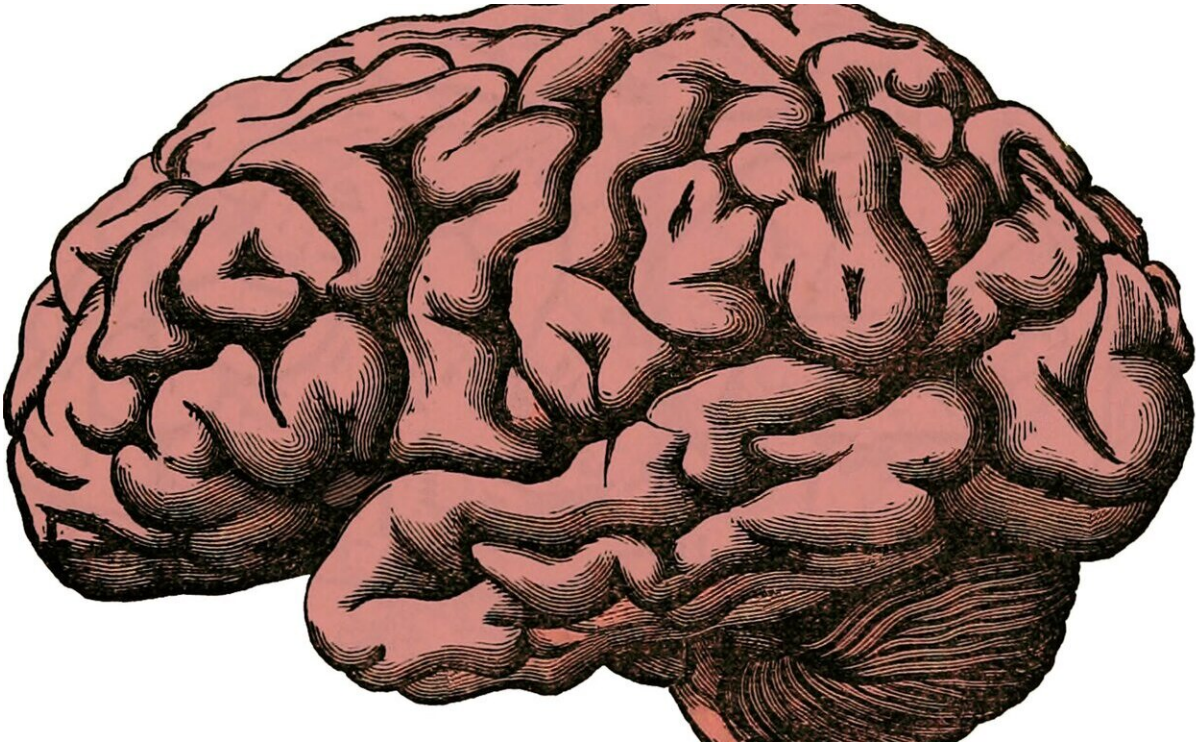


The bilingual brain may be better at ignoring irrelevant information

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People who speak two languages may be better at shifting their attention from one thing to another compared to those who speak one, according to a study [published](#) this month in the journal *Bilingualism: Language and Cognition*.

The study examined differences between bilingual and monolingual individuals when it comes to attentional control and ignoring information that isn't important at the time, said its authors Grace deMeurisse, a University of Florida Ph.D. candidate studying linguistics, and Edith Kaan, a UF professor in the department of linguistics.

"Our results showed that [bilinguals](#) seem to be more efficient at ignoring information that's irrelevant, rather than suppressing—or inhibiting information," deMeurisse said. "One explanation for this is that bilinguals are constantly switching between two languages and need to shift their attention away from the language not in use."

For example, if an English- and Spanish-speaking person is having a conversation in Spanish, both languages are active, but English is put on hold but always ready to be deployed as needed.

Numerous studies have examined the distinctions between the two groups in broad cognitive mechanisms, which are [mental processes](#) that our brains use, like memory, attention, problem-solving, and decision-making, deMeurisse said.

"The effects of speaking two languages on a person's cognitive control is often debated," she said. "Some of the literature says these differences aren't so pronounced, but that could be because of the tasks linguists use to research differences between bilinguals and monolinguals."

DeMeurisse and Kaan set out to see if differences between the two groups would surface and used a task that had not been applied in psycholinguistics before called the Partial Repetition Cost task to measure the participants' abilities to deal with incoming information and control their attention.

"We found that bilinguals seem to be better at ignoring information

that's irrelevant," Kaan said.

The two groups of subjects included functional monolinguals and bilinguals. Functional monolinguals were defined as those who had two years or less of a foreign language experience in a classroom and use only the first language that they learned as a child.

Bilinguals were categorized as people who had learned both their first and [second language](#) before the ages of 9 to 12 and were still using both languages.

Kaan explained that an individual's cognitive traits continuously adapt to external factors, and as humans, we have very few traits that remain fixed throughout our lifetime.

"Our cognition is continuously adapting to the situation, so in this case it's adapting to being bilingual," she said. "It doesn't mean it won't change, so if you stop using the second language, your cognition may change as well."

The UF study demonstrates a need to build more consistencies among the varied experiments used to understand differences between those who speak one language and those who speak more than one.

"In the study of bilingualism and cognition, we are redefining the way we talk about differences between bilinguals and monolinguals and searching for more factors to consider and more methods to conduct that research," deMeurisse said.

The researchers were also clear to point out that their study was not intended to show that people who speak two or more languages have an advantage over those who speak one.

"We are not looking for advantages or disadvantages," deMeurisse said. "However, regardless of cognitive differences, learning a second language is always going to be something that can benefit you, whether those benefits are cognitive, social, or environmental. It will never be a negative to be exposed to a second [language](#)."

More information: Grace deMeurisse et al, Bilingual attentional control: Evidence from the Partial Repetition Cost paradigm, *Bilingualism: Language and Cognition* (2023). [DOI: 10.1017/S1366728923000731](#)

Provided by University of Florida

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