

Language, dialect heard in infancy never really forgotten, study finds

NUS team also finds early exposure to another language does not affect acquisition of English

Amelia Teng
Education Correspondent

A language or dialect heard during a child's first few years of life can leave a lasting "ghost in the brain" effect, even if it is neglected later on.

A recent study by National University of Singapore (NUS) researchers has found that Singaporeans who were exposed to Hokkien as young children because of their main caregivers were able to process uniquely Hokkien tones as adults, even though they had not used the dialect for years.

This group, compared with those who had no Hokkien exposure and had caregivers who spoke to them

only in English, were also better in applying the rules of the dialect to acquire new words.

The study, published in the *Journal of Experimental Child Psychology* in May, also found that early exposure to another language does not affect children's acquisition of English.

Associate Professor Leher Singh, from NUS' department of psychology, said the results were consistent with other studies on adopted children, who similarly could process the sounds of the first language they heard during infancy even when, as adults, they had lost the ability to speak or understand the language.

This "ghost in the brain" effect

shows that languages and dialects acquired early have a "special place in your brain, such that you can reactivate them under the right circumstances", said Prof Singh.

"There's something there in your memory from an early acquired language that has stayed there, even though you haven't been using that language."

Prof Singh added that learning another language apart from English as a young child and being exposed to "broken" English does not mean the child is worse off in picking up English later on.

"Children are very robust, much more than adults, to the effects of variation in dialect and accent... You can hear a lot of varied input early in life, and you don't show long-term confusion or long-term negative effects," she said.

The results can also be extended to other dialects or languages such

LASTING EFFECT

There's something there in your memory from an early acquired language that has stayed there, even though you haven't been using that language.



ASSOCIATE PROFESSOR LEHER SINGH,
from the department of psychology at
the National University of Singapore.

as Mandarin, said Prof Singh, adding that Hokkien was chosen for the study as young adults are unlikely to use or hear it very much today, unlike Mandarin.

The NUS study, which was conducted from January to May last year, involved 34 Singaporean Chinese participants aged between 19 and 22.

Half of them were taken care of from birth by Hokkien-speaking grandparents and could speak Hokkien when they were young but no longer recalled the dialect in adulthood. Tests were done to make sure they did not remember the dialect.

The rest had caregivers who spoke to them only in English.

The participants were given four tasks to measure their English language proficiency in terms of phonological, semantic and grammatical knowledge. Both groups

performed just as well in the tests.

They then completed more activities to assess their sensitivity to Hokkien tonal phonology and ability to acquire vocabulary, after picking up some basic knowledge of the dialect on the spot.

The group who had early Hokkien exposure had a near-perfect score for the task that required them to recognise similar tones across different syllables, while the other group had about 85 per cent of their answers correct.

Prof Singh hopes to continue studying toddlers' language development, especially during the period from birth to three years old, which she describes as a fertile time for conversation between children and their caregivers.

Hokkien may not be widely used today, she said, but there have been attempts to revive interest in the dialect as a way to understand family history and heritage.

"I'm really interested in this idea of forgotten languages and whether they're really ever forgotten," Prof Singh added.

Her study's research team is looking to recruit young children up to the age of three as participants for other studies. Parents who are interested can call 6516-7751 or e-mail infantlanguagecentre@nus.edu.sg.

ateng@sph.com.sg