Um and Uh as Differential Delay Markers: The Role of Contextual Factors

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Abstract

The English filled pauses uh and um have been argued to correspond respectively to shorter and longer anticipated delays in speech production. This study looks at some contextual factors that might cause this difference by investigating filled pauses in monologue and conversation speech corpora. Results are consistent with previously observed delay differences and further show that discourse-level processing may influence differential delay marking though monologue results are more conclusive than conversation results. However, no evidence was found that lexical factors (word type, frequency) correlate with filled pause choice. The findings suggest a limited view of how speakers use filled pauses as delay markers: Not all contextual factors may trigger differential delay marking.

Method: Sampling FPs from monologue and conversation corpora

Corpus of Oral Presentations in English (COPE) (Watanabe, unpublished)
- Unscripted monologue
- 10 mins preparation
- 10 mins speech
- 20 recordings
- 10-15 mins each
- Sample
  - First 2 mins of 10 recordings (20 mins, 10 speakers)
  - 163 FPs

Santa Barbara Corpus (SBC) (Du Bois et al 2000)
- Free conversation
- Various settings and speakers
- No investigative task
- 60 recordings
- 15-30 mins each
- Sample
  - 7 recordings
  - 165 mins, 17 speakers
  - 489 FPs

Measurements
- FP duration
- Post-FP silent pause duration
- FP proportion
- Duration
- Delay duration
  - FP dur. + SP dur.
- U/s ratio at clause locations
  - Vdiscourse strut.
- Post-FP content word proportion
- Post-FP word freq.

Results: FPs from monologue and conversation corpora

Articulatory duration of FPs differs between: speech > uh in monologue, but uh > um in conversation.

Results 1: Temporal parameters of FPs

Results 2: Clause location

Delay by clause locations (secs)

In monologue, um > uh at boundaries, but um = uh internally. In conversation, um = uh consistently.

Results 3: Following word status

No clear differences are apparent based on following word status.

Discussion

Results show FPs are not generic markers of differential linguistic processing difficulty.

Differential delay hypothesis: Different FPs in well-English correspond to different delay lengths. Attested

Differential conveyance hypothesis: Speakers intend not to convey their anticipation of a delay differentially. Tested

Future work could look at the gradience of other factors that may cause linguistic processing difficulties: e.g., articulation, (co)reference processing, syntactic or semantic effects.

Hypothesis: Gradient differences in discourse boundaries and following word status lead to major or minor repairs and hence greater or lesser choice of uh or um.

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References