

Memory loss among the elderly is lower than what was originally thought

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Research conducted by Wilma Koutstaal (University of Minnesota) and Alaitz Aizpurua (UPV/EHU), concludes that the memory of older adults is not as deficient as has been thought until now. Elderly people remember fewer specific details than younger people and, in general, both groups retain concrete information about events experienced better than abstract information. The main difference is to be found in the



capacity to remember more distant facts: youngsters remember them better.

Alaitz Aizpurua, a lecturer at the UPV/EHU, maintains that "the highly widespread belief that memory deteriorates as one approaches old age is not completely true. Various pieces of neuro-psychological research and other studies show that cognitive loss starts at the age of 20 but that we hardly notice it because we have sufficient capacity to handle the needs of everyday life. This loss is more perceptible between 45 and 49 and, in general, after the age of 75, approximately."

The deterioration does not tend to be either uniform or general: "It takes place in certain memory types more than in others. In old age, deterioration appears in episodic memory but not in semantic memory. This type of memory (semantic) and procedural memory are maintained (in some cases they even improve) whereas episodic memory in which detailed memories are retained reduced," said Aizpurua.

"Procedural memory is the one to do with 'skills', the one we need to 'do things' (to drive, for example). In general, it is maintained during old age. Semantic memory, on the other hand, is related to language, to the meaning of concepts and to repetitive facts. Whenever we go to a restaurant, for example, we remember the sequence of steps we have to follow: wait until the waiter attends to us and tell him/how many diners there will be; whether we have booked a table, and if so, in whose name; order the dishes, etc. Finally, episodic memory preserves the facts (episodes) of the past in our personal life, and it is more specific in terms of time and space:we can remember, for example, the last time we went to a restaurant, who we sat next to, what we ate, etc.," explained the author of the research.

Autobiographical memory —the object of the research by Aizpurua and Kootstaal— forms part of <u>episodic memory</u> and is essential when it



comes to planning or predicting our future and well as for our emotional well-being. In the experiment conducted for the research, the participants were asked to recall three facts from their personal lives: something that happened the previous year (but not in the previous month), something that happened during the previous month, (but not in the previous week) and something that happened the previous week (but not on the previous day).

Rules of the game identical for older and younger adults

The authors of the research detected certain gaps in the <u>autobiographical</u> <u>memory</u> measurements that have been conducted until now. "Older and younger people were asked about events that had occurred at a specific moment (the same for both groups), but for the <u>older adults</u> the time interval that had elapsed since the event was much longer. If a young adult is asked about an event in his/her childhood, he/she will have to go back 10 to 15 years; by contrast, an older adult has to go back 40 years or more," stressed Aizpurua.

So these researchers changed the interview pattern that had been used for studies of this type, and asked older adults and younger ones the same questions, and they drew the following conclusion: "An individual, both an adult and a young person, has the capacity to remember information relating to facts in his/her private life in detail. The main difference between older adults and younger adults is as follows: the younger ones remember more episodic details. Our research shows, however, that this difference only occurred in one of the three sections referred to, in the one involving memories of the previous year; in other words, in that of the oldest recollections. No appreciable differences were found in the recollections of the previous month and the previous week, and the older adults were just as capable as the younger adults in



providing episodic details relating to the facts," asserted Aizpurua.

More information: "A matter of focus: Detailed memory in the intentional autobiographical recall of older and younger adults." *Conscious Cogn.* 2015 May;33:145-55. <u>DOI:</u> 10.1016/j.concog.2014.12.006

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