking increased the patient’s level of alertness/arousal which in turn ameliorated neglect. While the reason for our results remain elusive, they highlight the heterogeneity of neglect manifestations across different tasks.

References

Contact: Tobias.Loetscher@unisa.edu.au