

Disfluency in dialogue: An intentional signal from the speaker?

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Introduction

- ▶ Around six words in every one hundred are affected by disfluency (Fox Tree, 1995)
- ▶ Their occurrence is commonly associated with difficulties encountered in planning an utterance (cf. Oomen & Postma, 2001)
- ▶ Evidence suggests they may play a beneficial role in comprehension (e.g. Arnold, Tanenhaus, Altmann, & Fagnano, 2004)
- ▶ One influential claim has been that the fillers *uh* and *um* function as signals, each with distinct meanings (Clark & Fox Tree, 2002)

Are disfluencies intentionally produced by speakers, as a signal of ongoing difficulty, for the benefit of their listeners?

Aims

- ▶ Three questions are addressed:
 - ▶ Are speakers sensitive to the presence of an interlocutor?
 - ▶ Do disfluencies reflect difficulties in speech planning?
 - ▶ Does the presence of an interlocutor influence speakers' production of disfluency?

Experiment

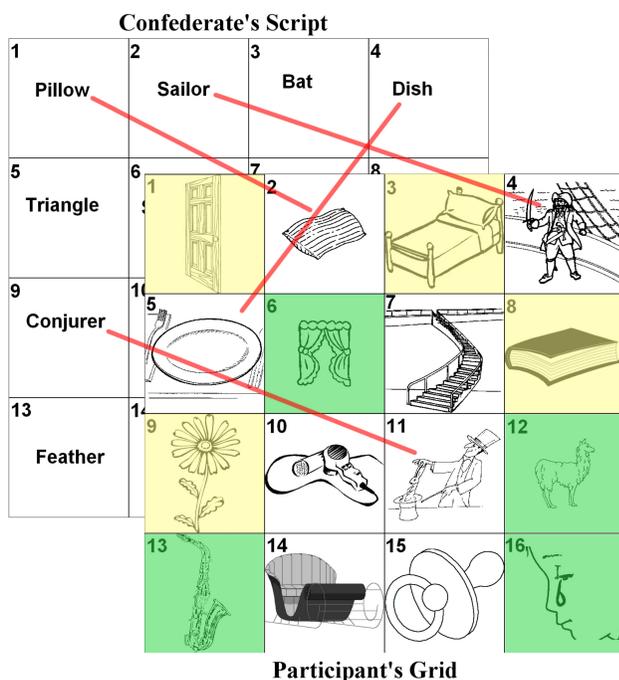
- ▶ 20 native British English speakers
- ▶ participants performed both:
 - ▶ a picture-naming task (monologue condition)
 - ▶ a picture-matching task (dialogue condition)

Materials

- ▶ four scripts, each referring to sixteen items, were prepared for a confederate of the experimenter:
 - ▶ eight "alignment" names referring to images shared by the participant
 - ▶ eight filler names
- ▶ four grids, each containing sixteen different images:
 - ▶ eight "alignment" images, corresponding to those in the confederate's script
 - ▶ four **easy to name** images (high frequency and high codability)
 - ▶ four **hard to name** images (low frequency and low codability)

Procedure

- ▶ Picture-naming task
 - ▶ participant instructed to name each image in two grids in sequence
- ▶ Picture-matching task
 - ▶ participant performed task with confederate
 - ▶ both took turns to name an image in their set
 - ▶ confederate was scripted to use either the preferred or dispreferred name for alignment images
 - ▶ alignment images were always named by confederate first

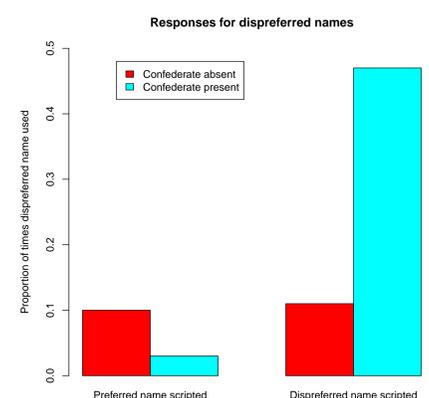


Coding and Analysis

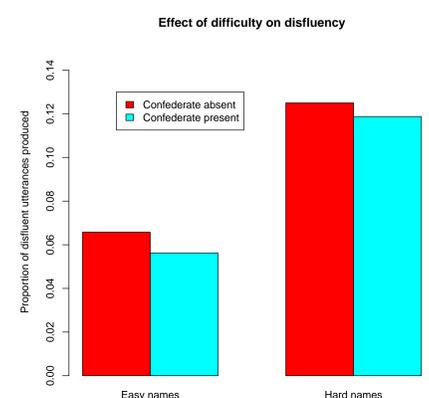
- ▶ Each description was transcribed and coded as either fluent or disfluent
- ▶ Descriptions were only rated disfluent if they contained forms of disfluencies which could likely be considered as signals:
 - ▶ *uh*
 - ▶ *um*
 - ▶ Prolongations (e.g. *the* pronounced *thee* rather than *thuh*)
 - ▶ Repairs
 - ▶ Repetition
- ▶ Analyses used Logit Mixed Effects Models

Results

Participants were more likely to use dispreferred name if confederate was present and had already used the name ($p < .001$)



Utterances containing harder image names were more than twice as likely to be disfluent than those containing easier ones ($p = .012$)



- ▶ Participants were 1.6 times more likely to refer to images disfluently per unit increase in H (high H → low codability; $p = .015$)
- ▶ However, as frequency and codability were highly correlated, the addition of log frequency did not improve the fit of the model ($p < 1$)

The presence of the confederate was not found to be having an effect upon production of disfluency ($p < 1$)

Conclusion

- ▶ Participants were sensitive to the presence of an interlocutor
 - ▶ More likely to use dispreferred names after hearing them used by the confederate
- ▶ Their rates of disfluency appeared to reflect difficulty with speech planning
 - ▶ More likely to be disfluent when names were harder
- ▶ However, participants did not appear to be producing disfluencies with the purpose of signalling difficulty to their interlocutor
 - ▶ Equally likely to be disfluent when an interlocutor was present, as when one was not

References

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