

# Weighting the effects of prosodic, semantic-pragmatic and syntactic cues on the perception of prominence in German



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**Background:** Beside **prosody**, **lexical factors** (e.g., word frequency, part-of-speech) have been found to play a role for the **perception of prominence** in previous studies (e.g., [1, 2]). However, these studies did not consider **discourse context**. We plan on addressing this gap by including discourse meaning, i.e., **lexical** and **referential information status (IS)**, and syntactic factors, i.e., **grammatical role** and **sentence position**.

## Methods

### Stimuli:

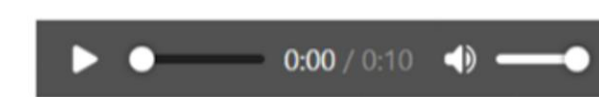
- 47 excerpts from 8 stories, produced by 8 speakers [3]
- Common **nouns** of similar **word frequency**
- Vary in **lexical & referential IS**, **sentence position** & **grammatical role**
- Diverse prosodic realizations in terms of **accent status** and **type**

### Participants:

- 65 German native listeners:
  - 25 f, 39 m, 1 nb
  - 17-71 years old, mean = 32

How highlighted does the underlined word in the last sentence of the following story sound?

The ballad was the highlight of the musical. Max used to be in a theater group and even took part in a musical himself. As part of it, Max performed a ballad.

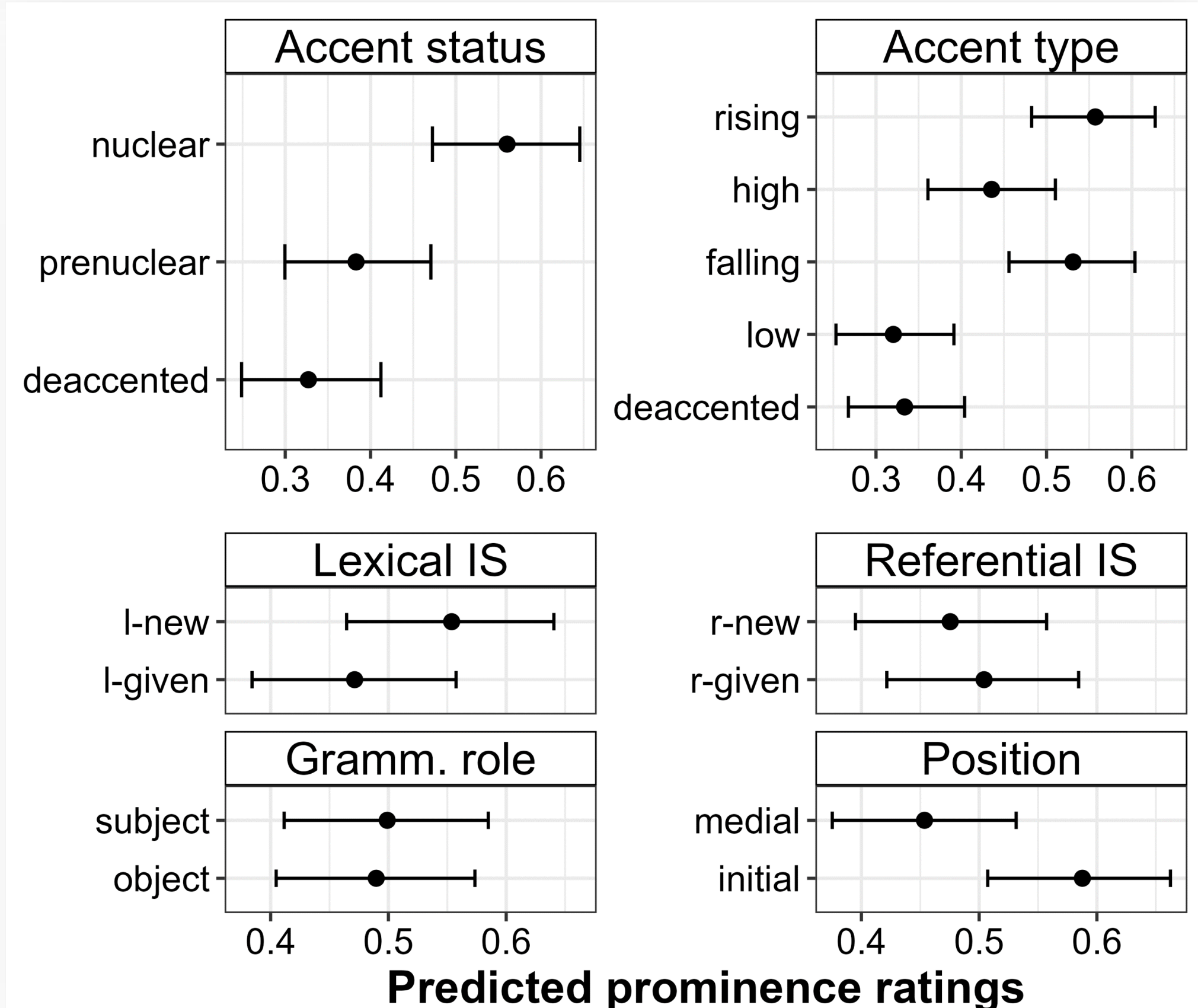
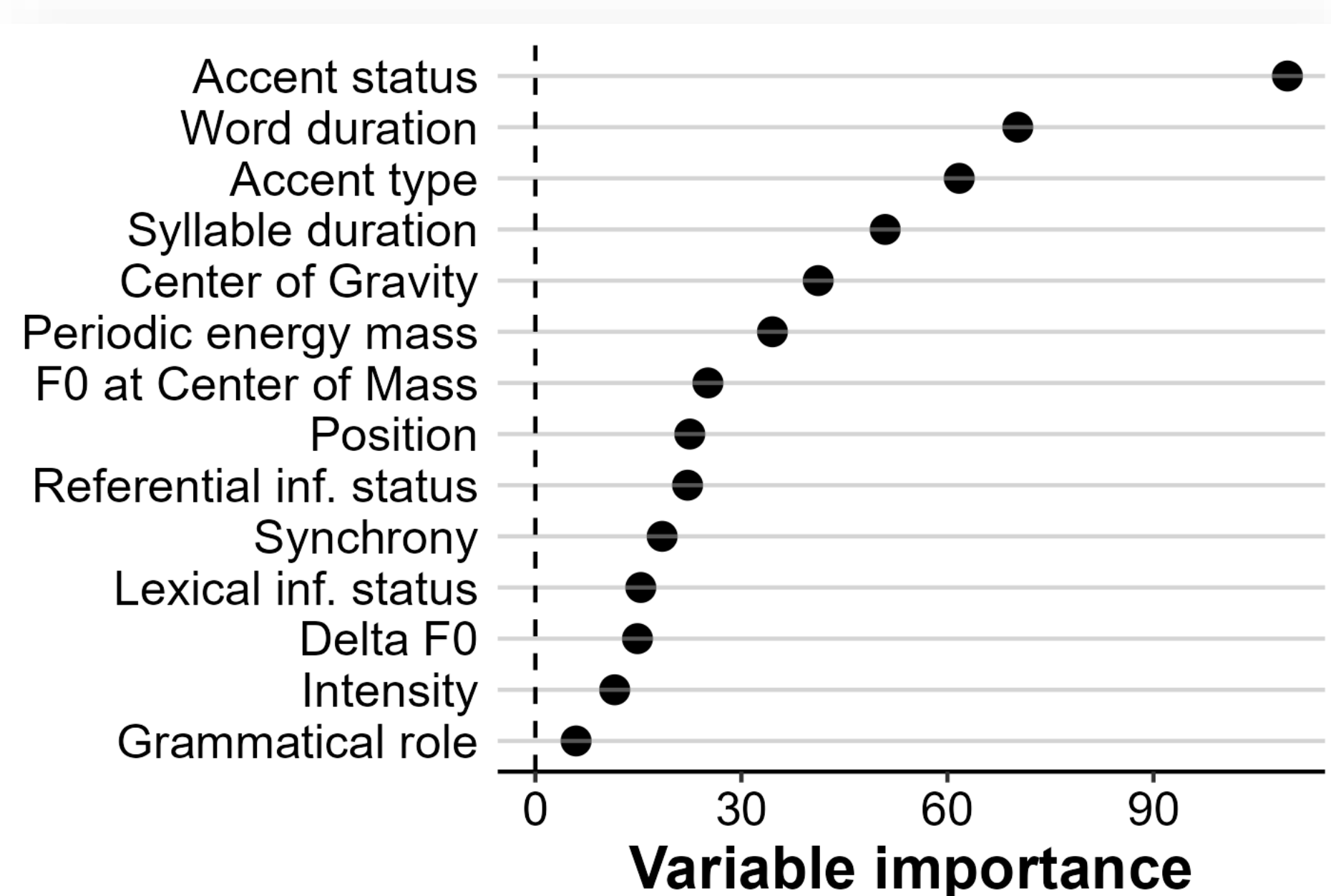


The underlined word sounds...

not at all highlighted ————— very strongly highlighted

<https://www.soscisurvey.de/>

**Results:** Accent status predicts prominence, information status lends little.



## Conclusions

**Categorical prosodic cues** and **duration** are the strongest predictors of prominence ratings [1, 2].

**Task instructions** could have drawn participants' focus to the prosody rather than the meaning [4].

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**References:** [1] Baumann, S. & B. Winter. 2018. What makes a word prominent? Predicting untrained German listeners' perceptual judgments. *J. Phon.* 70, 20–38. [2] Wagner, P., A. Ćwiek & B. Samlowski. 2019. Exploiting the speech-gesture link to capture fine-grained prosodic prominence impressions and listening strategies. *J. Phon.* 76, 100911. [3] Baumann, S. & J. Lorenzen. 2024. Boosting or inhibiting - How semantic-pragmatic and syntactic cues affect prosodic prominence relations in German. *PLoS ONE* 19(4), e0299746. [4] Cole, J., J. Hualde, C. Smith, C. Eager, T. Mahrt & R. Napoleão de Souza. 2019. Sound, structure and meaning: The bases of prominence ratings in English, French and Spanish. *J. Phon.* 75, 113-147.