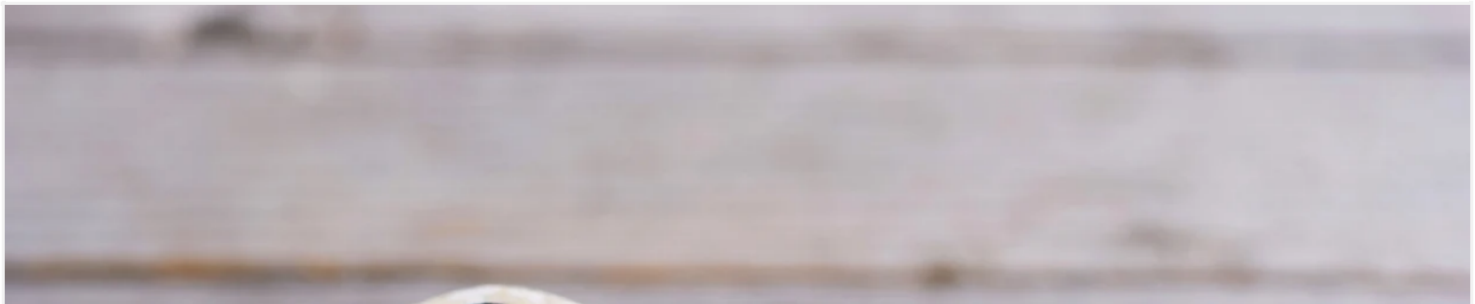
Your ability to make random choices may peak at age 25

It all comes back to the brain.

By Rebecca Ruiz on April 13, 2017



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In the animal kingdom, acting randomly can be the key to avoiding a grisly fate. After all, if you're a field mouse and a hawk can't predict your next move, your chances for survival are much higher.

For human beings, the ability to behave randomly isn't a matter of life or death, but it is an important cognitive skill that reflects our capacity for creativity and problem solving.

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That's the good news.

The bad news is that, according to a new study published in *PLOS Computational Biology*, our aptitude for making random choices peaks at 25, slowly diminishes until we turn 60, and plummets from that point on.

That conclusion, which isn't too surprising given what we know about the aging process, was hard to definitively produce before. In the past, researchers used blunt statistical tools to determine people's ability to generate random sequences, like a string of numbers.

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But the scientists behind this latest study ran trillions of programs on a supercomputer to analyze the algorithms behind the "random" choices people made while completing five online tasks.

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"We are using a much more powerful approach," says Hector Zenil, a co-author of the study and an assistant professor of at the Karolinska Institutet in Stockholm, Sweden.

The exercises challenged the 3,429 participants to either make something look random or predict what would happen next in a random event. For example, in one task, people had to create a series of 12 head-or-tails coin flips that would appear random to someone else. Another task required generating, as randomly as possible, a string of 10 numbers between one and six.

Then the researchers evaluated all the participants' decisions according to their "algorithmic complexity," or basically, whether or not the patterns each person generated were easier or harder to summarize mathematically.

Original image has been replaced. Credit: Mashable

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They took into account factors like gender, language, and education, but age was the only thing that changed how randomly people behaved. That ability, they found, peaked at age 25.

Zenil, who also heads the Algorithmic Nature Group, says that creating randomness is one measure of cognitive ability. The technique he and his fellow researchers used, he adds, could have implications for studying neurodegenerative diseases like Parkinson's and Alzheimer's.

The current research didn't focus on the connection between randomness and problem-solving skills or creativity, but Zenil thinks a complex relationship links those abilities. More flexible and out-of-the-box thinking could arguably improve one's capacity for finding new solutions, for example.

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In the meantime, anyone can give the tasks in Zenil's study a shot. They can be completed online in about five minutes as part of the ongoing study.

Just don't overthink your own attempt at randomness now that you know your age may make all the difference.

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Rebecca Ruiz

Senior Reporter

Rebecca Ruiz is a Senior Reporter at Mashable. She frequently covers mental health, digital culture, and technology. Her areas of expertise include suicide prevention, screen use and mental health, parenting, youth well-being, and meditation and mindfulness. Rebecca's experience prior to Mashable includes working as a staff writer, reporter, and editor at NBC News

Digital and as a staff writer at Forbes. Rebecca has a B.A. from Sarah Lawrence College and a masters degree from U.C. Berkeley's Graduate School of Journalism.

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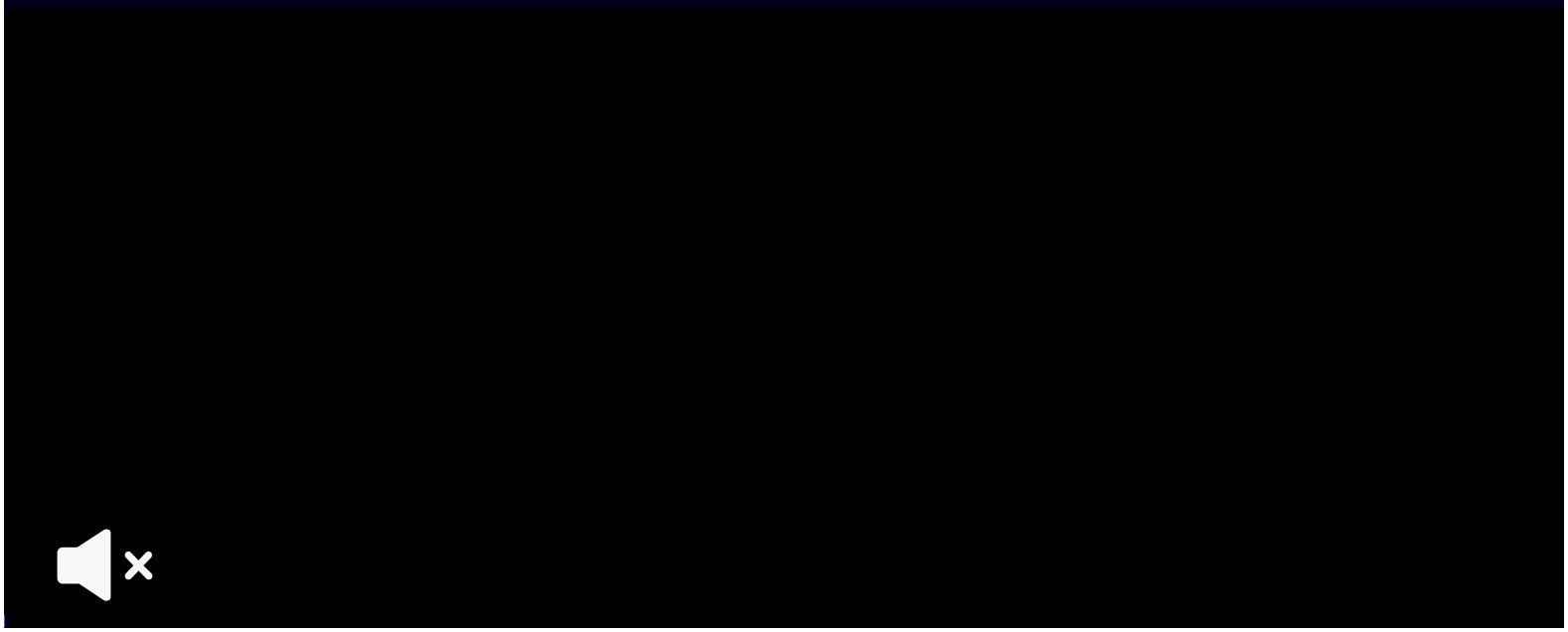

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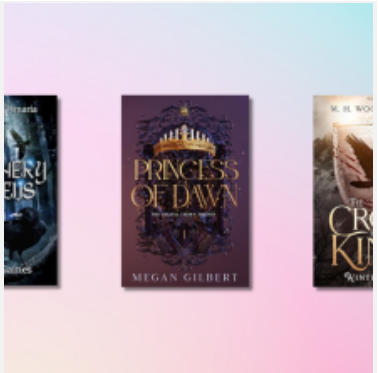

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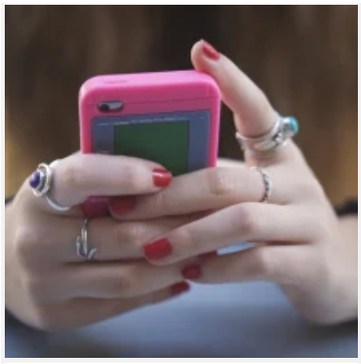

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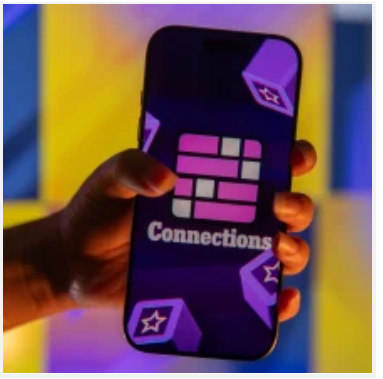

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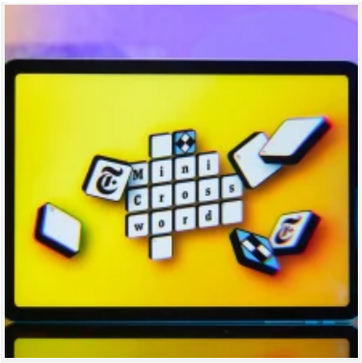

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