The processing costs of generic and specific singular *they*: A self-paced reading study

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Background: The present study investigates the online processing of *he*, *she*, generic definite (GD) and specific ungendered (SU) singular *they* [cf. 1] by speakers of British English. Following the study by [2], it aims to show whether almost thirty years of language use lead to a change in the processing of singular *they*. That is, does GD *they* still come with shorter reading times than a stereotypically mismatched *he* or *she*, and does SU *they* still show the opposite effect?

Method: A self-paced reading task was conducted, following the design of [2]. Eighty native speakers of British English (mean age: 39 years, range 18-84) were recruited via Prolific. Their task was reading sentences consisting of three clauses, where each clause was given on a separate slide and disappeared when proceeded to the next (see Example 1 and Figure 1).

1. A / The **magician** has to perform flawlessly,
   even if PRONOUN may be nervous,
   because illusions rely on confidence and precision.

The first clause contained a stereotypically male or female role noun (bold in Example 1) based on the stereotypicality data from [3]. The introduced referent was either generic definite (the sentence started with an indefinite article) or specific ungendered (the sentence started with a definite article). The second clause contained one of the pronouns under investigation (*he*, *she*, *they*) referring to the referent. The third clause justified the claim made by the first two clauses. For each sentence, participants were asked whether they agreed with its statement to ensure parsing of the content. After the task, participants were asked their preferred pronouns as a more relevant alternative control variable for gender, as genders and pronouns do not show a one-to-one correspondence. Participants' response is henceforth used to differentiate between *participant type*s: HE and SHE participants. Reading time data normalised by number of syllables for the second clause were analysed in linear mixed-effects models following standard procedures [4], including variables such as *pronoun*, *stereotypicality*, *participant type*, and *age group*.

Results: With stereotypically male generic definite referents, the reading times of *they* are significantly longer than those of *he*, but not different to those of *she*. Figure 2 illustrates these findings. With stereotypically female generic definite referents, no differences between the pronouns were found. With specific ungendered referents, an effect of *pronoun* does not emerge.

Discussion: The present results indicate two main findings. First, the two types of singular *they* are processed differently. Second, for GD *they*, an influence of participant stereotypicality is found. In sum, it appears that the processing of GD *they* remains influenced by stereotypicality, whereas the processing of SU *they* does not. This finding indicates that SU *they* became more accepted over time, suggesting a change in its processing.

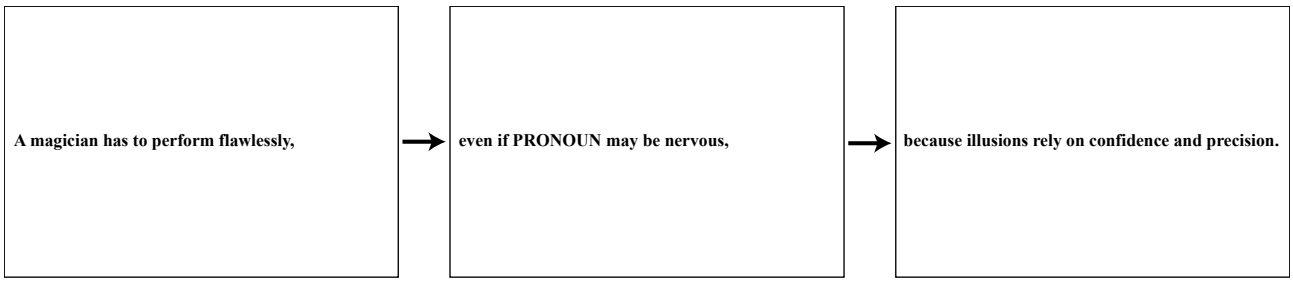

Figure 1: Trial structure: With each key press, the next clause of a trial appears.

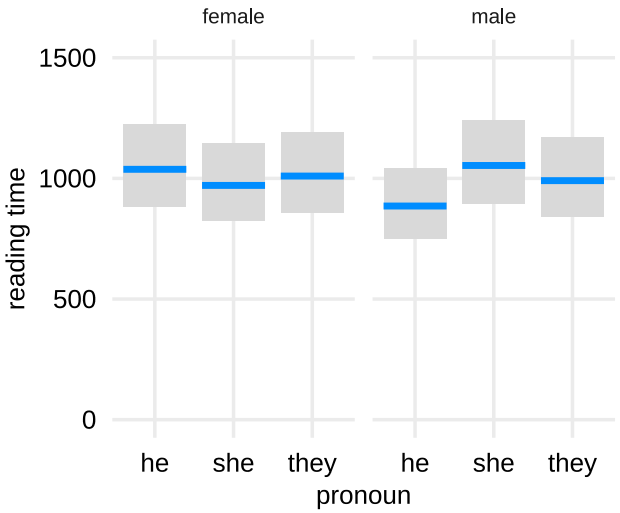

Figure 2: Effect of *pronoun* and *stereotypicality* (columns) on reading times for generic definite referents.

References

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