

## 2 Key Mental Abilities That Improve With Age (M)



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Two key brain functions actually improve with age, giving the lie to the idea that we are mentally on a downward trajectory.

Mental abilities called *orienting* and *executive inhibition* get better with age, a new study has found.

Both functions are vital for the operation of memory, self-control, math, language and reading.

These are not the only psychological benefits people see with greater age.

As people age their emotions become more stable.

Older people also find it easier to resist temptations as they become less impulsive.

Along with decreased neuroticism, other [personality traits that change with age](#) are:

- an increase in conscientiousness,
- and becoming more agreeable.

Professor Michael T. Ullman, study co-author, said:

“These results are amazing, and have important consequences for how we should view aging

People have widely assumed that attention and executive functions decline with age, despite intriguing hints from some smaller-scale studies that raised questions about these assumptions.

But the results from our large study indicate that critical elements of these abilities actually improve during aging, likely because we simply practice these skills throughout our life.

This is all the more important because of the rapidly aging population, both in the US and around the world.”

The study included 702 people aged over 58 who were given tests of three vital aspects of cognition:

- Alerting: state of being ready to respond.
- Orienting: moving attention to an important place.
- Executive inhibition: being able to avoid distracting or conflicting information.

Dr João Veríssimo, the study's first author, explained:

“We use all three processes constantly.

For example, when you are driving a car, *alerting* is your increased preparedness when you approach an intersection.

*Orienting* occurs when you shift your attention to an unexpected movement, such as a pedestrian.

And *executive* function allows you to inhibit distractions such as birds or billboards so you can stay focused on driving.”

The results showed that only alerting got worse with age, while orienting and executive inhibition improved.

While people's brains may be declining with age, to a certain extent a lifetime of practice can make up for these losses.

However, even practice cannot improve some functions, such as alerting.

Dr Veríssimo said:

"Because of the relatively large number of participants, and because we ruled out numerous alternative explanations, the findings should be reliable and so may apply quite broadly.

Because orienting and inhibitory skills underlie numerous behaviors, the results have wide-ranging implications."