

Malte Belz

Research question 1: What is the vowel quality of filler particles in German?

Research question 2: Is it different from lexical vowels in similarly constructed syllables?

Background

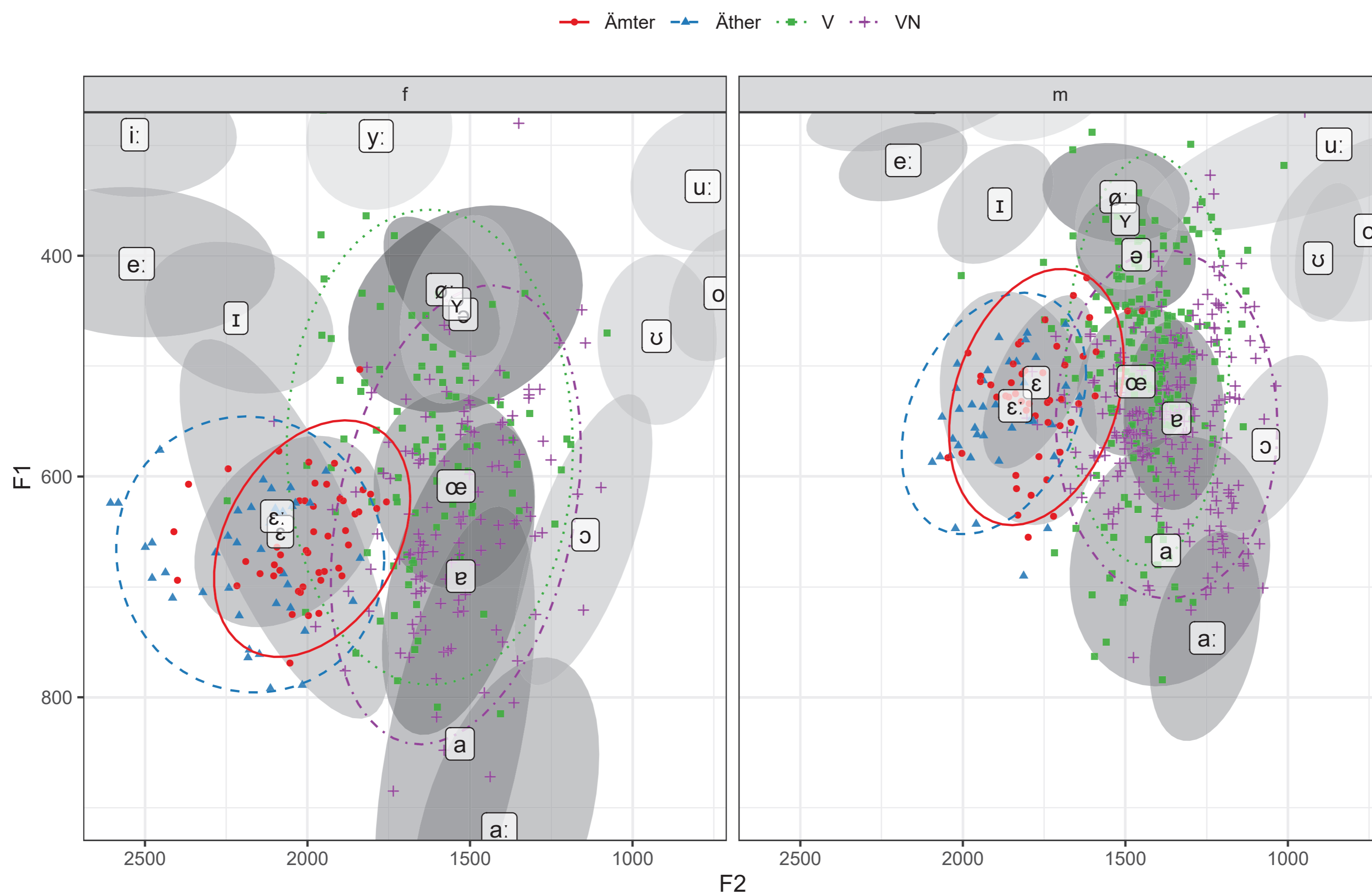
- Impressionistically, FP vowels in German can be represented as [e e: ε ε: æ ə ə: e e: œ œ: ø] (Batliner et al. 1995; Rasoloson 1994; Willkop 1988)
- Acoustically, FP vowels are close to [ə e œ ø: ʏ ʊ] (Klug 2013) (10 male speakers)
- FP vowels show vowel qualities close to the reduced lexical vowels /ə e/ (Pätzold and Simpson 1995) (two male speakers)

Method: Corpus-based study

Data:

- Berlin Dialogue Corpus v1 (Belz and Mooshammer 2020) plus 4 additional unpublished dialogues
 - 24 speakers, 12 males and 12 females
 - 12 dialogues, 15 min unacquainted subjects
 - Lead question: What is your experience with the university canteen?
 - Word lists with disyllabic words containing 15 monophthongs of German as first and either [ə] or [e] as second syllable
 - The words *Äther* ['ʔɛ:tɐ] ('ether') and *Ämter* ['ʔɛmtɐ] ('offices') have been included twice in the list, as their first syllables are similar to the /ε/-vowel assumed for *äh* and *ähm*.
- Annotation with Praat (Boersma 2001), corpus query with *emuR* v 1.1.1 (Winkelmann et al. 2018)

Results



Conclusion

Research answer 1: FPs in German are most closely represented by the symbolic forms [œ: œm e: em] (complete overlap), although FP vowels can in principle come from a relatively wide range in the central part of the vowel space.

Research answer 2: FP vowels in vocalic forms are produced significantly higher and further back in the vowel space than /ε: ε:/ in the lexically similarly constructed syllables of *Äther*/*Ämter* for both genders

Furthermore, VN forms are produced with a higher F1 and a lower F2, thus being located more down and back than V forms.

Discussion

The partial overlap between FP vowels and lexical syllables gives further evidence for the exceptional status of filler particles as non-lexical words

- FP vowels show more variance than lexical vowels and can be used more flexibly; this makes it easier for the articulatory system to produce them ad libidem in any position
- FP vowels in vocalic-nasal forms behave just in the same way on the anterior-posterior dimension as lexical vowels do in the same context (achieving an acoustic target), raising the question whether they are already planned in this way. Consequently, an *ähm* is not just a prolonged *äh*, but produced intentionally.

References

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