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# Memory testing can age older adults in minutes

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By [Kathleen Raven](#)

NEW YORK (Reuters Health) - Older adults who feel younger than they really are might want to steer clear of memory tests, or risk feeling older, a new study suggests.

It's been known that doing poorly on memory tests influences what age an older adult may "feel," an effect called subjective aging. But a team of researchers have shown through a series of four experiments that the mere thought of a memory test can make men and women age 60 and older feel, well, older.

"Past research has referred to subjective age as a fixed number and we have shown that subjective age can change in five minutes," Lisa Geraci, associate professor of psychology at Texas A&M University in College Station, said.

Geraci is senior author of the study, which appeared in *Psychological Science*, and developed its concept.

The first experiment involved 22 men and women with an average biological age of 75 years recruited from the area around the university's campus. Before the test, the participants were shown a piece of paper with an unmarked line and told one millimeter equaled one year, then asked to tick off the age they felt along the line.

Immediately after that, they were given a list of 30 words to remember and took a five-minute memory test.

Before the test, the average subjective age hovered at 59 years old. Afterwards, participants reported feeling about 63.

The researchers then wondered: Do young people experience the same "aging" process? Do aging adults feel older after other types of tests, like vocabulary skills? And, what if a memory test is merely mentioned, but not actually administered?

Geraci and her team also wanted to eliminate any influence that being in a college campus environment - filled with young people - might have.

So the next three experiments were done online.

The researchers recruited 50 participants in the U.S., half were young adults in their 20s and half older adults in their 60s. The memory test experiment was repeated in the online format. Again, older adults felt about four years older after the test. The young people didn't feel any different about their age.

Fifty-seven older adults - average age of 60 - took part in a separate experiment done online. About half were assigned to take a memory test, and the rest could show off their vocabulary skills. Those who took the vocabulary test didn't feel aged at all. Their counterparts doing the memory recall felt about five years older.

These results, the researchers write, fit with a general negative stereotype in society that associates aging with memory loss.

"People don't think 'Oh gosh, I'm losing my vocabulary,'" Geraci told Reuters Health.

In the final experiment of the series, 30 adults in their late 50s and 60s were asked to give the age they felt at the start, and again after simply reading instructions for a memory test. Again, all participants reported feeling older.

The experiments support previous research showing that context can have powerful effects on how old a person feels.

For example, a trip to the local gym can be an "aging experience" for older adults, said Henry Roediger of Washington University in St. Louis, Missouri.

Geraci studied aging concepts in Roediger's lab in the early 2000s, but he was not involved in the current research.

"The self-image is changeable and malleable," Roediger, who offered his age of 66, said.

He pointed out that in all four studies, older adults always reported a younger subjective age than their numerical one - even after the memory tests.

"It's an interesting study," said Igor Grossmann, assistant professor of psychology at the University of Waterloo in Canada.

Grossmann regularly studies aging-related subjects, but has no connection with the current research.

He noted that the number of participants in the experiments was small, but seeing that different versions of the experiments produced the same subjective aging effect "is powerful."

"We are all living in a society in which we often put older adults in a perspective that they are not doing well," he said.

"In terms of care, it would depend on the goal of a doctor's office visit," Grossmann said, but "it would probably be good to ask first about general well-being, then maybe what they ate for breakfast, before finally asking about memory."

Using these techniques means the older person does not have to be reminded of his or her age right away.

"The bottom-line message would be to try and be cautious and mindful of stereotypes and how we talk about the performance of older adults," Grossmann said.

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