Do masculine generic pronouns favor male referents? Evidence from eye-tracking.

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Masculine generic pronouns (e.g., 'To each his own') are still highly common across languages. Despite the prevalent use of masculine pronouns to refer to all genders, little is known about their online processing and interaction with linguistic and extralinguistic factors. We know from offline measures that masculine generic pronouns can lead to a male bias (e.g., Moulton, Robinson, & Elias, 1978), but how are they resolved online? Do masculine generic pronouns lead readers to expect male referents, even though these pronouns are intended to refer to all genders? We present two eye-tracking reading experiments, testing if the Dutch possessive pronoun *zijn* 'his' leads to a male bias in online processing and therefore hinders the processing of female referents. We further tested the robustness of the hypothesized male bias by varying two factors which are likely to mediate this effect, namely gender stereotype context (Experiment 1) and number (Experiment 2). Experiment 1 (N=120) embedded *zijn* 'his' in stereotypically male (e.g., repairing one's car), female (e.g., dyeing one's hair) or neutral contexts as in (1):

(1) *Iedereen was zijn gordel aan het vastmaken, waaronder enkele vrouwen/mannen [...].*
'Everyone was putting on his seatbelt, among whom several women/men […].'

Our analysis using linear mixed effects models suggests that *zijn* leads to a male bias: reading time increased when female referents were mentioned, but in neutral contexts and for male participants only. Thus, *zijn* only informed gender inferences and expectations about upcoming referents when no other gender information was given, and for male participants only.

Experiment 2 (N=84) tested whether number mediates the pronoun's male bias in truly generic contexts:

(2) *Iemand/Iedereen(/Mensen) met een lange vakantie kan(/kunnen) even zijn(/hun) stress vergeten, zo ook de vrouw/de man in de duinen [...].*
'Someone/everyone(/people) with a long vacation can forget about his(/their) stress, for example the woman/man in the dunes […].'

We hypothesized that readers would be more likely to use the pronoun gender to inform expectations about upcoming referents in the presence of a grammatically singular antecedent (*someone*) as opposed to a grammatically plural antecedent (*everyone*) or the control condition, even in these truly generic contexts. A linear mixed effects model suggests that the masculine pronoun leads to a bias for male participants in semantically singular contexts featuring *someone*, but not for semantically plural *everyone*. In summary, both experiments suggest that men in particular are prone to interpreting the masculine generic pronoun *zijn* 'his' as referring to men instead of all genders, and that this male bias is affected by (extra)linguistic context. Possible explanations for this gender difference will be discussed.
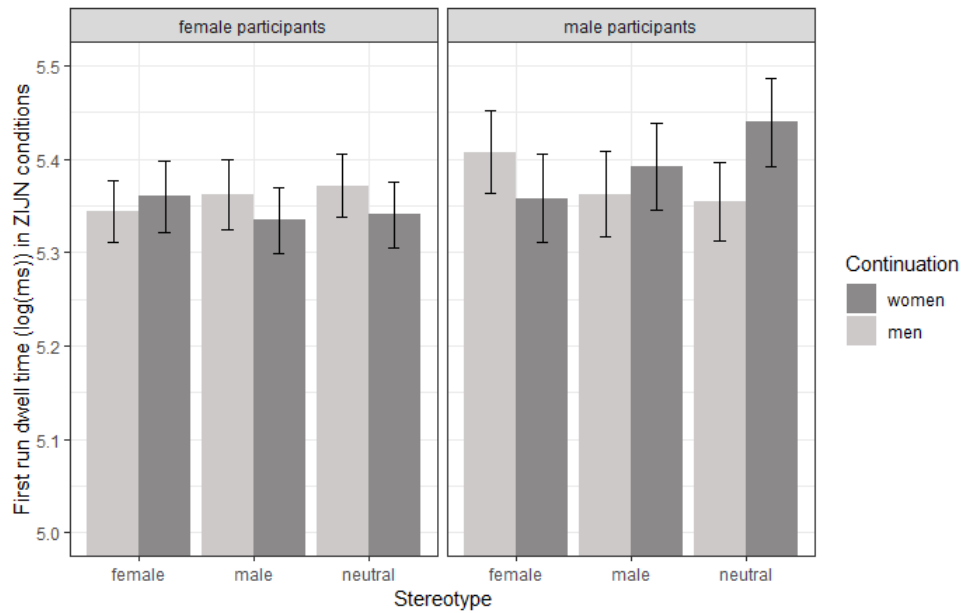
Figure 1. Experiment 1: First run dwell time in log milliseconds with 95% confidence intervals on the quantifier for stereotypically female, male and neutral contexts, split for female and male participants.
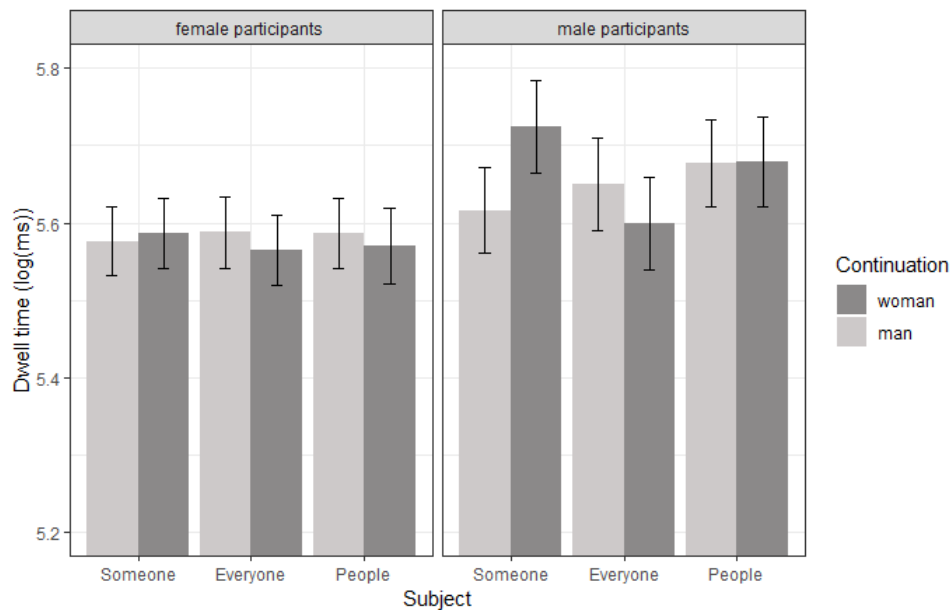

Figure 2. Experiment 2: Mean dwell time in log milliseconds with 95% confidence intervals on *woman/man* for sentences featuring *someone, everyone* and the control condition featuring *people*, split for male and female participants.

References

Moulton, J., Robinson, G. M., & Elias, C. (1978). Sex bias in language use: "Neutral" pronouns that aren't. *American Psychologist*, *33*(11), 1032–1036. http://doi.org/10.1037/0003-066X.33.11.1032