Bilingual Brains Switch Modes: Czech Speakers Process English Like Natives, Even When It Means Making 'Native' Mistakes

PRAGUE, CZECH REPUBLIC, November 28, 2025 /EINPresswire.com/ --
A large-scale study published in Bilingualism: Language and Cognition reveals remarkable flexibility in how the bilingual brain processes grammar. Researchers from the Faculty of Arts at Charles University and Masaryk University discovered that highly proficient non-native speakers do not simply map their native language processing strategies onto a second language. Instead, they completely switch processing modes—acquiring not just the fluency of native speakers, but their cognitive vulnerabilities as well.

Brian J. Matis - 2010

The study focused on a phenomenon known as "agreement attraction," a processing glitch common in English. It occurs when the brain momentarily accepts a verb that agrees with a nearby noun rather than the actual subject. For example, in the sentence "The blanket on the babies were small," a reader's brain might not immediately flag were as incorrect. This is because the plural noun babies "attracts" the verb, creating an illusion of grammatical correctness, even though the true subject (blanket) is singular.

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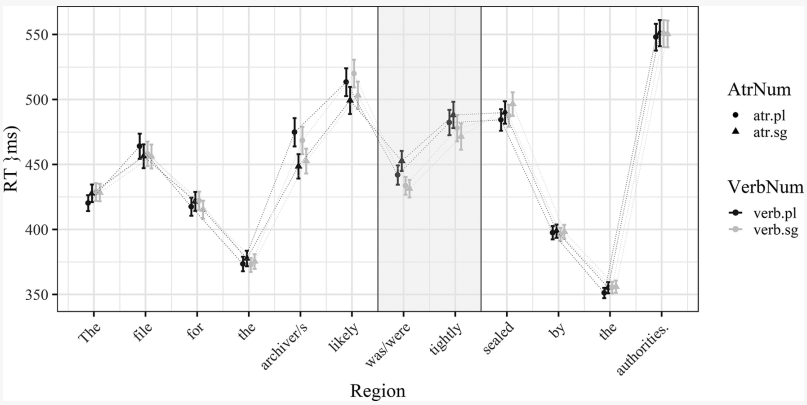
>
> *Jan Chromý*

Previous research by the same team established that this specific illusion is virtually non-existent in Czech. Due to the rich morphology of the Czech language, speakers rely heavily on the main subject (the head noun) and ignore distractions. Czech is, therefore, an "attraction-faint" language. However, the new study, which tested nearly 600 native Czech speakers, found something surprising. When these same "immune" speakers

read in English, they fell for the attraction illusion to a similar extent as native English speakers do.



Raw RTs for all sentence regions in the L2 English-only data.

"The most significant finding is the stark contrast in processing," explains lead author Dr. Jan Chromý. "Our participants didn't try to apply their reliable, Czech-based strategy to English. Instead, they switched to an English-specific processing mode. They processed the sentences exactly like native English speakers, including the susceptibility to this specific cognitive illusion."

While the study proves that bilinguals can fully adopt the processing patterns of a second language, it also found that the native language can step in to help—under specific conditions.

When participants performed the reading task in their native Czech first, and then took the English test weeks later, the illusion in English disappeared. Activating the "attraction-faint" native language seemed to prime the brain to pay closer attention to the true subject, a strategy that carried over to English and acted as a temporary cognitive shield.

"It appears that while our brains are capable of adopting the 'glitchy' habits of a second language, active use of the native language can reinstate a more reliable reading routine," adds Chromý. "This suggests that the way we process language isn't static; it is dynamic and influenced by which language 'mode' is currently dominant."

The findings offer a fascinating glimpse into the mechanics of bilingualism, suggesting that achieving high proficiency involves more than learning vocabulary and rules—it involves adopting the underlying, and sometimes imperfect, cognitive patterns of the target language.

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