Why do we shorten repeated words? Evidence against the production priming account.
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When does repetition reduction occur?
The second time I say *this word, this word* will be reduced– shorter, quieter, and flatter. What production factors lead to duration reduction?
- Hypothesis 1: Facilitation Reduction
- Hypothesis 2: Auditory priming

Hypothesis 1: Facilitation Reduction (Kahn and Arnold, 2013)
- Facilitation at any level of the production system (conceptual, lexical, and phonological) leads to reduction, even when said by another person (see also Bard et al., 2000).
- However, homophones do not prime (Fowler, 1988)

Prediction: All production practice that leads to activated representations should lead to reduction.

Hypothesis 2: Auditory priming
- Hearing a phonological sequence leads to reduction
- Should apply to homophones as well as repeated words but not inner speech

Prediction: Only auditory experience of a phonological sequence should lead to reduction. Alternatively, only lexical repetition leads to reduction. There should be no reduction following inner speech.

Experimental Design
Discourse Manipulation (given vs. new)
- Prime: The *fly* shrinks
- Target: The *clown* *fly* flashes

Speech Style Manipulation
The prime sentence is either spoken aloud (control), produced as inner speech (Exp. 1), or produced as mouthed speech (Exp. 2) or a homophone (Exp. 3). The target is always spoken aloud.

Predictions
1: Priming leads to reduction in all conditions.
2: If hearing a specific phonological sequence is necessary, then we should only see reduction after a repeated sequence.

Conclusions
- Recent auditory experience leads to duration reduction
- Repetition of an articulatory pattern (Exp. 2) or repeatedly retrieving its semantics (Exp. 1) does not facilitate production
- Homophones prime because their phonological representations are close enough to facilitate (Exp. 3).
- Reduction on content words is different from facilitated message planning.
- Duration reduction is most sensitive to primed auditory representations, not just any facilitation

References