

Fine-semantic differences lead to fine-phonetic variation: Word-final /ɐ/ in generic and specific masculines in German

Dominic Schmitz

Heinrich Heine University Düsseldorf, Germany

47. Jahrestagung der Deutschen Gesellschaft für Sprachwissenschaft
AG 4: Morphological Variation

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- homophonous forms show differences in their phonetic realisation
- but what about another type of lexical ambiguity: polysemy?

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'Tim is a teacher by profession.'

*Anna ist **Lehrer** von Beruf.*

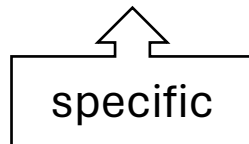
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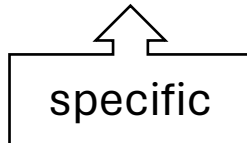
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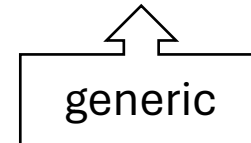
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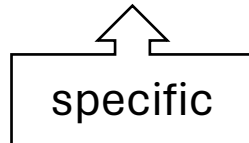


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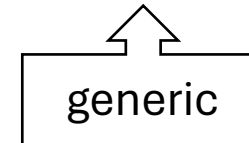
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- we may assume that specific and generic masculines are senses of a polyseme, as studies have demonstrated that their meanings are closely related but not identical (e.g. Schmitz, 2024)

Research Question

Does the semantic difference between **specific** and **generic** masculines lead to subphonemic durational differences?

Experiment: Reading Task

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stereotypically female (Misersky et al., 2014)

<i>Balletttänzer</i> 'ballet dancer'	<i>Eiskunstläufer</i> 'ice skater'	<i>Flugbegleiter</i> 'flight attendant'	<i>Geburtshelfer</i> 'obstetrician'	<i>Haushälter</i> 'housekeeper'
<i>Hellseher</i> 'clairvoyant'	<i>Kosmetiker</i> 'beautician'	<i>Pfleger</i> 'carer'	<i>Schneider</i> 'tailor'	<i>Verkäufer</i> 'salesperson'

stereotypically male

<i>Bauarbeiter</i> 'construction worker'	<i>Elektriker</i> 'electrician'	<i>Fußballspieler</i> 'football player'	<i>Kranführer</i> 'crane operator'	<i>Maurer</i> 'mason'
<i>Programmierer</i> 'programmer'	<i>Rennfahrer</i> 'race driver'	<i>Reporter</i> 'reporter'	<i>Schreiner</i> 'carpenter'	<i>Wahrsager</i> 'fortuneteller'

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- **fillers**
 - feminine forms of target items, e.g. *Balletttänzerin*, *Bauarbeiterin*
 - used with female referents only

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generic,

Mein Kind kann richtig gut nähen. **Es** ist **Schneider** von Beruf.

gender unspecified

‘**My child** is really good at sewing. **It** is a **tailor** by profession.’

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‘**My child** is really good at sewing. **It** is a **tailor** by profession.’

generic,

***Marias Mutter** kann richtig gut nähen. **Sie** ist **Schneider** von Beruf.*

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‘**Maria's mother** is really good at sewing. **She** is a **tailor** by profession.’

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- per list:

		type	number
15	5	SM	singular
	5	GM, unspec.	
	5	GM, spec.	
15	5	SM	plural
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- pseudo-randomised: trials with the same item did not directly follow each other

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Procedure

- 1 set of context and target phrase/sentence per trial
- instructions: read quietly before reading aloud
- self-paced

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- extraction of durational information via rPraat (Bořil & Skarnitzl, 2016) in R (R Core Team, 2024) ($n = 1113$)

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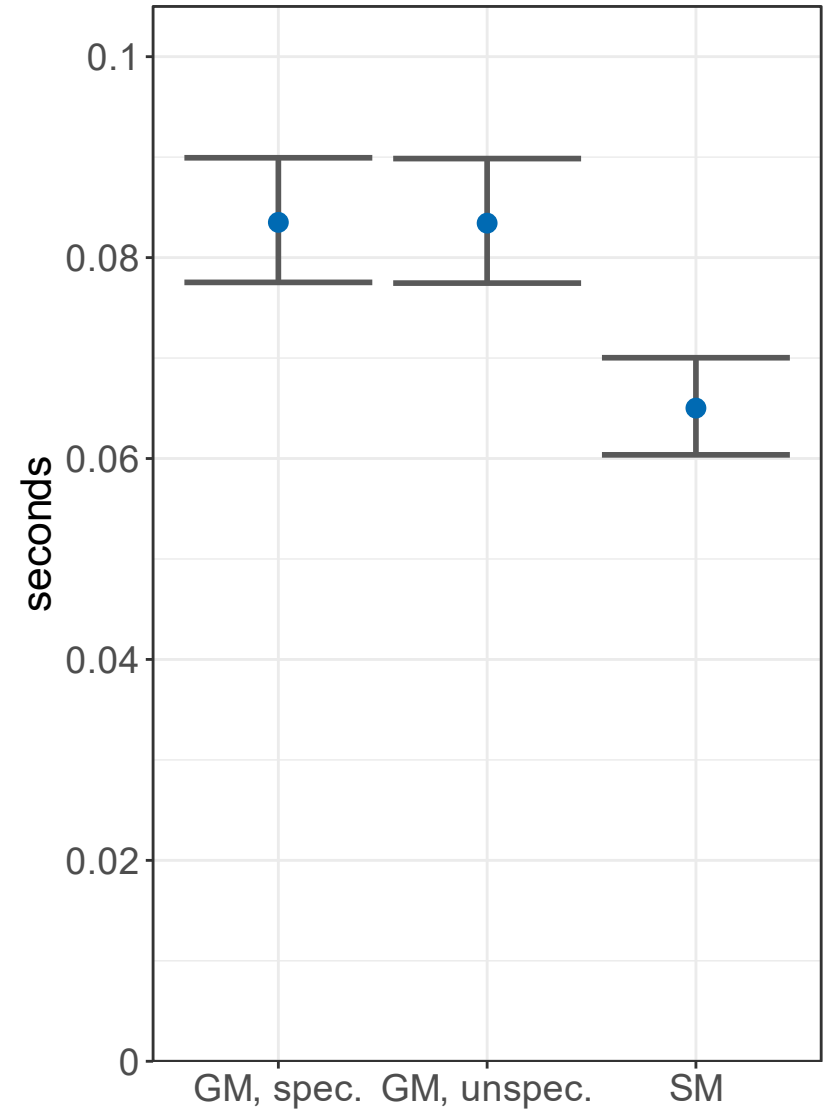
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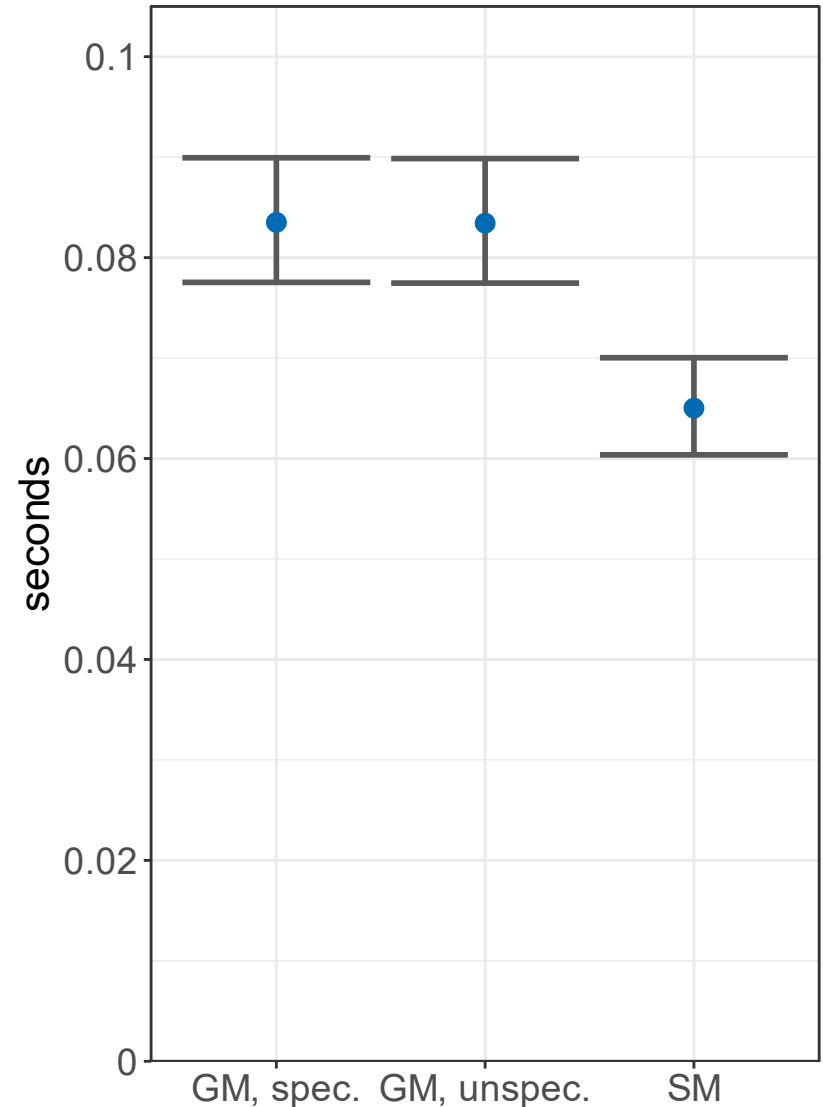


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- the effect size is large with $\eta^2 = 0.2$, with 95% CI of [0.48, 1.00]



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Extra

Which semantic features of generic and specific masculines lead to this difference?

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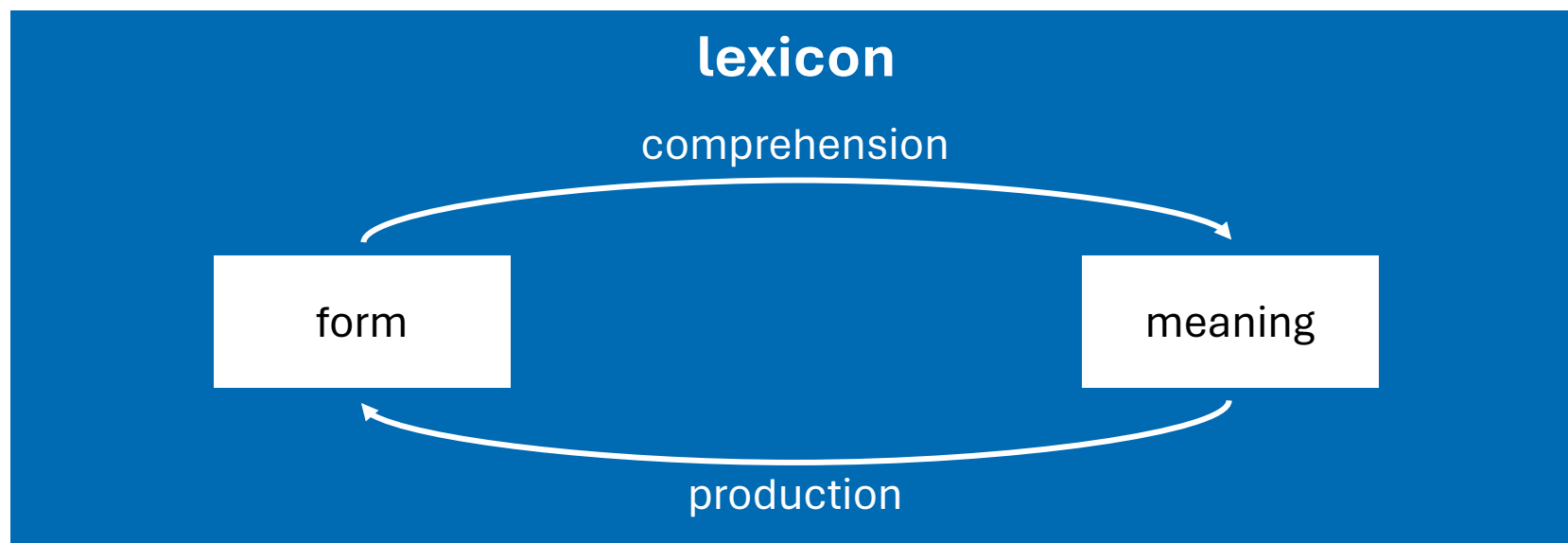
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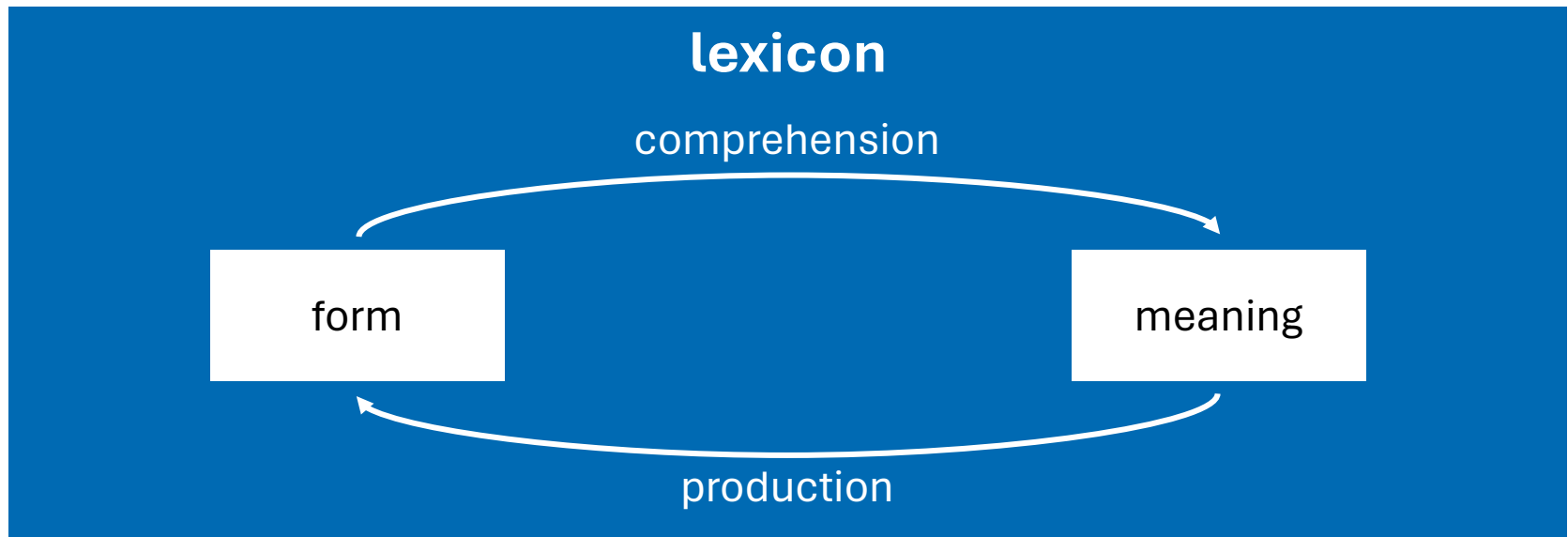
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 - c) to gain more detailed insight into the semantic features of generic masculines and specific masculines



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- overall, 11745 word-forms

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- mapping from forms to meanings to simulate the comprehension process

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degree of **polysemy**

→ Shannon entropy of the predicted semantic vector

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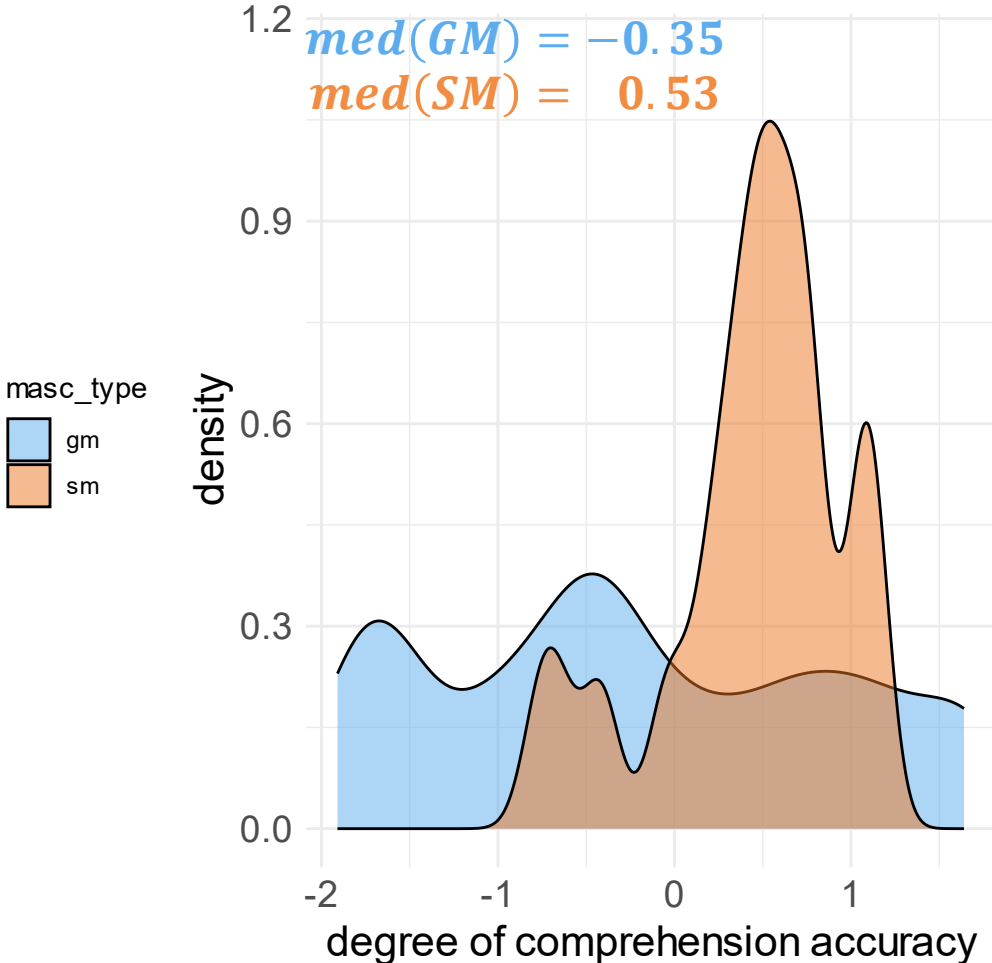
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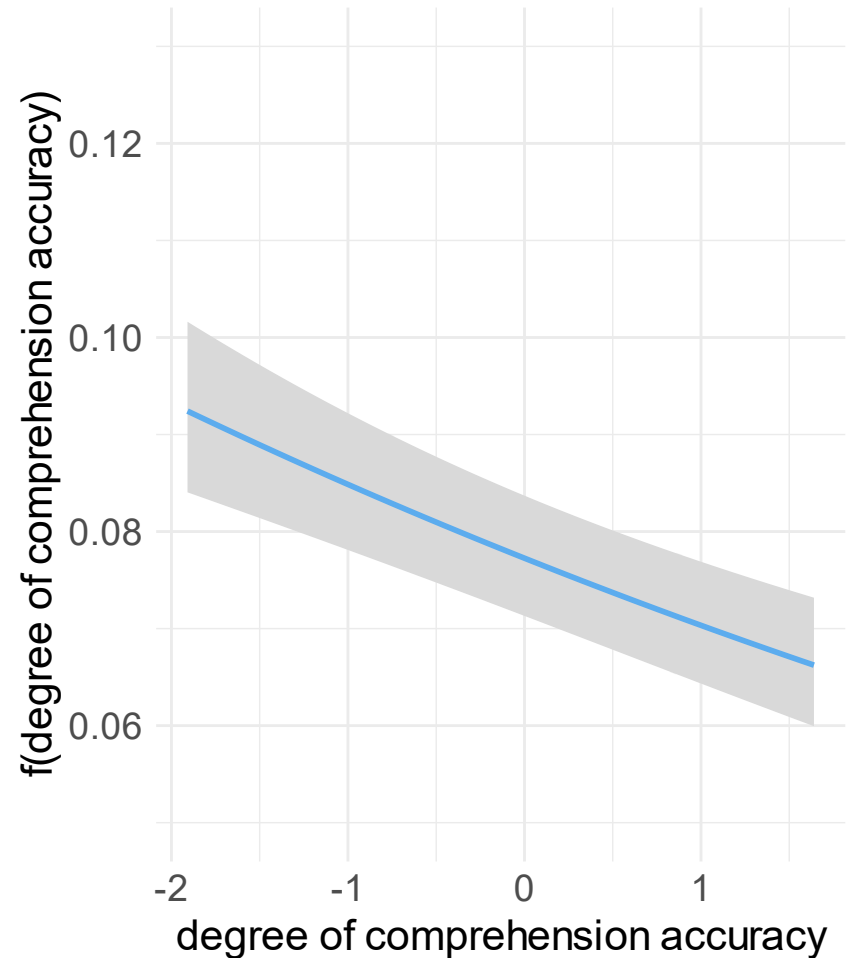
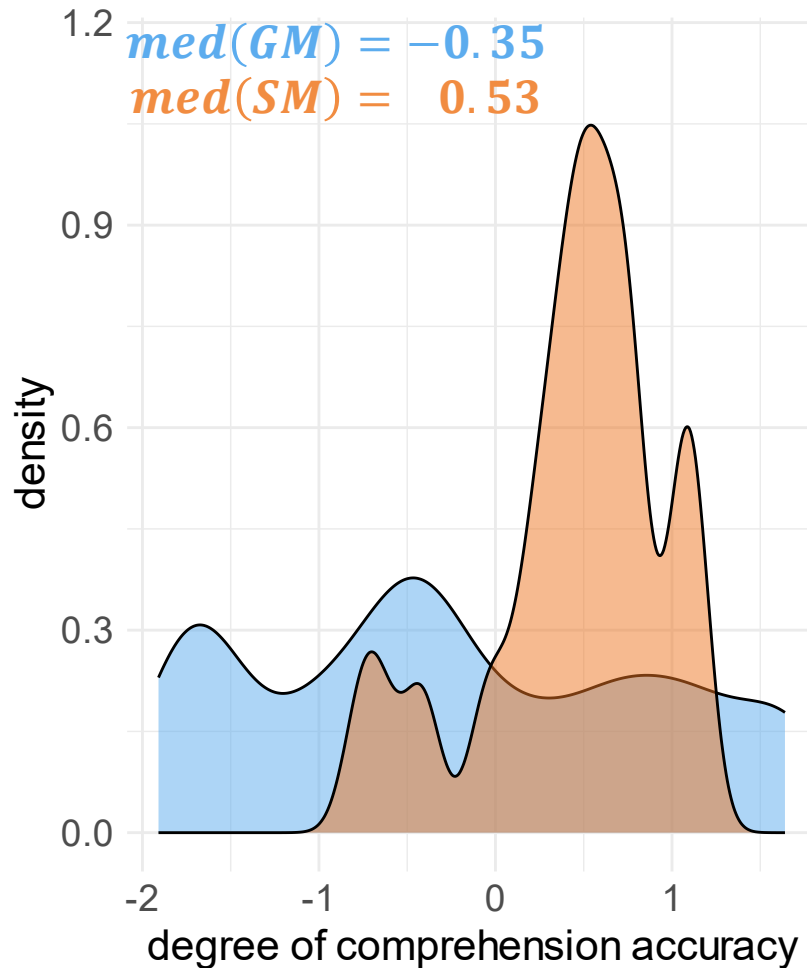
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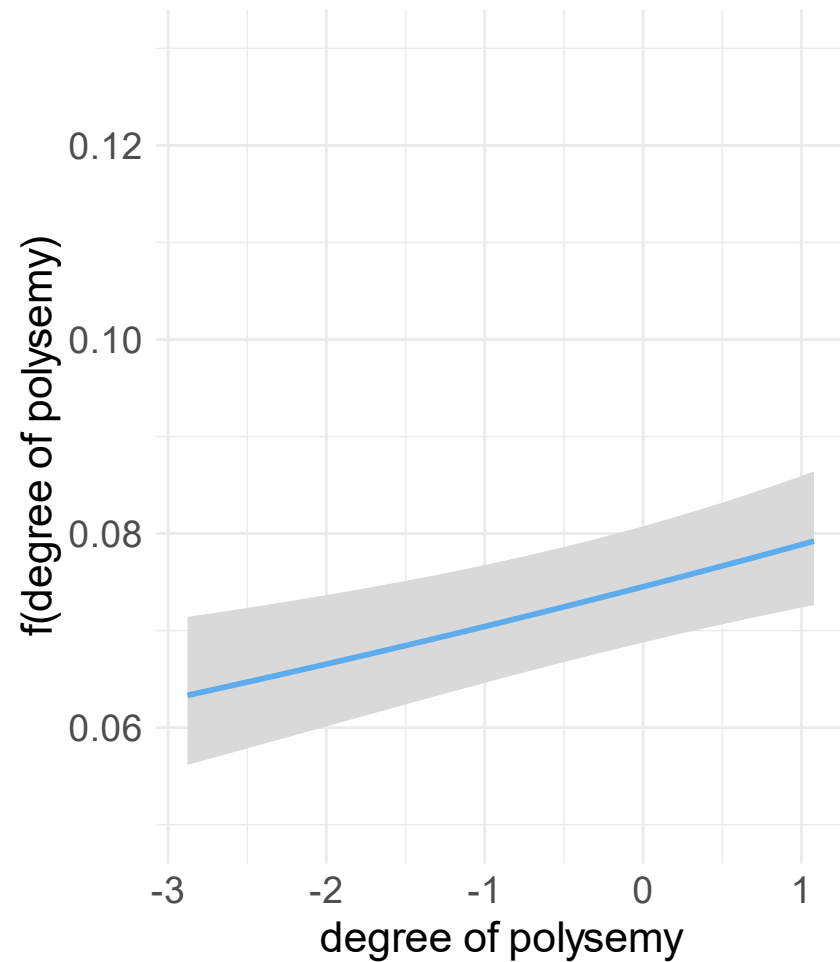
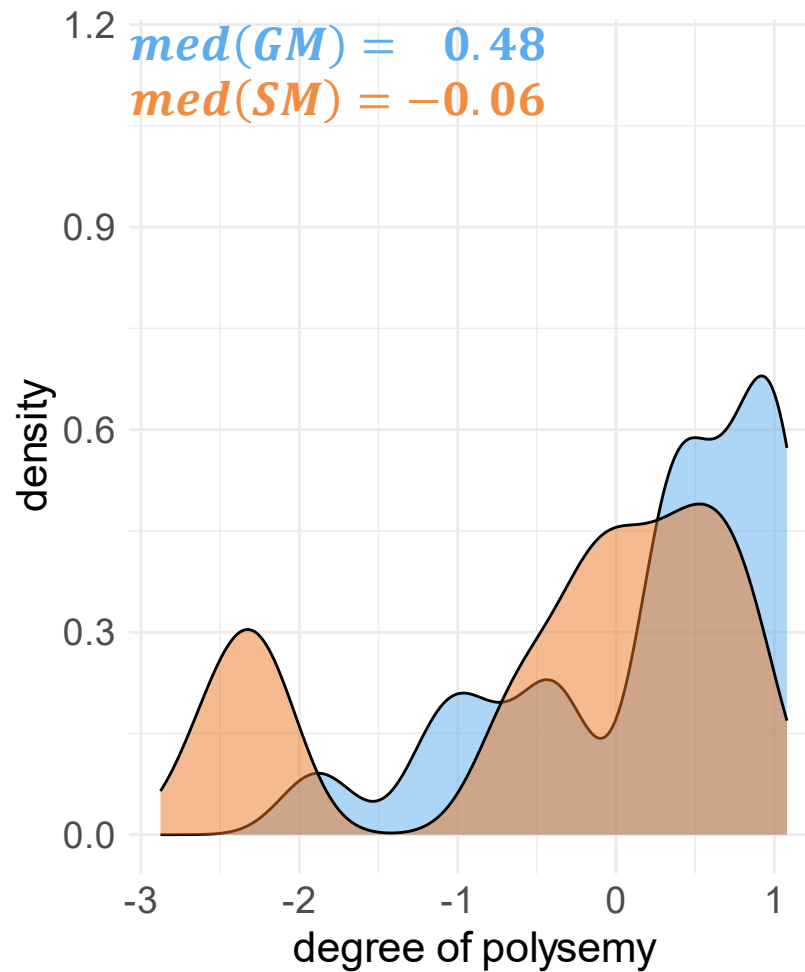
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- factors that do not explain this difference in the present data are
 - stereotypicality
 - attitude towards the generic masculine
- factors that explain this difference are
 - specific masculines are better comprehended than generic masculines
 - specific masculines are less polysemous than generic masculines

Discussion

- the semantic difference between specific and generic masculines comes with a durational difference of the *-er* suffix
 - factors that do not explain this difference in the present data are
 - stereotypicality
 - attitude towards the generic masculine
 - factors that explain this difference are
 - specific masculines are better comprehended than generic masculines
 - specific masculines are less polysemous than generic masculines
- in line with the idea by Schmitz (2024) that generic masculines come with a higher comprehension effort as they may refer to a wider variety of referents

THANK YOU!

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