

Gender-fair language processing? A self-paced reading study on the German gender star

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In the debate about gender-fair language in Germany, many critics claim that using special characters like the gender star within words leads to more complex and less comprehensible texts (Payr 2022, Rat für deutsche Rechtschreibung 2023). However, studies on the influence of the gender star form on reading difficulty found that it did not significantly impair comprehensibility in the plural (Pabst & Kollmayer 2023, Friedrich et al. 2024) or that comprehensibility was even improved by the gender star (Friedrich et al. 2021). These studies focus on participants' subjective rating of comprehensibility. In the present study, I am expanding on this body of research by investigating the question whether the gender star form is more difficult to process than the generic masculine using a more implicit measure of language processing: reading times.

To this end, I have conducted an online self-paced reading experiment which investigates the processing of gender star forms in German. The target words were job titles in their plural forms in four different conditions: specific masculine, e.g., *Schneider*, specific feminine, e.g., *Schneiderinnen*, generic masculine, e.g., *Schneider*, and the gender star form, e.g., *Schneider*innen* (all examples can be translated as 'tailors'). All target words were embedded in 24 sentences of similar length and structure which participants ($n = 123$) had to read word by word. Participants' reading times of the individual words were measured.

For the statistical analysis, I employed a linear mixed effects regression model to compare the reading times in the different experimental conditions. The dependent variable was READING TIME OF THE TARGET WORD and the predictor of interest CONDITION (gender star vs. generic masculine vs. specific masculine vs. specific feminine). Additionally, the covariates LEVEL OF EDUCATION OF PARTICIPANTS, NUMBER OF LETTERS OF TARGET WORD, TRIAL NUMBER, BASE FREQUENCY OF TARGET WORD, PARTICIPANT and TARGET WORD were added. The results showed no significant difference in reading times between the gender star form and the generic masculine ($p > 0.05$). There was, however, a significant difference between the specific masculine and both the specific feminine ($p = 0.0124$) and gender star form ($p = 0.0070$).

The fact that no significant difference between gender star form and generic masculine was found is in line with the previous studies mentioned above and points to the interpretation that the gender star does not impede the readability of texts. The significant difference between specific masculine and both specific feminine and gender star form might be due to the higher frequency and lower morphological complexity of the specific masculine compared to the other two forms, which makes it easier to process. The generic masculine, however, has the same advantages over the gender star form and specific feminine but did not show significantly faster reading times. The reason for this could be that the specific masculine always refers to a male only group, which is immediately clear to the reader, while for the generic masculine (and gender star form) there is some uncertainty as to what kind of group of people is referred to. This uncertainty might lead to longer processing times for these more generic forms, explaining the different findings for the different conditions.

References

- Friedrich, Marcus C. G., Veronika Drößler, Nicole Oberlehberg and Elke Heise. 2021. The influence of the gender asterisk ('Gendersternchen') on comprehensibility and interest. *Frontiers in Psychology* 12. 760062. doi: 10.3389/fpsyg.2021.760062
- Friedrich, Marcus C. G., Selina Gajewski, Katja Hagenberg, Christine Wenz & Elke Heise. 2024. Does the gender asterisk ('Gendersternchen') as a special form of gender-fair language impair comprehensibility? *Discourse Processes* 61(9). 439–461. doi: 10.1080/0163853X.2024.2362027
- Pabst, Laura Mathilde & Marlene Kollmayer. 2023. How to make a difference: The impact of gender-fair language on text comprehensibility amongst adults with and without an academic background. *Frontiers in Psychology* 14. 1234860. doi: 10.3389/fpsyg.2023.1234860
- Payr, Fabian. 2022. *Von Menschen und Mensch*innen. 20 gute Gründe mit dem Gendern aufzuhören*. Wiesbaden: Springer. doi: 10.1007/978-3-658-36675-9
- Rat für deutsche Rechtschreibung. 2023. *Erläuterungen und Begründungen zum Ergänzungspassus ‚Sonderzeichen‘ im Amtlichen Regelwerk für die deutsche Rechtschreibung. Beschluss des Rats für deutsche Rechtschreibung vom 15. Dezember 2023*. <https://www.rechtschreibrat.com/geschlechtergerechte-schreibung-erlaeuterungen-begrueundung-und-kriterien-vom-15-12-2023/>. (March 30, 2025)