

Does aging affect decision making?

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Aging is associated with significant decline in cognitive functions. But does this translate into poorer decision making? Psychologists from the University of Basel and the Max Planck Institute for Human Development report that in simple decision situations, older adults perform just as well as younger adults. However, according to their study published in the academic journal *Cognition*, aging may affect decision performance in more complex decision situations.

Important decisions in politics and economics are often made by older people: According to Forbes magazine, the average age of the world's most powerful people in 2013 was 61 years. As populations across the globe age, the selection of older individuals into such powerful roles may even be further intensified.

Aging is associated with a significant decline in so-called fluid cognitive abilities, for example, the ability to store information in memory or to quickly solve cognitive problems. Fluid cognitive abilities may play a role particularly in "decisions from experience", that is, when the potential consequences of available options is not conveniently summarized but has to be acquired through information search (exploration) and learning. Thus, how do older in comparison to younger adults fare when making decisions from experience?

Choosing between lotteries

Psychologists from the University of Basel and the Max Planck Institute for Human Development in Berlin conducted three studies in which

younger (average age: 24 years) and [older adults](#) (71 years) repeatedly made decisions from experience- either on a computer in the lab (study 1) or on an iPad at home (study 2).

In each lottery, participants had the choice between two options, which were presented as two unlabeled boxes on the screen. Before making a consequential decision, participants could sample the possible gains and losses of each option by clicking onto the two boxes, as often as they liked. They were thus able to learn which option was better, promising the higher gain or the smaller loss in the long run. Surprisingly, older adults put the same amount of effort into exploring the options and chose the advantageous options as often as [younger adults](#).

"Simple but successful" learning strategies

The psychologists then analyzed participants' learning processes using computer simulations and found a possible explanation for their results: "Younger as well as older adults are using relatively simple but successful learning strategies", explains first-author Dr. Renato Frey. These strategies remain relatively unaffected by reduced fluid [cognitive abilities](#). Only in a third study where participants no longer had to choose between two but four or up to eight options, did the researchers observe a decline in decision-making performance by older adults. Overall, the results suggest that simple strategies can be useful to aging decision makers even though such strategies may not fully compensate for age-related cognitive decline in very complex decision situations.

More information: Frey, R., Mata, R., & Hertwig, R. (2015). The role of cognitive abilities in decisions from experience: Age differences emerge as a function of choice set size. *Cognition*, 142, 60-80. [DOI: 10.1016/j.cognition.2015.05.004](https://doi.org/10.1016/j.cognition.2015.05.004)

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