



## Gestures can lend a hand to soldiers and students alike

2/18/2006

The unspoken can speak volumes when it comes to using gestures, say experts who point to the helping hand that nonverbal communications are lending from soldiers in Iraq to students in the classroom.

The study of gestures is relatively old, said Justine Cassell, a professor of media technology and society at Northwestern University. What is new is the acceptance that gestures themselves can tell something about how humans think.

In Iraq, Afghanistan and elsewhere in the Middle East, that knowledge has found its way into a video game and training program that the Pentagon is using to give soldiers a crash course in how to speak and gesture like locals.

"Many of the conflicts in the world today could be avoided if people could communicate better," said Hannes Vilhjalmsson, a University of Southern California research scientist who helped create the Tactical Iraqi and similar programs with funding from the Defense Department.

Details were presented Friday at the annual meeting of the American Association for the Advancement of Science.

The simulators are equal parts tutorial and video game. They place soldiers in simulated, three-dimensional Middle Eastern environments and expose them a variety of social situations.

The soldiers can interact with local residents, including curious boys, shy women and suspicious men, after learning basic language and gesturing skills. The "natives" are all independently endowed with artificial intelligence and react according to how well or poorly a soldier handles a situation.

A single woman will turn away -- and a nearby knot of men bristle -- if a soldier charges up to her. Likewise, young children will warm to a soldier who stoops to their level and removes his sunglasses before asking simple questions, Vilhjalmsson said in displaying the program.

"They are building an impression of you as you interact with them," he said.

Key to the process are the gestures that soldiers incorporate in their interactions, including simple motions like placing a hand over the heart in greeting.

"Gesturing is not merely hand-waving. It conveys substantive information -- thoughts that often are not conveyed in words," said Susan Goldin-Meadow, a professor of psychology at the

University of Chicago.

Goldin-Meadow's own work has shown that students who mimic a math teacher's gestures learn new problem-solving strategies more quickly than do their peers who don't gesture.

"If you move your hands -- if you represent your ideas not only in the mouth but in the hands as well, you are more likely to benefit from instruction than you will if you don't move your hands," Goldin-Meadow said. Gesturing also may make thinking easier, she said.