

‘Baby Talk’ Is Less Clear Than Normal Speech

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People tend to speak more slowly, use a sing-song voice, and use cutesy words like “tummy” when speaking to babies and small children. While we might be inclined to think that this kind of “baby talk” is easier for children to understand, new research suggests that mothers may actually speak less clearly to their infants than they do to adults.

In a truly collaborative effort, two research teams — one in Paris, France, and the other in Tokyo, Japan — recorded 22 Japanese mothers talking to their 18- to 24-month-old children and to an experimenter. A team of experts at the Laboratory for Language Development at the RIKEN Brain Science Institute in Tokyo then spent 5 years annotating the 14 hours of speech, marking specific aspects of the speech, including the beginnings and ends of consonants, vowels, and phrases.

Next, the researchers applied a technique they had developed to measure the acoustic similarity between any two syllables, like “pa” and “ba” or “po” and “bo.” Because the analysis is automated, the international team was able to examine the 118 most frequent syllable contrasts in both the adult- and child-directed speech patterns.

The results were surprising: Mothers spoke slightly *less* clearly when talking to their child than when talking to the experimenter.

“This finding is important because it challenges the widespread view that parents do and should hyperarticulate, using very robust data and an analysis based on a study of 10 times as many syllable contrasts as previous work,” says **Alejandrina Cristia**, a researcher at the Centre National de la Recherche Scientifique in Paris.

The researchers caution that these findings don’t provide any evidence regarding whether speaking more or less clearly to your child boosts language acquisition. But they may shed light on why babies seem to be so much better at learning the distinctive sounds of their language than adults are.

“Our results suggest that, at least for learning sound contrasts, the secret to infants’ language-learning

genius may be in the infants themselves — the fact that they are able pick up sounds from input that is less clear than that used by adults with each other makes this accomplishment all the more remarkable,” explains researcher **Andrew Martin**, a member of the Tokyo team.