

Baby Talk is Universal

August 21, 2007

A major function of speech is the communication of intentions. In everyday conversation between adults, intentions are conveyed through multiple channels, including the syntax and semantics of the language, but also through nonverbal vocal cues such as pitch, loudness, and rate of speech.

The same thing occurs when we talk to infants. Regardless of the language we speak, most adults, for example, raise their voices to elicit the infant's attention and talk at a much slower rate to communicate effectively. In the scientific community, this baby talk is termed "infant-directed speech."

There are direct relationships between the way we speak and what we wish to convey. For example, when we see a child reaching for the electrical socket, we do not call out their name as we would during a game of hide-and-go-seek.

Researchers Greg Bryant and Clark Barrett, at the University of California, Los Angeles, propose that the relationships between sounds and intentions are universal, and thus, should be understood by anyone regardless of the language they speak.

To test their hypothesis, Bryant and Barrett recorded native English-speaking mothers as if they were talking to their own child and then as if they were speaking to an adult. The speech varied across four categories: prohibitive, approval, comfort, and attention. Then, they played the recordings to habitants of a Shuar (South American hunter-horticulturalists) village in Ecuador to see if the participants could discriminate between infant-directed (ID) and adult-directed (AD) speech, and whether they could tell the difference between the categories in both types of speech.

The results, which appear in the August issue of *Psychological Science*, published by the Association for Psychological Science, showed that the Shuar participants were able to distinguish ID speech from AD speech with 73% accuracy. They were also able to tell which category (e.g. prohibitive, approval, etc.) the English-speaking mothers used, but they were better at this when the mothers used baby talk.

This is the first study to show that adult listeners in an indigenous, nonindustrialized, and nonliterate culture can easily tell the difference between baby talk and normal adult directed speech.

"These results also provide support for the notion that vocal emotional communication manifests itself in similar ways across disparate cultures," writes Bryant. Future research might focus on how infants respond behaviorally when listening to infant-directed speech in a different language.