Title: Acoustic prominence in conversation: the effect of addressee

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Prominence is affected by the context in which words are spoken: Less predictable words are spoken with greater prominence while predictable words are spoken with less prominence. However, predictability may vary depending upon one's addressee. Friends share common ground, which can serve as an additional source of information making utterances more predictable for friends than strangers. This may impact the prominence with which they produce words. We test this hypothesis in a referential communication task adapted from Lam & Watson (2010) in which speakers described two events affecting objects in a 3x4 display.

In this task, participants worked with a partner to manipulate objects on a screen. On each trial, one object shrank then another object flashed. One participant described these events to a partner while being recorded. The target word was the reference for the object that flashed.

We manipulated friendship status and target predictability. Friendship was a between subjects manipulation in which speakers were paired with either a friend or a stranger. To manipulate predictability, a circle probabilistically cued the target of the second event before it flashed. On predictable trials (11/12 of trials), the cue correctly signaled the object involved in the second event. The rest of the time the cue was invalid. We also manipulated ambient, background noise to test a separate research question, but do not report those results here.

If speakers are sensitive to differences in common ground that correlate with friendship, friend pairs should have reduced prominence compared to stranger pairs. If speakers are not sensitive to these differences, speakers should show a simple predictability effect regardless of friendship status.

The results were analyzed with mixed effects regression. We present prominence in terms of intensity and duration. For intensity, there was a main effect of friendship: speaking to strangers led to greater intensity than speaking to friends. There was a main effect of predictability that did not interact with friendship: predictable words had lower intensity than less predictable words. For duration, there was a significant interaction between predictability and partner: friends produced a smaller predictability effect than strangers. Additionally, there was a marginal effect of predictability: predictable words had shorter duration than less predictable words.

The results suggest that the relationship between interlocutors can affect the prominence with which words are produced. This suggests that theories of acoustic prominence must be expanded. Contextual factors such as friendship may affect acoustic prominence.

References:

Lam, T. Q. & Watson, D. G. (2010). Repetition is easy: Why repeated referents have reduced prominence. *Memory & Cognition*, 38(8), 1137-1146.