

Study: Bilingualism does not make you 'smarter'

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Despite numerous social, employment, and lifestyle benefits, speaking more than one language does not improve your general mental ability, according to a new study by Western's Brain and Mind Institute.

More than 11,000 participants from around the world completed 12

online cognitive tests that taxed reasoning, memory, planning, visuospatial skills and attention. Each person also reported whether they spoke one language or more, and which languages they spoke. The results showed no evidence that the benefits of being bilingual transfer to other mental skills.

The study, *Bilingualism Affords No General Cognitive Advantages: A Population Study of Executive Function in 11,000 People*, was published Monday in the journal *Psychological Science*.

"From our 11,000 participants, we generated two very carefully matched groups—one monolingual and one bilingual. Surprisingly, there were no consistent differences between them on any of our cognitive tests," explains Emily Nichols, a Faculty of Education postdoctoral scholar in the Developing Brain Lab and lead author of the study.

Nichols says many previous research studies have suggested that the 'bilingual advantage' is real, although they tend to use [small samples](#) and focus on very specific tests that might not generalize.

"We explored many different ways of comparing the two groups across a broad range of cognitive tasks. Our prediction was that if bilingualism provided a general cognitive advantage, then we would be able to see it—and we didn't," Nichols said.

The [cognitive tests](#) developed by Western neuroscientist Adrian Owen and his team have been used in hundreds of scientific studies to identify deficits and differences between various clinical and healthy populations.

"One question in this field is whether the tests used are sensitive enough to detect small differences between different groups," said Owen, a Schulich School of Medicine & Dentistry professor and senior author on

the study. "In this case, our previous studies reassured us that we would be able to detect a difference between monolinguals and bilinguals and there just wasn't one."

The researchers say this study should not be considered 'good' news for monolinguals and 'bad' news for bilinguals, who make up almost 20 percent of the Canadian population.

"Despite there being no cognitive advantage, the broader social, employment, and lifestyle benefits that are available to speakers of a second [language](#) are clearly numerous," Nichols said.

More information: Emily S. Nichols et al. Bilingualism Affords No General Cognitive Advantages: A Population Study of Executive Function in 11,000 People, *Psychological Science* (2020). [DOI: 10.1177/0956797620903113](#)

Provided by University of Western Ontario

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