

Are there form-function pairings of filled pauses in German?

A multidimensional analysis

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Filled pauses (FPs) “interrupt the continuous flow of speech” (Lounsbury 1954). FPs are often studied from either the form or the function perspective. I will investigate here whether FPs are “learned pairings of form with semantic or discourse function” (Goldberg 2006, p. 5), hypothesising that functional differences are reflected in the phonetic properties of FPs.

The phonetic realisation, although being considered in some studies (cf. Shriberg & Lickley, 1993), is widely neglected. FPs can be generally described as having a vocalic-only or vocalic-nasal realisation (Leeuw, 2007). In German, FP forms such as [ə: ə:m ε: ε:m] can be observed, but other forms are found as well. I expect that a wide spectrum of variability (vowel quality, quantity, vocalic-nasal proportionality, modal vs. glottal phonation, vowel-initial glottal stop insertion) is available for marking specific uses of FPs.

Functions of FPs have been mainly studied in psycholinguistics, conversation analysis and corpus pragmatics. A challenge for functional studies on FPs is that, in most cases, speakers cannot explain why they have produced a FP, or are even unaware of their production. The link between FP form and a hypothetical function is *post hoc* established by researchers, linking FPs e.g. to turn-structure (Tottie, 2015), the production of lexical words (Maclay & Osgood, 1959) or conceptualizing (Schnadt & Corley, 2006). However, mere token-based analyses sometimes produce contradicting results. For example, in interviews, Cook (1971) finds that, in contradiction to Maclay and Osgood (1959), FPs are not more frequent before lexical words than before function words, implying the existence of confounding factors. Thus, I will conduct a multidimensional corpus-based study, taking into account various levels of segmental and dialogue structure.

In dialogues, questions, answers, and narrative sequences are means for asking for and conveying information to the interlocutor. In this study, I will make use of these clearly identifiable elements of dialogue structure as an objective *a priori* determination of possible functions. I combine a token-based multi-layer annotation of the phonetic properties of FPs with span annotations of dialogue structure, using the GECCO corpus (Schweitzer & Lewandowski, 2013), a corpus of task-free dialogues. Dialogue structure is annotated following the dialogue coding system of Carletta et al. (1997), coding questions (wh-questions or yes-no-questions), positive and negative answers to wh- or yes-no-questions as well as narrative sequences. Phonetically, segmentation, phonation, and segmental context are annotated. Figure 1 gives an example.

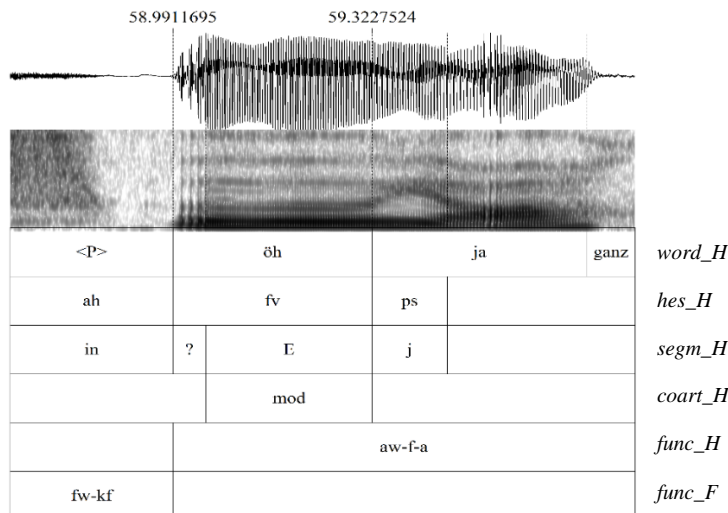


Figure 1: Phonetic and dialogue annotation of speaker H and dialogue annotation of speaker F in GECO with Praat. The FP here is annotated on hes_H with ah (breath antecedent), fv (vocalic filled pause), and ps (segmental postcedent). This is further specified in tier segm_H with in (ingressive breathing), ? (SAMPA adaption for maximal three glottal stops), E (placeholder for vowel quality), and j (first segment of the adjacent context). Modal phonation is marked in tier coart_H with mod. Speaker H replies to a wh-question, using a filled pause (tier func_H, tag aw-f-a). Speaker F has previously asked a wh-question without using a filled pause (tier func_F, tag fw-kf).

References

- Carletta, J., Isard, A., Isard, S., Kowtko, J., Doherty-Sneddon, G., & Anderson, A. H. (1997). The reliability of a dialogue structure coding scheme. *Computational Linguistics*, 23(1), 13–31.
- Cook, M. (1971). The incidence of filled pauses in relation to part of speech. *Language and Speech*, 14(2), 135–139.
- Goldberg, A. E. (2006). *Constructions at Work: The Nature of Generalization in Language*. New York: Oxford University Press.
- Leeuw, E. de. (2007). Hesitation Markers in English, German, and Dutch. *Journal of Germanic Linguistics*, 19(02), 85–114. <https://doi.org/10.1017/S1470542707000049>
- Lounsbury, F. G. (1954). Transitional Probability, Linguistic Structure, and Systems of Habit-family Hierarchies. In C. E. Osgood & T. A. Sebeok (Eds.), *Psycholinguistics. A survey of theory and research problems* (pp. 93–101). Baltimore: Waverly Press.
- Maclay, H., & Osgood, C. E. (1959). Hesitation Phenomena in Spontaneous English Speech. *Word*, 5, 19–44.
- Schnadt, M. J., & Corley, M. (2006). The Influence of Lexical, Conceptual and Planning Based Factors on Disfluency Production. In *Proceedings of the twenty-eighth meeting of the Cognitive Science Society* (pp. 750–755).
- Schweitzer, A., & Lewandowski, N. (2013). Convergence of Articulation Rate in Spontaneous Speech. In *Proceedings of Interspeech* (pp. 525–529).
- Shriberg, E. E., & Lickley, R. J. (1993). Intonation of clause-internal filled pauses. *Phonetica*, 50(3), 172–179.
- Tottie, G. (2015). Turn management and the fillers *uh* and *uhm*. In K. Aijmer & C. Rühlemann (Eds.), *Corpus Pragmatics. A Handbook* (pp. 381–407). Cambridge, U.K.: Cambridge University Press.