

# NEWS

[Front Page](#) | [News](#) | [Sports](#) | [Business](#) | [Lifestyles](#) | [Opinion](#) | [A&E](#) |

[Home](#) > [Featured Articles](#) > **Blind People**

## Gestures Aren't Just For The Listeners, Study Shows

November 27, 1998 | By William Mullen, Tribune Staff Writer.

Recommend

0

Tweet

0

0

Finding out that blind children who have been sightless since birth use the same hand gestures as they talk as children with normal eyesight is giving University of Chicago researchers insight into how all children learn.

Psychologist Susan Goldin-Meadow said the experiments with the blind children show that gestures used while talking probably have as much to do with helping a speaker's own thought processes as they do with visually helping to convey meaning to his spoken words.

She and one of her former students, Jana Iverson, report their findings in the article "Why do People Gesture?" in a recent issue of the British research journal *Nature*.

"Our findings underscore the vital importance of gesturing in speaking," said Goldin-Meadow. "Gesture is not just a flourish people use while they talk."

Talking gestures used by blind people, she said, are much the same as when people with normal eyesight use hand gestures while talking on the telephone, when the people they are speaking to cannot see them or the gestures.

Goldin-Meadow has become a specialist in the uses of gesture, often using sensory-deprived children, such as the blind, as the subjects of her work. Early this year, for example, she co-wrote a report on her observations of young deaf children in the U.S. and in Taiwan, and how they use identical gestures to communicate their needs and wants before they are taught sign language.

Studying sensory-deprived children, Goldin-Meadow said, is a way of discovering intellectual growth patterns of all children. The hand gestures each child uses may offer a window into the child's thought processes and intellectual progress, she said, allowing schoolteachers to determine when the child is ready to learn.

In the most recent study, researchers worked with children from 9 to 18 years of age who had been blind since birth, assuring that they could not have learned hand gestures from visual observation. The study also included a separate control group of sighted children with similar age and ethnic backgrounds.

The children were put to work on a variety of reasoning tasks that required physical manipulation of objects, such as pouring liquids into different shaped containers and moving around sticks. Later, while being videotaped, the children explained to a researcher how they thought through the problem.

"We found that all 12 blind speakers gestured as they spoke, despite the fact that they had never seen a gesture," Goldin-Meadow stated in the article.

"The blind group gestured at the same rate as the sighted group and conveyed the same information using the same range of gesture forms."

The blind and sighted children used their hands identically to indicate the height, width and length of objects, and to indicate "scooting" and spreading motions while showing how objects were moved around.

The blind children also used the gestures while describing their actions to people they knew to be blind, she said, underscoring that use of gestures is not solely for the benefit of others.

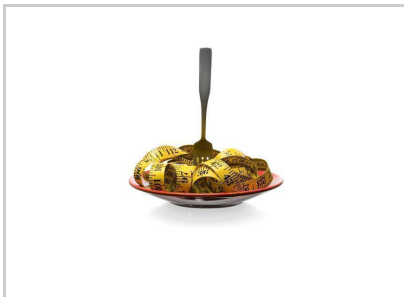
Over her years of studying gestures, Goldin-Meadow said she has detected patterns of spontaneous gestures in all children that may be useful "harbingers" that mark a child's readiness to learn for teachers.

Goldin-Meadow has noted that when children are stymied by a new intellectual task, they often display confusion by describing the problem verbally in one way, while their hand gestures move over the problem in an opposite direction. This dichotomy of thought and action is called a "gesture-speech mismatch."

Fourth graders, for example, presented with a mathematic equivalence problem such as "5 + 4 + 3 = ? + 3," often verbally try to solve it simply by adding 5, 4, 3 and 3, ignoring the equal sign. But, she said, if the children move their fingers over the problem and end up hovering mainly over the "5 + 4" figures, it indicates they are intuitively beginning to understand the meaning of equivalence.

"When you see a gesture-speech mismatch occur with a child, it actually is a perfect time to zero in on the lesson," said Goldin-Meadow. "Mismatchers are the children who are ready to learn. Verbally they show no understanding of the problem, but their gestures reflect an implicit knowledge they aren't yet able to articulate."

**Featured Articles**



Decoding the diabetic diet



As other polls show tight race, Gallup stands apart



For heart health, fish oil pills not the answer: study

**MORE:**

George Wendt has bypass surgery in Chicago, comes out laughing

Steps can be taken to relieve or prevent night leg cramps

Cardinal writes to priests prior to election

Hurricane Sandy silences Atlantic City's casinos

Groupon stock falls to all-time low as IPO anniversary nears

Bloomberg endorses Obama for a second term, climate change a focus

## Related Articles

### A Simple Gesture

*November 26, 1998*

### Talking Money Reveals Its Value To Aid Blind People

*October 26, 1990*

### A Mobility Specialist Talks With Norma Libman

*October 8, 1989*

### When words fail, gestures can speak volumes

*June 22, 2007*

## Find More Stories About

Blind People

---

Terms of Service  
Privacy Policy  
Index by Date  
Index by Keyword  
[www.chicagotribune.com](http://www.chicagotribune.com)

**Connect**  
Like us on Facebook  
Follow us on Twitter

