Polysemes have no common sense duration

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Previous research found fine-phonetic durational variation between homophonous units, for example, in different types of word-final /s/ (Schmitz et al. 2021). Schmitz (forthcoming) showed that fine-phonetic durational differences may also be conditioned by polysemy. In a reading task on German, Schmitz compared the duration of the -er suffix in masculine role nouns referring to men, i.e. specific masculines, to the duration of the same suffix in masculine role nouns referring to women or individuals of undisclosed gender, i.e. generic masculines. The results showed that the duration of -er is significantly longer in generic masculines than in specific masculines.

The present research addresses two concerns found with Schmitz (forthcoming). First, the experimental paradigm: a reading task. That is, the durational differences found may very well be artefacts of reading and, with that, not conditioned by sense-specific features. Second, the nature of the target items. Real word targets may co-occur with female or male referents more often, may be loaded by certain gender stereotypes, or come with other features influencing acoustic durations when read in contexts (cf. Caselli et al. 2016). To circumvent these issues, we conducted two experiments: (1) a recall task with real words, (2) a recall task with pseudowords.

In experiment (1), 20 real word items were produced by 210 native speakers of German. Targets were embedded within contexts, which were preceded by sentences introducing a referent, and followed by a question (cf. Figure 1). Subjects were asked to recall the information of the context sentence and produce it aloud. Experiment (2) proceeds similarly but uses pseudowords as targets and two additional context sentences to familiarise the subjects with the target (cf. Figure 2). At the time of abstract submission, experiment (2) is still running. We will refrain from providing preliminary findings as not to bias the final analyses.

The data of experiment (1) were analysed using linear mixed-effects regression models. The effect of *sense* shows that generic masculines come with significantly longer -er durations than specific masculines (p < 0.001, $\eta^2 = 0.32$).

Experiment (1) showed that in recalled speech, generic and gender-specific masculines come with significantly different -er durations, with the suffix being longer in the generic sense. Since this pattern occurs across paradigms, it cannot be attributed to reading or recall alone. The results of experiment (2) will show whether this effect is based on features of real words. If so, this would warrant further investigation into which specific features cause senses to differ in their fine-phonetic durations.

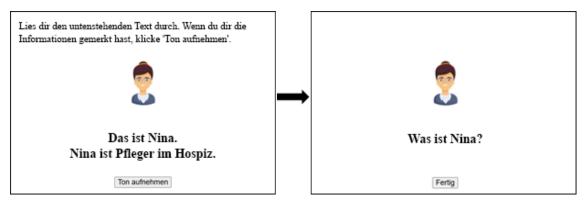


Figure 1: The left screen introduces Nina and provides information on her ('This is Nina. Nina is a nurse at the hospice.'); the right screen asks about the given information ('Nina is what?').

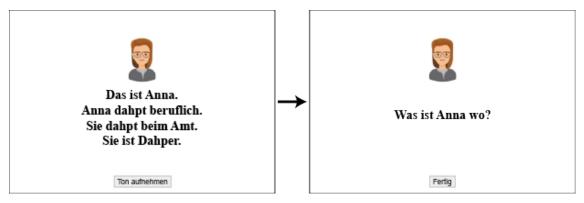


Figure 2: The left screen introduces Anna and provides information on her ('This is Anna. She dahps professionally. She dahps for the department. She is a dahper.'); the right screen asks about the given information ('Anna is what where?').

Literatur

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