

Older adults experience 'destination amnesia' and over-confidence with false beliefs

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I'm sure I told you that already! Older adults are more likely to have destination memory failures - forgetting who they've shared or not shared information with, according to a new study led by Baycrest's Rotman Research Institute.

It's the kind of memory faux pas that can lead to awkward or embarrassing social situations and even miscommunication in the doctor's office. Ironically, after making these memory errors older adults remain highly confident in their false beliefs.

The study appears online, ahead of print publication, in the Online First Section of *Psychology and Aging*.

"What we've found is that older adults tend to experience more destination [amnesia](#) than younger adults," said lead investigator and cognitive scientist Dr. Nigel Gopie, who led the study with internationally-renowned experts in memory and attention, Drs. Fergus Craik and Lynn Hasher.

"Destination amnesia is characterized by falsely believing you've told someone something, such as believing you've told your daughter about needing a ride to an appointment, when you actually had told a neighbour."

Why are older adults more prone to destination memory failures? The ability to focus and pay attention declines with age, so older adults use

up most of their attentional resources on the telling of information and don't properly encode the context (ie. who they are speaking to) for later recall.

"Older adults are additionally highly confident, compared to younger adults, that they have never told people particular things when they actually had," added Dr. Gopie. "This over-confidence presumably causes older adults to repeat information to people."

A critical finding in the study is that destination memory is more vulnerable to age-related decline than source memory. Source memory is the ability to recall which person told you certain information.

In the research, 40 students from the University of Toronto (ages 18 - 30) and 40 healthy [older adults](#) from the community (ages 60 - 83) were divided into two experimental groups. The first experiment measured destination memory accuracy and confidence: requiring the individual to read out loud 50 interesting facts to 50 celebrities (whose faces appear on a computer screen), one at a time, and then remember which fact they told to which famous person. For example, "a dime has 118 ridges around it" and I told this fact to Oprah Winfrey.

The second experiment measured source memory accuracy and confidence: requiring the individual to remember which famous person told them a particular fact. For example, Tom Cruise told me that "the average person takes 12 minutes to fall asleep".

In the first experiment for destination memory accuracy, older adults' performance was 21% worse than their younger counterparts.

In the second experiment for source memory accuracy, older and younger adults performed about the same (60% for young, 50% for old) in recollecting which famous face told them a particular fact.

More information: The study follows an earlier one published last year in *Psychological Science* by Dr. Gopie (Baycrest's Rotman Research Institute) and Dr. Colin M. MacLeod (University of Waterloo). That one looked at disrupted destination memory in a single age group - university-aged students.

Provided by Baycrest Centre for Geriatric Care

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