



Bite your tongue, baby is listening

It's never been more important to watch what you say in front of your baby.

New research findings from the MARCS Institute for Brain, Behaviour and Development at Western Sydney University show that babies really are smarter than we think and, using a sophisticated system of statistics, can determine the meaning of new words in their environment without ever being explicitly told.

Dr Karen Mulak, who headed the research, said during testing, infants were shown pairs of images and then played the names of those images but in no particular order.

She said using that limited information, infants were able to determine which word corresponded to which image, and successfully learned eight (8) new words in the span of just three (3) minutes.

"Learning new words is a difficult task. At any given moment, the world presents learners with a seemingly infinite number of potential meanings for just one word," she said.

"Despite the ambiguity and difficulty of the task, infants are able to acquire new words, with Australian English-learning infants going from saying none or just a few words at 12 months, to over 100 words eight months later, and more than 400 words eight months after that."

Dr Mulak said when toddlers heard a word they didn't know or understand, their minds subconsciously tracked the possible meaning based on what was present in their surroundings.

She said after just a few encounters with the new word, they were able to use sophisticated statistical knowledge about words to narrow down the meaning.

"This is the first experiment of its kind to demonstrate that infants and toddlers can not only track statistics, but can do it within fine margins of similarity," she said.

"We knew that infants could learn new words that were very different from one another in this way, but what is surprising is that they can also do it for similar sounding words that differ only by a single vowel, for instance; *deet* and *dit*."

"This new discovery is particularly exciting, especially since we know that even adults find this process difficult."

Dr Mulak said the research findings contributed to mounting evidence that suggests that children are very powerful statistical learners.

She said the discovery offered a real-world approach to how we teach children to speak, understand and learn language.

For more information, go to: <http://journal.frontiersin.org/article/10.3389/fpsyg.2016.01419/full>

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Behaviour and Development



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THE DYNAMICS OF LANGUAGE

This research was made possible thanks to funding from the Australian Research Council Centre of Excellence for the Dynamics of Language.

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