

The processing of French gender-fair forms in reading: An eye-tracking study

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Over the last decades, linguistic gender-fair forms have become increasingly used by individuals and official institutions. In the French-speaking sphere, this has led to heated discussions among politicians and other stakeholders, some of which claim that these forms render texts illegible and inaccessible to the greater public. However, the processing of French gender-fair forms in reading has so far only been investigated in studies which used sentence-evaluation tasks (e.g., Gygax & Gesto, 2007; Liénardy et al., 2023; Zami & Hemforth, 2024) or, if they used eye tracking, were exploratory (e.g., Girard et al., 2022).

In the present paper, we add to this limited body of research by reporting results from a pre-registered eye-tracking study where 58 native French-speakers read short texts which included a masculine form (*voisins* [neighbours.MASC]), complete double form (*voisines et voisins* [neighbours.FEM and neighbours.MASC]) or contracted double form (*voisin·es* [neighbour.MASC·FEM.PL]). Seeing as these three forms differ not only in length but also in noun phrase (NP) structure, we include a control condition which makes use of NPs of similar length and NP structure as the experimental forms (for example: *juristes* [legal experts], *cyclistes et arbitres* [cyclists and referees], or *rouge-gorges* [robins]). Thus, we do not compare the gender-fair forms directly to the masculine form, but to other NPs of similar length and NP structure.

Different eye-movement measures considered to reflect different stages of the reading process (cf. Boston et al., 2008; Conklin et al., 2018) were analysed through (general) linear mixed-effects modelling using the *lme4* package (Bates et al., 2021) in R (R Core Team, 2021). Consistent with previous findings, the complete double forms were not found more costly to process. In contrast, contracted double forms led to increased processing costs in intermediate and late stages of processing, while having no effect on early stages of processing. This indicates that contracted double forms do not pose a problem for word identification and lexical access processes, but rather for processes related to word integration or general comprehension. Our data also indicate that the processing of contracted double forms might become easier over time, and that it could be facilitated by positive attitudes towards gender-fair language.

In sum, our findings show that the processing of a complete double form is not harder than that of other conjoined NPs of similar length. However, contracted double forms led to increased processing costs in measures reflecting intermediate and late stages of processing, at least when compared to common compound nouns of similar length. These findings provide important insights which enlighten the current debate and should therefore be considered in the elaboration of official guidelines regarding gender-fair language. Given the scarcity of eye-tracking studies on the processing of gender-fair forms, even in other languages than French, the relevance of the current study extends to all researchers interested in the processing of gender-fair forms, regardless of their working language.

References

- Bates, D., Maechler, M., Bolker, B., Walker, S., Haubo Bojesen Christensen, R., Subgnabb, H., Dai, B., Scheipl, F., Grothendieck, G., Green, P., Fox, J., Bauer, A., & Krivitsky, P. N. (2021). *Package 'lme4': Linear Mixed-Effects Models using 'Eigen' and S4* (Version 1.1-27.1) [Computer software]. <https://github.com/lme4/lme4/>
- Boston, M. F., Hale, J., Kliegl, R., Patil, U., & Vasishth, S. (2008). Parsing costs as predictors of reading difficulty: An evaluation using the Potsdam Sentence Corpus. *Journal of Eye Movement Research*, 2(1). <https://doi.org/10.16910/jemr.2.1.1>
- Conklin, K., Pellicer-Sánchez, A., & Carrol, G. (2018). *Eye-Tracking: A Guide for Applied Linguistics Research* (1st ed.). Cambridge University Press. <https://doi.org/10.1017/9781108233279>
- Girard, G., Foucambert, D., & Le Mené, M. (2022). Lisibilité de l'écriture inclusive : Apports des techniques d'oculométrie. In P. Tarahomi (Ed.), *Actes du Congrès de l'ACL 2022* (p. 15). <https://cla-acl.ca/actes/actes-2022-proceedings.html>
- Gygax, P., & Gesto, N. (2007). Féminisation et lourdeur de texte. *L'Année psychologique*, 107(02), 239. <https://doi.org/10.4074/S0003503307002059>
- Liénardy, C., Tibblin, J., Gygax, P., & Simon, A.-C. (2023). Écriture inclusive, lisibilité textuelle et représentations mentales. *Discours*, 33. <https://doi.org/10.4000/discours.12636>
- R Core Team. (2021). *R: A Language and Environment for Statistical Computing* (Version 4.1.1) [Computer software]. R Foundation for Statistical Computing. <https://www.R-project.org>
- Zami, J., & Hemforth, B. (2024). Intelligibilité de l'écriture inclusive : Une approche expérimentale. *SHS Web of Conferences*, 191, 10004. <https://doi.org/10.1051/shsconf/202419110004>