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Authors

Guba, Taylor Paige
Fyfe, Emily R.

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Attentional Momentum Effects on Addition Verification

Taylor Guba

University of Delaware, Newark, Delaware, United States

Emily Fyfe

Indiana University, Bloomington, Indiana, United States

Abstract

The direction of our attention can influence our performance on a variety of tasks. For example, reading from left to right relates to people associating small numbers on the left and large numbers on the right. In contrast, reading from right to left relates to people associating small numbers on the right and large numbers on the left. The current study tests if this type of “attentional momentum” can be induced by storytelling based on pictures and whether it affects college students’ reaction time on an arithmetic verification task with equations in a traditional (e.g., $2+2=4$) or non-traditional (e.g., $4=2+2$) direction. Our results show that students were faster at verifying simple traditional math problems after telling stories based on pictures arranged from left to right, but faster at verifying simple non-traditional math problems after telling stories based on pictures arranged from right to left.