

Bilingualism no big deal for brain, researcher finds

May 31 2011

How do people who speak more than one language keep from mixing them up? How do they find the right word in the right language when being fluent in just one language means knowing about 30,000 words?

That's what science has wondered about for decades, offering complicated theories on how the [brain](#) processes more than one [language](#) and sometimes theorizing that [bilingualism](#) degrades [cognitive performance](#).

But University of Kansas psycholinguist Mike Vitevitch thinks that complicated explanations of how the brain processes two or more languages overlook a straightforward and simple explanation.

"The inherent characteristics of the [words](#) — how they sound — provide enough information to distinguish which language a word belongs to," he said. "You don't need to do anything else."

And in an analysis of English and Spanish, published in the April 7 online edition of *Bilingualism: Language and Cognition*, Vitevitch found few words that sounded similar in the two languages.

Most theories of how bilingual speakers find a word in memory assume that each word is "labeled" with information about which language it belongs to, Vitevitch said.

But he disagrees. "Given how different the words in one language sound

to the words in the other language, it seems like a lot of extra and unnecessary mental work to add a label to each word to identify it as being from one language or the other. "

Here's an analogy. Imagine you have a bunch of apples and oranges in your fridge. The apples represent one language you know, the oranges represent another language you know and the fridge is that part of memory known as the lexicon, which contains your knowledge about language. To find an apple you just look for the round red thing in the fridge and to find an orange you just look for the round orange thing in the fridge. Once in a while you might grab an unripe, greenish orange mistaking it for a granny smith apple. Such instances of language "mixing" do happen on occasion, but they are pretty rare and are easily corrected, said Vitevitch.

"This process of looking for a specific piece of fruit is pretty efficient as it is —labeling each apple as an apple and each orange as an orange with a magic marker seems redundant and unnecessary."

Given how words in one language tend to sound different from words in another language, parents who speak different languages should not worry that their children will be confused or somehow harmed by learning two languages, said Vitevitch.

"Most people in most countries in the world speak more than one language," said Vitevitch. "If the U.S. wants to successfully compete in a global economy we need people who can communicate with potential investors and consumers in more than one language."

Provided by University of Kansas

Citation: Bilingualism no big deal for brain, researcher finds (2011, May 31) retrieved 5 May

2024 from <https://medicalxpress.com/news/2011-05-bilingualism-big-brain.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.