Listen-Rate-Say: A Paradigm for Studying Speech Input to Children

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Phonological acquisition is a social act. Infants are exposed to speech sounds produced in social contexts, and often in social interactions with caregivers. Much is known about the characteristics of the speech that children produce, and the speech that is produced to children. Relatively little is known about the interaction between children's and caregivers' speech. This poster will describe a recent experiment by Julien and Munson (2012) designed to examine whether acoustic detail in adults' productions to children varies systematically depending on the perceived accuracy of the child's speech. Twenty-two adults participated in a task in which they rated the accuracy of 2- and 3-year-old children's word-initial /s/ and /ʃ/ using a visual analog scale (VAS), then produced a token of the same word as if they were responding to the child whose speech they had just rated. As in previous research, adults' VAS judgments were strongly correlated with the acoustic characteristics of children's productions. Moreover, adults produced fricatives that were longer (though not more spectrally distinct) following children's productions that they had rated to sound inaccurate compared to fricatives produced after hearing a child's production that was judged to sound accurate. This tendency was stronger in adults who reported spending more time with children in an average week than for adults who reported spending less time with children. The tendency was not related to individual differences in the production of fricatives in clear or conversational speech in a baseline reading task. These longer fricatives in response to inaccurate productions provide children with an enhanced model during speech sound acquisition. They might also serve as an error-correcting signal for children with inaccurate productions.

References

Julien, H., & Munson, B. (2012). Modifying speech to children based on their perceived phonetic accuracy. Journal of Speech, Language, and Hearing Research, 55, 1836-1849.