

# Psychology team conducts research indicating that backward motion improves memory

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A team of Roehampton academics from the Department of Psychology have conducted research showing that backwards movement, whether real or imaginary, can improve short-term memories of eyewitness information, word recall and picture recall.

Dr. Aleksandar Aksentijevic, Dr. Elias Tsakanikos, Dr. Kaz Brandt, and Dr. Michael Thorpe published a paper in the journal *Cognition* that demonstrates a novel memory effect that could have important implications for tackling memory loss.

Six experiments were conducted to find out whether backward motion would promote recall in relation to forward motion or no-motion conditions. Participants from the study were shown a video of a staged crime, a word list, or a set of pictures.

Then, the [participants](#) walked forward or backwards, watched a forward- or backward-directed motion videos, or imagined walking forward or backwards. At the end of the

experiment, they answered questions about the video or recalled words or pictures.

The results revealed that backward motion (whether real, induced or imaginary) improved the recall of details of a video, words or pictures.

Dr. Aksentijevic said, "The [results](#) demonstrated for the first time that [motion](#)-induced past-directed [mental time travel](#) improved mnemonic performance for different types of information. We have named this a "mnemonic time-travel effect."

Dr. Tsakanikos added, "There is a huge potential for developing this effect as a digital intervention for memory problems in older adults, and we are currently in discussions with app developers."

**More information:** Aleksandar Aksentijevic et al. It takes me back: The mnemonic time-travel effect, *Cognition* (2018). [DOI: 10.1016/j.cognition.2018.10.007](#)

Provided by University of Roehampton

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