

The shortening of repeated words does not depend on speakers receiving auditory feedback

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Introduction

Why are repeated words produced with shorter durations?
Auditory feedback hypothesis states that you have to hear yourself say a word aloud for repetition to influence prosody (Jacobs, Yiu, Watson, & Dell, 2015)

Research question

- (1) Is auditory feedback sufficient for repetition reduction?
- (2) If so, what feedback do speakers need?

Design

Speakers produce two sentences that vary in their relationship

Prime: The X shrinks.

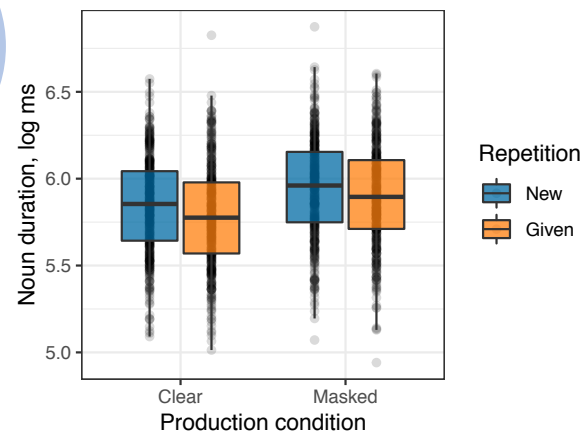
Target: The Y flashes.

New: prime = pizza, target = cat

Given: prime = cat, target = cat

Experiment 1

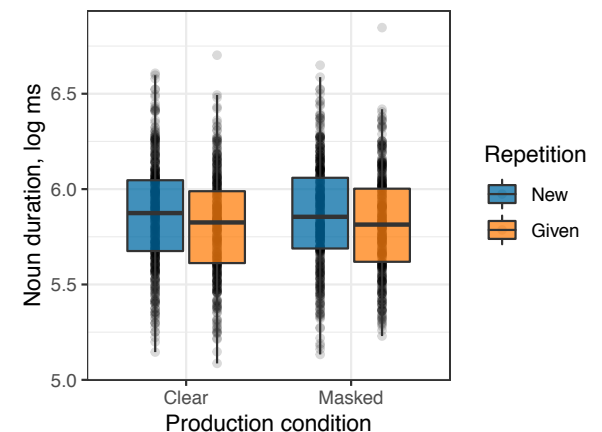
Both primes and targets masked with 90dB speech noise to reduce auditory feedback



Repetition reduction occurs in noise – does bone conduction provide some feedback?

Experiment 2

Mask speech as in Experiment 1
Primes produced in whisper to reduce feedback from bone conduction



Speakers reduce repeated words even when somatosensory feedback is primary input

Conclusions

Results do not directly support the Auditory Feedback Hypothesis. Any type of memory of the duration of the word can lead to repetition reduction. Sensorimotor prediction during production may take advantage of any recent production.



Reference: Jacobs, C.L., Yiu, L., Watson, D.G., & Dell, G.S. (2015). *Journal of Memory and Language*, 84, 37-48. doi: [10.1016/j.jml.2015.05.004](https://doi.org/10.1016/j.jml.2015.05.004)
Funding: This project was funded in part by NSF-BCS grant 1557097 to the third author.