

# Psychologists reveal the un, deux, trois of learning a second language

March 19 2009

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(PhysOrg.com) -- Parlez-vous français? If you were quick at learning foreign languages at school, it could be because your brain has an enhanced ability to remember sequences.

Psychologists at the University of Sussex have been investigating [bilingualism](#) and have found that adults who speak fluently in more than one [language](#) exhibit more activity in the part of the brain related to remembering serial order.

Their findings, reported in the journal Cognition\* last year, are now feeding into new research by DPhil student Kathrin Klingebiel and her supervisor Dr Brendan Weekes, involving [primary school children](#) in Brighton and Belgium.

With the Government setting a target of 2011 for all primary school children to have an entitlement to [learning](#) a foreign language, their study could help schools devise the most effective methods for teaching.

Working with children at Coldean Primary School in Brighton, where French has been taught for a number of years, and at a school in Liege in Belgium, where the children learn English, the researchers will be assessing the relationship between [memory](#) for serial order, item memory and vocabulary acquisition.

To test for serial order, the children are given an auditory presentation of a list of animals names (bear, cat, horse etc). Each child is then given

cards with one of the animals depicted on each card and is asked to reconstruct the order of the presentation.

Dr Weekes said: "What we have found by studying trilingual adults in Belgium is that people who are good at learning a [second language](#) are proficient at what we term, serial order memory. In other words, they are good not just at remembering items, but remembering where they come in a sequence. This short term memory is then rehearsed by the brain to turn it into long-term memory.

"What we would expect to see with the children is that those who reconstruct the list accurately will find learning a second language easier. We don't know whether this is an ability the children are born with, or whether it is a strategy that they have developed. But it could certainly help with devising effective teaching methods."

The two-year project, which is funded by the British Academy and the Royal Society, is a collaboration with Dr Steve Majerus from the University of Liege who, carried out post-doctoral research at Sussex in 2006.

More information: Majerus, S., Poncelet, M., van der Linden, M. & Weekes, B.S. (2008). Lexical learning in bilingual adults: the prevailing importance of serial order short-term memory mechanisms. *Cognition*, 107, 395-419.

Provided by University of Sussex

Citation: Psychologists reveal the un, deux, trois of learning a second language (2009, March 19) retrieved 2 May 2024 from <https://medicalxpress.com/news/2009-03-psychologists-reveal-deux-trois-language.html>

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