

The syntax and prosody associated with German gender gaps

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Gender-bias and morphology

Grammatical gender can be used to counter gender bias

Is there a doctor on board?

- Across languages/cultures, there is gender bias when interpreting descriptions (Misersky et al. (2014), Belle et al. (2021))
- Grammatical gender can counter bias by making feminine description visible:

*Ist **ein Arzt** (masc.. doctor) oder **eine Ärztin** (fem. doctor) an Bord?*

Grammatical gender can exacerbate gender bias

- 'Generic' use of masculine in gender languages may increase gender bias:
 - Irmen and Roßberg (2006): Greater reading time cost when female pronoun is used after description with masculine form in German, compared to English
 - Gygax et al. (2008): in English, gender bias depends on stereotypicality of role names, in French and German, bias was observed whenever masculine gender is used

(see Malsburg, Poppels, and Levy (2020) for effects in English)

Gender-inclusive language in German

Proposes to either use forms that make multiple gender visible, or use gender ambiguous forms

Objections include:

- doubts whether effects justify the effort
- worries about ideological implications
- worries about readability
- worries whether making gender visible is counterproductive (cf. arguments against gendered job descriptions like 'actress' in English)
- **Relevant here: worries about whether some gender-inclusive strategies violate basic principles of grammar**

German 'Gender gap'

Gender gaps are shorthands (‘Sparform’)

They aim to convey both masculine and feminine gender. Orthographic variations:

- LeserIn (‘reader/(fem)’)
- Leser*in
- Leser_in
- Leser/in
- Leser:in

Recommended pronunciation: **Glottal stop before suffix**

(e.g., by Luise F. Pusch, in interview: Olderdisen (2020))

Eisenberg's criticism

Eisenberg (2021):

- **Gender gap means nothing:** Forms encoded with the gender gap are unambiguously feminine, and hence not in fact inclusive
- **Recommended pronunciation is illicit:** Realizing the gap before '-in' with a glottal stop, as is sometimes reported or even recommended, causes stress to shift to the suffix, but neither stress nor glottal stop on a suffix are compatible with German morphophonology

Gender gaps involve coordination

Gender-gap is a form of coordination

- Asyndetic coordination (in English often pronounced with 'slash'):
Leser/Leserin
- gender gap: asyndetic coordination with stem deletion: Leser*in = Leser/~~Leser~~in ('reader-masc/reader-fem')
- '-in' is a conjunct
- This explains the pronunciation with glottal stop and stress (conjuncts must be prosodic words: Booij (1985))

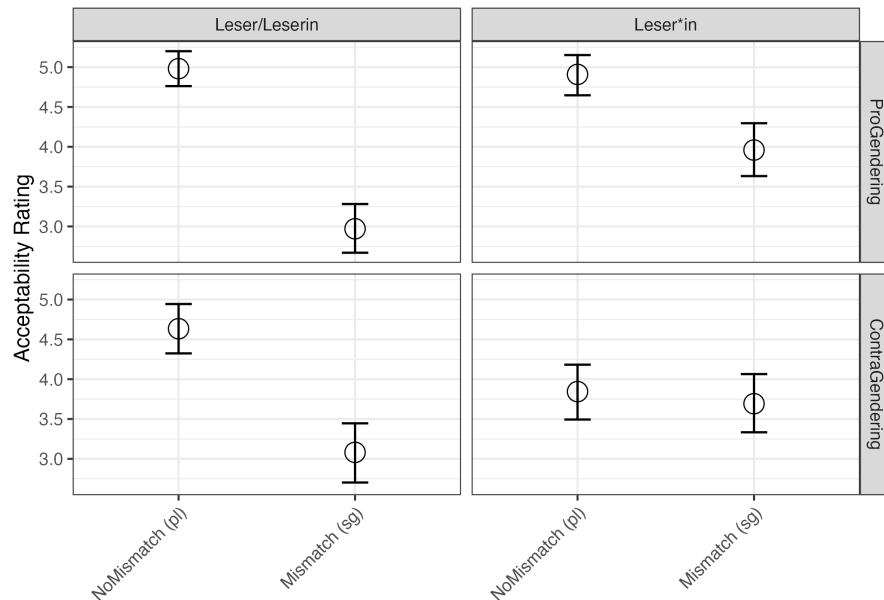
Do gender gaps really involve coordination?

- True coordination shows determiner-matching effects
- Experiment 1: Determiner-matching effects in gender gaps?
 - Coordinate analysis predict mismatch effects
 - Eisenberg predicts no mismatch effects since forms unambiguously feminine'

***Die Antragsteller*in...** 'the applicant-masc/fem'

*See appendix for illustration of determiner mismatch effects coordination
illustration of stimuli!*

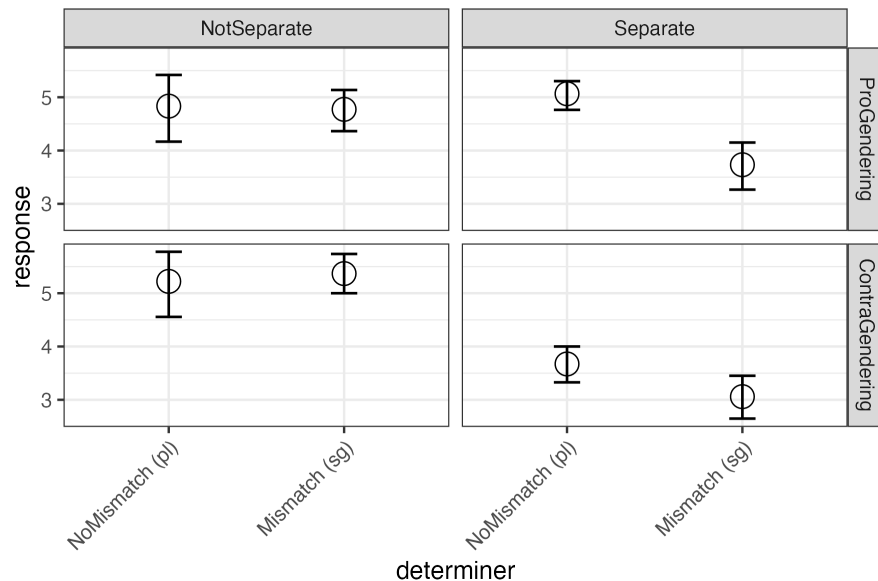
Experimental results: Production study with naturalness rating



- On Left: Mismatch effect in asyndetic coordination
- On Right: **Mismatch effect with gender gap! (but smaller)**
- ...but not among participants negative about gendering

Rating by prosody

Rating depending on prosody:

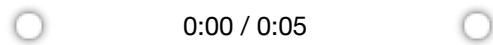


Mismatch effect when suffix received separate prosody (i.e., prosody revealing that it is a conjunct)

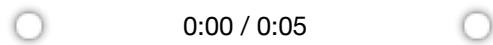
Pronunciation of Gender-gaps

Some realization variants:

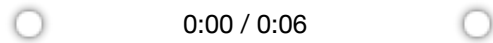
- Stress on suffix, Glottal stop, sometimes with stem-final glottalization (46%):



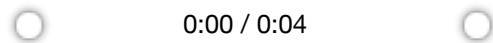
- Stress on suffix, stem-final consonant as onset (13%):



- Stress on suffix, no glottal stop (20%):



- No stress on suffix, Failure to syllabify across (2%):



Conclusion

- Eisenberg: gaps unambiguously encode feminine form
 - **No! gender gaps encode coordinate structures of feminine and masculine forms**
- Eisenberg: glottal stops and stress on suffixes violate German grammar
 - **No! Gender gap forces 'in' to be a coordinate and hence a prosodic word, and prosodic words get stress and tend to start a glottal stop**

(Experiment 2 (Appendix): gender-gap pronunciation not specific to -in, but also naturally emerges with non-gender suffixes)

Conclusion

- Gender gaps are compatible German grammar
- They convey reduced coordinate structures
- Their pronunciation reflects general phonological constraints on the pronunciation of coordination
- Deciding to use gender gaps does not change German grammar, it changes German usage

Limitations

- Limitations of this study:
 - Further phonetic analysis necessary
 - We don't know which speakers would (or have) ever pronounced gender gap in daily use. Dialogue experiment (as opposed to reading) might be more revealing
- Questions not addressed here:
 - Other/alternative strategies to make German gender-inclusive
 - Non-linguistic worries about using gender to counter bias as mentioned above
 - Can gender gaps convey more than one gender?
 - ...

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Thanks!

Appendix

Determiner-matching effects in coordination

- Coordination below determiner is possible:
 - (3) In the plural, masculine and feminine nominative determiners are syncretic:
 - a. Plural: Coordination above determiner:
Die Leser oder die Leserinnen haben...
the-pl readers-masc-pl or the-pl readers-fem-pl have...
 - b. Plural Coordination below determiner possible: **No Mismatch**
Die Leser oder Leserinnen haben...
the-pl reader-masc-pl or reader-fem-pl have...
- ... but only if shape of determiner identical in both forms:
 - (2) In the singular, masculine and feminine nominative determiners mismatch:
 - a. Singular: Coordination above determiner possible
Der Leser oder die Leserin hat...
the-masc reader-masc or the-fem reader-fem has
 - b. Singular: Coordination below determiner impossible: **Mismatch**
* Die Leser oder Leserin hat ...
the-fem reader-masc or reader-fem has...

Matching effects in Gender gaps?

Prediction Experiment 1:

- Gender gap should be possible in plural, just as in asyndetic coordination:

(5) Plural reduced and unreduced cases: No Mismatch effect expected

- a. Die Antragsteller*innen können jeweils nur einen Antrag stellen.
The-pl applicant-masc-pl/fem-pl can respectively only one application submit
- b. Die Antragsteller/Antragstellerinnen können jeweils nur einen Antrag stellen.
The-pl applicant-masc-pl/applicant-fem-pl can respectively only one application submit

- ...but impossible in singular, just as in asyndetic coordination:

(4) Singular reduced and unreduced cases: Mismatch effect expected

- a. *Die Antragsteller*in kann jeweils nur einen Antrag stellen.
The-fem applicant-masc/-fem can respectively only one application submit
- b. *Die Antragsteller/Antragstellerin kann jeweils nur einen Antrag stellen.
The-fem applicant-masc/applicant-fem can respectively only one application submit

Eisenberg predicts (4a) to be acceptable since gender gap is unambiguously feminine

Stem deletion with other suffixes

Stem deletion can also be observed with other suffixes

Wer treu(-los) ist stell sich oft erst im nachhinein heraus.) ('Who is loyal/disloyal often only emerges after the fact.')

But only in *asyndetic* coordination (just as with gender gap):

***Wer treu oder (-los) ist stell sich oft erst im nachhinein heraus.)** ('Who is loyal/disloyal often only emerges after the fact.')

Experiment 2: Other suffixes

Morgen findet ein Vortrag über Islam(-ismus) statt.

Tomorrow there will be a talk about islam/ism.

- Short-form 'Islam(-ismus)' when used is often used in contexts in which someone tries to equate the religion islam with extremism (e.g. in rightwing blogs)
- When spoken, often worded out as full coordination
- But it is when pronounced as short-form, then it is pronounced like gender gap:



0:00 / 0:06



- This is unexpected if gender-gap pronunciation is due to prescriptive gender-activism, but expected if it is a natural way to realize a reduced coordinate structure
- It could be that this pronunciation originates as a strategy to realize orthographic 'sparform' with prosodic means, but seems to be natural solution that speakers produced when they don't word out coordination

References

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