



FOCUSING VISUAL WORKING MEMORY FOR ACTION, THROUGH ACTION, AND DURING ACTION

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Abstract


Visual working memory enables the brain to carry forward recent vision in service of anticipated action – and is often invoked by our own actions, such as when we turn and look elsewhere. Yet, in cognitive neuroscience, how we retain visual representations in working memory is often studied in relative isolation from action, and in passive observers. By departing from these conventions, I will share examples of our research – deploying EEG, eye-tracking, and Virtual Reality – that showcase the profound interdependencies between visual working memory and action. I will show how visual working memory and manual action planning work hand-in-hand to guide effective behaviour (“for action”), how oculomotor circuitry in the brain participates in focusing attention inside working memory (“through action”), and how studying visual working memory in moving participants (“during action”) opens new questions and insights at the intersections of attention, memory, and action.


Biosketch

He is co-chair of the Amsterdam Graduate Network for Cognitive Neuroscience, serves as PhD candidate advisor at the Faculty of Behavioural and Movement Sciences, and teaches the research-master course on Cognitive Electrophysiology at the Vrije Universiteit Amsterdam.



Hosted by: **Ruth de Diego**
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