

Babble Of Baby Reveals Language Skills

3 November 2009, By Jason Socrates Bardi, ISNS



Credit: CDC.gov

Children have a remarkable ability to learn new languages. As little as five hours of exposure to a second language is enough to help infants incorporate characteristics of that language into their babbling according to a new study.

Studies conducted during the last 25 years have shown that [babies](#) begin to develop the ability to understand the [native language](#) of their parents as early as 6 months old. By their first birthday, infants become especially attuned to its subtle nuances in sound -- so much so that their ability to perceive differences between foreign sounds decreases.

A few years ago, scientists showed that even a limited, short-term exposure to a second language could reverse this decline. As little as a few hours exposure to Mandarin could help a child from an English-speaking household retain the ability to distinguish English sounds from Mandarin sounds.

Many linguists have questioned whether the same effect would be true of language production, wondering if exposing infants to a second language helps them to speak by using foreign sounds.

The study conducted by Nancy Ward and Megha Sundara from the University of California in Los Angeles and Patricia Kuhl and Barbara Conboy from the University of Washington in Seattle has

shown that one-year-olds can incorporate characteristics of a [second language](#) into their babbling with as little as five hours of exposure.

Thirteen one-year-old children from English-speaking households played with Spanish-speaking research assistants for a total of five hours, spread out in 30 minute sessions over six weeks. At the end of the five hours, the researchers recorded and analyzed the babies' interactions with their parents in English and with the [Spanish](#) speaker.

"There was a difference between the babbling," said Ward, who presented the findings last week at a meeting of the Acoustical Society of America. She said that every baby but one in their study showed characteristics of Spanish after the short five hour exposure.

As a language, Spanish has more multi-syllable words than English. The babies imitated this, changing the cadence of their babbling. This was the first time anyone had ever shown that children this young can incorporate language-specific cues into their speech production after such a short exposure.

These changes, revealed by analyzing the recordings, were subtle. When the researchers played the babbling to native English and Spanish speakers, the listeners could not reliably tell the difference.

Said Ward, they suspect this is because the people were listening for the wrong thing. People are generally attuned to listen to the consonant and vowels for difference in languages -- not the cadence, she explained. At 12 months, these consonant and vowel sounds are largely the same for all babies regardless of what their native [language](#) is.

Ward said that the next step will be to put the recordings through an audio filter that will change the sounds to highlight the difference in cadence. This should reveal the influence of the foreign

tongue to the adult listeners, she suspects.

Source: Inside Science News Service, By Jason
Socrates Bardi



APA citation: Babble Of Baby Reveals Language Skills (2009, November 3) retrieved 7 March 2021 from <https://medicalxpress.com/news/2009-11-babble-baby-reveals-language-skills.html>

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