Does the asterisk in gender-fair word forms in German impede readability? Evidence from a lexical decision task

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In the German language all nouns carry grammatical gender which for person denoting nouns often coincides with the referent's sex (e.g., *der Reporter* (masc.) vs. *die Reporterin* (fem.) - the reporter). When a person's sex is irrelevant or unknown, the default is to use the masculine noun in a generic sense. Gender-fair language, for instance the use of both feminine and masculine forms (e.g., *Reporterinnen und Reporter*), increases the representation of women (Gygax et al., 2021). Critics often question its readability, despite little impact on explicit measures of comprehensibility (Friedrich & Heise, 2019). In addition, (sexist) attitudes influence the degree to which people favor gender-fair language (Sarrasin et al., 2012).

Recently, post-feminist critics suggest the use of the gender star form to refer to people of all gender identities. Gender star forms are characterized by including an asterisk between the masculine word stem and the feminine suffix "-in" (e.g., *Reporter*in*). The readability of this rather recent form has not been studied yet. Since the asterisk is not a grapheme in German orthography, the Dual-Route-Cascade model (Coltheart et al., 2001), would predict increased processing difficulties for either route. The change of the word form interrupts the direct, lexical route, while the sublexical route needs to map the still unfamiliar asterisk to a glottal stop.

To test whether the use of the gender star impedes direct lexical access compared to masculine and feminine forms, we used a lexical decision task as a measure of visual word recognition. 103 German speakers (age: *M*= 21.6, *sd*= 4.9) participated in an online-Experiment. 120 words and 120 pseudowords were presented. 72 role nouns with a large range of gender stereotypicality (Misersky et al., 2014) appeared in one of the three gender forms (24 trials per condition, counterbalanced across participants). The filler items included words with unusual orthography and special characters. After the lexical decision task, the participants completed questionnaires on their explicit attitudes towards gender-fair language use and on ambivalent sexism towards women and men (Eckes & Six-Materna, 1999).

The results were analyzed using logistic regression and linear mixed models (lmer4 package in R), controlling for word length and including gender form and the position of each item during the course of the experiment as the fixed effects of interest. The error rates for all catgories were very low, with slightly – and in the logistic regression significantly (p=.01) - more errors for gender star forms (5.2%, *se*=.51) compared to masculine (4.4%, *se*=.54) and feminine forms (4.7%, *se*=.45) (see Figure 1). However, neither pairwise t-tests (all t's < 1.2) nor a X^2-test ($X^2(3)=2.1$, n.s.) confirmed these small differences between conditions. Position did not affect error rates. The reaction times decreased during the course of the experiment and they reflected word length, but gender form did not influence response speed. The interaction between gender form and position was not significant, despite the apparently slightly steeper slope for the star form (see Figure 2).

These results indicate that the gender star form does not lead to substantial word recognition difficulties on the word level. The finding is encouraging for proponents of gender-fair language. A limitation of the present study is that only few non-words with the asterisk in positions other than the morpheme boundary (e.g., Report*erin), or items with similar surface form, but without gender implications (e.g., *Backste*in*, brick) were included. Moreover, in this study most participants were university students who are more likely to be exposed to gender-fair language than the general population. Additional analyses taking into account demographic variables and the results of the attitude questionnaires will be reported to characterize potential interindividual differences. Future research will include a more heterogenous sample of participants, including a wider range of age and educational background.

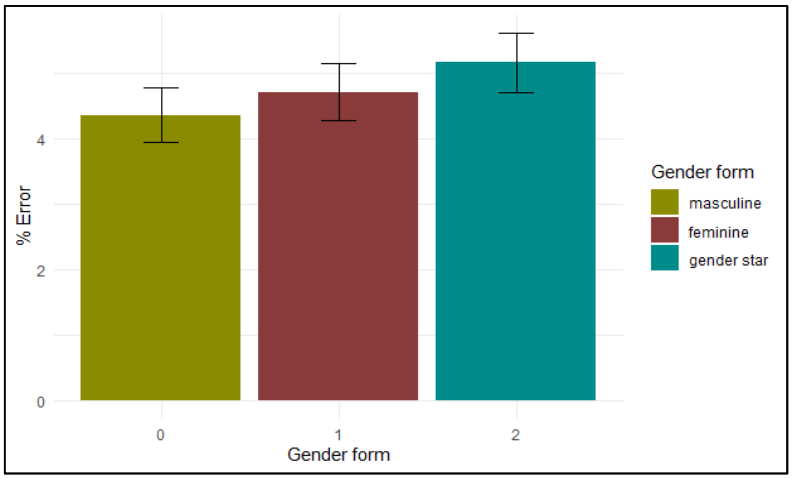

Figure 1. Error rates for the three gender forms. Error bars depict standard errors of the mean.

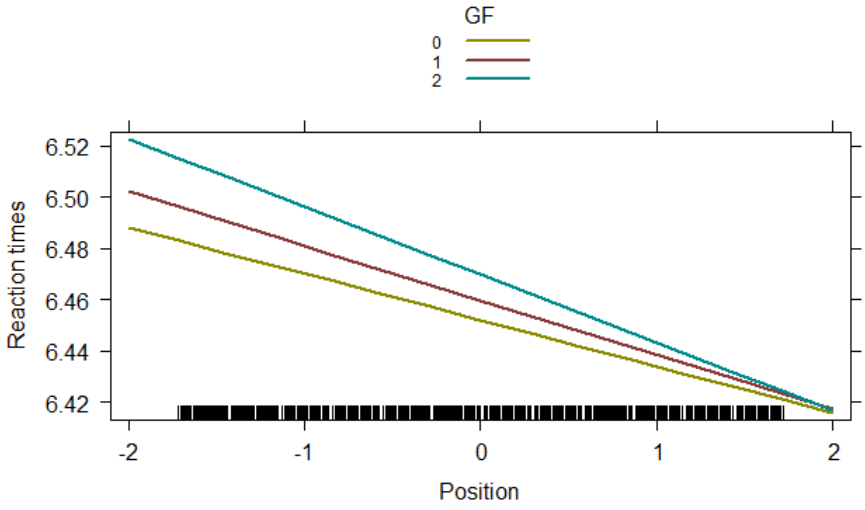

Figure 2. Model-based estimates of the mean log-RTs for masculine (0), feminine (1) and gender star (2) as a function of the temporal position of the trial in the experiment. Neither the main effect of gender form nor its interaction with position were significant.

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