

On the prosodic marking of German rejections and rejecting questions

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Background

What we know about the **prosody of rejections**:

- Corrective focus is marked by greater duration, higher intensity, larger pitch excursions, relative to new information focus (Breen et al., 2010; Katz and Selkirk, 2011).
- Corrective focus is usually narrow: what about broad, VP focus in rejections?

What we know about **rejecting questions (RQs)**:

- Semantics: RQs are used to indicate that the speaker wishes to reject a proposition, but is unable to actually reject it.
- Prosody: Seeliger and Repp (2017) on Swedish – RQs exhibit ‘typical’ markers of questionhood (for Swedish), i.e. higher and late-aligned pitch peaks, relative to string-identical rejections.
- No studies so far on the prosody of German RQs

Research questions

- How is broad corrective focus realized prosodically in assertions vs. rejections vs. rejection questions?
- Do speakers consistently mark prosodic differences between utterance types that are already lexically disambiguated?

Materials: an example item

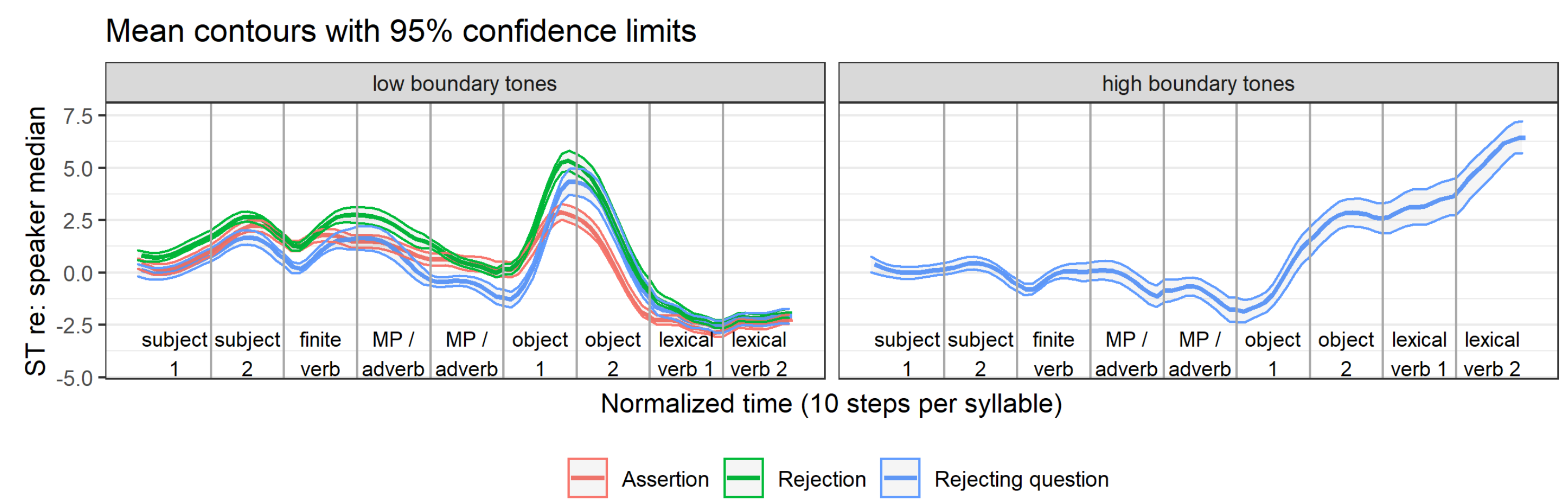
- (1) A: By the way, Jana told me on Monday that she will do an internship in the Black Forest this summer. She wants to learn more about all the forest animals from a hunter.
- B: Yes, she told me that, too. I wonder what the hunter will show her. The way I know her, she will want to try everything for herself, even the disjuncting of animals.
{*Assertion*: What do you think, Alex? She wants to shoot animals herself, right?
Rejection/RQ: But I don't think that she will shoot animals herself. That would be a bit much.}
- C: **Jana will da dann Rehe jagen.** Das hat sie mir
(*Assertion*) *Jana wants there then deer hunt.down that has she me gesagt.*
told
'Jana wants to hunt down deer there then. That's what she told me.'
- C': **Jana will doch dann Rehe jagen!** Hast du schon vergessen?
(*Rejection*) *Davon hat sie uns doch ganz begeistert erzählt!*
'Jana wants to hunt down deer then! Have you already forgotten? She told us about it all excitedly!'
- C'': **Jana will doch wohl Rehe jagen?!** Das lässt die sich doch
(*RQ*) *nicht entgehen! Oder etwa doch?*
'Surely Jana wants to hunt down deer?! She wouldn't miss that! Or would she?'

- 18 speakers (5 male); 12 items → 622 utterances

Modal particles and adverbs

- Note that the three utterance types are lexically disambiguated:
- Assertions in this study contained temporal and spatial adverbs (*then* and *there*).
- Rejections contained a temporal adverb (*then*) and the modal particle *doch* (indicating that the proposition should have been known to the addressee already).
- RQs contained the modal particle combination *doch wohl*, which non-compositionally marks the sentence as an RQ.
- Note that modal particles are generally said to be unaccentable.

Results: overview



- One categorical difference: 31% of RQs have high boundary tones; assertions and rejections always have low boundary tones.
- Individual differences: two participants produced (almost) exclusively rising RQs; five (almost) exclusively falling RQs; with most other participants showing a preference for falling RQs.
- Assertions have lower utterance-level pitch range.
- Mean pitch higher in rejections than in the other two, despite high boundary tones in RQs
- Higher pitch onset for rejections and generally higher pre-nuclear region
- RQs have lower pre-nuclear regions, even if the nuclear accent is (L+)H* instead of L*
- Expanded pitch range in connection with emotional arousal (cf. Bänziger and Scherer, 2005; Repp and Rosin, 2015)?
- More evidence for **non-final marking** of a questioning speech act (cf. Michalsky, 2017; Petrone and Niebuhr, 2014)

Results: acoustics

- Some hat patterns (stretching from the subject to the object) in assertions, none in the two rejecting speech acts
- VERUM FOCUS was rare, but two participants were fairly consistent in realizing it in the two rejecting speech acts
- Some accented modal particles in RQs: completely unexpected
 - ▶ Accented *wohl* arguably induces a non-RQ reading
- L+H* significantly more common in the rejecting utterance types
- Phonetic differences for objects in the rejecting utterance types (longer duration, higher F0 max)
- Subjects are shorter in duration in both rejecting utterance types than in assertions.
 - ▶ Higher speech rate on non-controversial material?
 - ▶ Influence of hat patterns in assertions?

Conclusion

- Assertions, rejections and RQs differ not only lexically but also in their prosodic realization.
- With these three utterance types, their speech act is marked redundantly and on different levels of grammar.
- The speech act differences between assertions and the rejecting speech acts also impact the prosodic characteristics of focus marking.

References

- Bänziger, Tanja and Klaus R. Scherer (2005). "The role of intonation in emotional expressions." In: *Speech Communication* 46, pp. 252–267.
- Breen, Mara, Evelina Fedorenko, Michael Wagner, and Edward Gibson (2010). "Acoustic correlates of information structure." In: *Language and Cognitive Processes* 25.7-9, pp. 1044–1098.
- Katz, Jonah and Elisabeth Selkirk (2011). "Contrastive focus vs. discourse-new: Evidence from phonetic prominence in English." In: *Language* 87.4, pp. 771–816.
- Michalsky, Jan (2017). *Frageintonation im Deutschen. Zur intonatorischen Markierung von Interrogativität und Fragehaltigkeit*. Berlin, New York: de Gruyter.
- Petrone, Caterina and Oliver Niebuhr (2014). "On the Intonation of German Intonation Questions: The Role of the Prenuclear Region." In: *Language and Speech* 57.1, pp. 108–146.
- Repp, Sophie and Lena Rosin (2015). "The intonation of echo wh-questions." In: *Proceedings of INTERSPEECH 2015*. Ed. by Sebastian Möller, Hermann Ney, Bernd Möbius, Elmar Nöth, and Stefan Steidl.
- Seeliger, Heiko and Sophie Repp (2017). "On the intonation of Swedish rejections and rejecting questions." In: *Proceedings of Nordic Prosody XII*. Ed. by Jardar Eggesbø Abrahamsen, Wim A. van Dommelen, and Jacques Koreman. Frankfurt: Peter Lang, pp. 135–146.