

Expressing comparisons is possible even without language, researchers find

June 30 2009

(PhysOrg.com) -- Making comparisons between objects, like comparing a tiger to a cat, is elemental in the development of a child's ability to grasp the concept of categories.

Language plays an important part in expressing such comparisons, but even without the ability to speak or sign, deaf children can convey similarity comparisons through gesturing, according to a new article published by a Georgia State University researcher and colleagues.

“What we found was that these deaf children were able to make similarity comparisons by pointing sequentially at two perceptually [similar](#) objects,” said Şeyda Özçalışkan, assistant professor of psychology, whose research with Susan Goldin-Meadow and Carolyn Mylander of the University of Chicago, and Dedre Gentner of Northwestern University, appears in the journal *Cognition*.

The deaf children were compared with hearing children during early childhood, examining comparisons made before and after children gained the use of the word “like.”

“In looking at the more detailed aspects of these early comparisons, we found that the deaf children's comparisons in gestures were similar to the comparisons hearing children express across gesture and speech before they started using the word ‘like,’ such as pointing at a cat while saying the word tiger, ” she said.

As the children grew older, the comparisons diverged — deaf children's comparisons remained broader in nature, while hearing children's comparisons became more complex and focused, such as saying that the hair was brown like a brown crayon, after hearing children started using the word “like.”

The study speaks to a broader question, Özçalışkan said — does [language](#) actually have an effect on a person's thinking process?

The study examined data from observations taken by Goldin-Meadow during in the 1970s, when children did not receive sign language training at early ages. Instead, the focus was to get children to attempt to lip read spoken English. In current practice, many deaf children receive cochlear implants which improves their ability to learn spoken language, and [deaf children](#) are exposed to conventional sign language early in life.

“I think that learning a word that highlights comparison such as ‘like’ might actually change the kinds of similarity comparisons a child can produce,” Özçalışkan said.

The article, “Does language about similarity play a role in fostering similarity [comparison](#) in children?” is published in [Cognition](#), 2009, 112(2), 217-228.

Provided by Georgia State University ([news](#) : [web](#))

Citation: Expressing comparisons is possible even without language, researchers find (2009, June 30) retrieved 26 April 2024 from <https://medicalxpress.com/news/2009-06-comparisons-language.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.