

# Communication study: Actions used with words speak even louder

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Here's your assignment: Explain how to wrap a package. It's quite likely that you'll use gestures to enhance — perhaps even to guide — your verbal instructions. Now try to teach this lesson in gift-wrapping while keeping your hands firmly at your side. Notice any differences between your two tutorials?

The preceding paragraph describes one of many tests that Martha Alibali, professor in the departments of Psychology and Educational Psychology, and her colleagues have used in their studies of the role of gestures in communication.

“We've had people describe how to wrap a package while using gestures and without,” Alibali explains. “People tend to make different word choices when they're allowed to gesture; they use richer kinds of words.” Without gestures, their directions tend to be choppy and more mechanical.

The body of research that shows how gestures enhance the communication of information and ideas continues to grow, explains Alibali, who is among the leading scholars in this field. “Gestures often convey information that is not expressed in speech.”

In particular, she is interested in how gestures affect classroom instruction.

“I believe that communication is integral to much of the learning that

goes on in educational settings, and so it is natural to consider whether some of the important ‘action’ in instructional communication is going on in gestures,” Alibali says. Growing evidence shows, she notes, “that teachers’ gestures make a difference in instructional communication — children learn more when teachers ‘ground’ their speech with gestures.”

Her interest in gesture studies was kindled when, as an undergraduate, she worked in the lab of Susan Goldin-Meadow, a leading gesture researcher. She recalls, “One of my first assignments was to transcribe and code the gestures of children solving quantity conservation problems. I was fascinated by the observation that children sometimes express knowledge in gestures that they do not express in speech.”

For instance, she notes that some children, while talking about the height of an object, indicate width with their hands. Alibali doesn’t see this gesture-speech mismatch as necessarily contradictory, but notes that the speaker may simply be providing an additional, unspoken piece of information.

Alibali says that the field of gesture studies has grown in the past 15-20 years, thanks in particular to advances in video technology. *Gesture*, a journal devoted to this area, was launched in 2001. In 2002, researchers established the International Society for Gesture Studies (ISGS), of which Alibali is a member.

Currently, Alibali, in collaboration with other researchers, is focusing on two core issues:

- \* What do gestures do for speakers? For example, do gestures help speakers “package” visual-spatial information into verbal form?
- \* Do gestures facilitate comprehension and learning, particularly in instructional settings such as classrooms and tutoring?

“I examine how people use gestures depending on the situation, the communicative context, and the nature of the information being expressed,” she explains.

She and other researchers have noted how differences in content produce different gestures. For instance, someone might use a smooth, rising sweep of the hand to describe steady growth, but might use a series of rising hand chops when describing a similar slope that refers to growth in increments.

One issue that currently intrigues Alibali and her colleagues involves whether teachers can learn to control their gestures for optimal instructional effect. Even though speakers often don’t remember gesturing, there is evidence that they do alter their gestures to fit the communicative situation. This raises an interesting possibility. “If teachers can indeed intentionally alter their gestures, they may be able to learn how to use gestures effectively in instruction.”

In a new paper, Alibali and her colleagues describe a pilot study, in which six teachers — all working on graduate degrees at UW-Madison — each taught a mathematics lesson three times: first, as they wished; second, after receiving a five-minute tutorial on gestures; and third, with instructions to inhibit the use of gestures.

The researchers report that “teachers produced more gestures following a tutorial about the effectiveness of gestures than they produced with no instruction. Teachers were also able to inhibit their gestures when asked to do so.”

What does this mean? “Teachers may need support to learn how to use gestures effectively,” Alibali says. “Currently there is virtually no attention to gestures in teacher education. To fully harness the potential of gestures in the classroom, it may be helpful to provide teachers with

explicit instructions regarding the use of gestures to supplement and ground their speech.”

She and her colleagues say that “future research is needed to more fully investigate the effects of producing gestures for both teachers and students.”

Alibali adds, “There is still a great deal to be learned about how gestures ‘matter’ in instructional communication. What types of gestures are most beneficial? Are gestures more important for some learners than others (e.g., children with language impairments, second-language learners, visual learners)?”

She also notes that most research on gesture and communication has simply compared conditions with gesture and without. “I want to look at the range of gestures, spontaneous and purposeful. I think understanding the roles of different types of gestures in communication would help both speakers and listeners.”

Source: University of Wisconsin, by Kerry Hill

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