Time is all *they* needs:
Factors influencing the processing of generic and specific singular *they*

Dominic Schmitz
Heinrich Heine University Düsseldorf

The present study investigates the online processing of *he*, *she*, generic definite (GD) and specific ungendered (SU) singular *they* by speakers of British English to answer two questions. First, does singular *they* come with generally higher processing costs than *he* and *she*? Second, do societal changes, e.g. shifts in (cis)normative tendencies, show an influence on processing?

A self-paced reading task was conducted, following the design of Foertsch & Gernsbacher (1997), who also investigated the processing of GD and SU *they*. The participants' (n=80; age: mean 39, range 18-84) task was reading sentences consisting of three clauses (see Ex. 1), where each clause was given on a separate slide and disappeared when proceeded to the next. For each sentence, participants were asked whether they agreed with its content to ensure parsing of the content. The first clause contained a stereotypically male or female role noun (Misersky et al., 2014); the second contained one of the pronouns under investigation referring to it. After the task, participants were asked their preferred pronouns as a more relevant alternative for gender; henceforth HE and SHE participants.

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

Reading time data for the second clause were analysed in linear mixed-effects models following standard procedures (Baayen & Milin, 2010). The main results are:

For GD *they*, 1) when *he* refers to stereotypically male role nouns, reading times are significantly shorter, and 2) HE participants show longer reading times for *she* and *they*, while SHE participants show longer reading times for *he* only.

For SU *they*, only participants in the highest age range (56-84) show significantly longer reading times when *they* refers to a stereotypically male referent than when *he* does.

The present results indicate three main findings. First, the two types of singular *they* are processed differently. Second, for GD *they*, an influence of stereotypicality and one's preferred pronouns is found. Third, for SU *they*, age appears to be the driving factor.

In sum, it appears that the processing of GD *they* remains influenced by stereotypes, whereas the processing of SU *they* does not. This finding indicates that SU *they* becomes more accepted over time, suggesting a specific shift in (cis)normative tendencies regarding language and gender.

References

Baayen, R. H., & Milin, P. (2010). Analyzing reaction times. *International Journal of Psychological Research*, *3*(2), 12–28. https://doi.org/10.21500/20112084.807

Foertsch, J., & Gernsbacher, M. A. (1997). In search of gender neutrality: Is singular they a cognitively efficient substitute for generic he? *Psychological Science*, *8*(2), 106–111. https://doi.org/10.1111/j.1467-9280.1997.tb00691.x

Misersky, J., Gygax, P. M., Canal, P., Gabriel, U., Garnham, A., Braun, F., Chiarini, T., Englund, K., Hanulikova, A., Öttl, A., Valdrova, J., Von Stockhausen, L., & Sczesny, S. (2014). Norms on the gender perception of role nouns in Czech, English, French, German, Italian, Norwegian, and Slovak. *Behavior Research Methods*, *46*(3), 841–871. https://doi.org/10.3758/S13428-013-0409-Z