Why do we shorten repeated words? Evidence against the production priming account
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What is reduction?
Words get shorter, quieter, and less prominent [1, 2, 3]. Happens for words that are repeated, given, or predictable.

How does reduction arise?
• Facilitation of the production system [1, 2]
  Recent lexical access [1, 2]
  Auditory feedback [2]
• Audience design and comprehensibility [2]

What is inner speech?
• Unmouthed inner speech:
  No overt muscle movements
  May be phonologically impoverished [4, 5]
• Mouthed inner speech
  Articulated without sound
  Seems to be phonologically rich [4, 5]

Experiments 1 & 2 Design
Prime
“The clown shrinks”

Target
“The fly flashes”

Discourse Manipulation (GIVEN vs NEW)
The clown/fly shrinks
The 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). The target is always spoken aloud.

Predictions
If general priming of the production system leads to reduction, there should be reduction in all conditions.

Experiment 1 – Inner speech

Results

Onsets – Exp. 1
Repetition reduces onsets

Durations – Exp. 1
Repetition shortens durations only after overt speech

Discussion
A word that is produced in inner speech (whether it is articulated or not) primes production leading to quicker onsets for repeated items.

However, this priming only leads to reduced durations for repeated items when the first utterance is overt.

Priming the production system is not the mechanism for the reduction of duration in repeated items.

Experiment 2 – Mouthed

Results

Onsets – Exp. 2
Repetition reduces onsets

Durations – Exp. 2
Repetition shortens durations only after overt speech

References