

Department of Psychology

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Visual Attention and Numerical Ordering

This study investigates whether mathematical operations, specifically ordering, shift visual attention along the mental number line. We asked participants to watch ordering operations and then perform a magnitude comparison task. While we found no significant differences in response times across trials, there were some marginal trends. Subjects responded faster when judging more after an ascending ordering operation compared to judging more after a descending ordering operation. When judging less, the subjects responded faster after a descending ordering operation and slower after an ascending ordering operation.

We are currently piloting a version of this study to be run on children, with the addition of an eye tracker. We hope to incorporate the data of gaze position as a more direct measure of visual attention.