

## Exposure to singular *they* increases the adoption of singular interpretations over plural

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Singular *they* is an established form in English (1,7), but prescriptively it has been discouraged until recently. As recently as 2015, the 6<sup>th</sup> edition APA style blog advised against using *they* for singular referents like *the participant*, despite advocating in favor of *they* as a personal pronoun for transgender and non-binary individuals in the same post (6). Nevertheless, acceptance of this generic usage has been expanding (3,5). Paralleling this trend, the APA publication manual's 7<sup>th</sup> edition (2019) endorsed the use of singular *they* for generic antecedents (8).

Theoretical accounts support a view of English in which the use and processing of *they* is in transition. Linguistic accounts (2,5) suggest that some people only accept singular *they* in limited contexts, for example quantified referents (*Everyone...they*), but some people accept an innovative variety where *they* can refer to gendered referents as long as the antecedent does not specify a gender feature, and the most innovative variety allows *they* for gender-marked antecedents like *Mary* or *my sister* (5). Use of singular *they* is also more common when the referent is not deemed “socially close” with the speaker (e.g., *the store clerk* vs. *my friend*), perhaps because gender is more likely to be known or relevant in these cases (3). But as more speakers adopt the more innovative variety of singular *they*, this pragmatic tendency may evolve.

In short, the acceptability patterns for singular *they* appear to be changing (2,3,5). We propose that a cognitive mechanism supporting this change is adaptation, a mechanism sensitive to changes in the frequency of linguistic forms. In the current study, we test whether participants adapt to the frequency with which *they* is used as a singular or plural in the immediate context. We predicted that the singular interpretation would be more common in contexts with multiple singular uses of *they* than with multiple plural uses of *they*. While there were two possible singular referents in our stories, we predicted most singular interpretations would select the ungendered referent, which was always the subject of the first sentence.

**Methods:** We used a between-subjects priming paradigm (4) that measures participants' final interpretation of pronouns; methods/analyses were preregistered. We exposed participants to either unambiguously plural prime stories (Plural They List) or prime stories using singular-generic *they* (Generic Singular List). Critical test items were ambiguous between a plural and a generic singular reading of *they* (**Table 1**). 81 undergraduate student participants read 56 short stories in English (20 exposure, 20 critical, 16 filler) and answered two questions about each story. (**Table 1**). We replaced 20 participants who missed inclusion criteria.

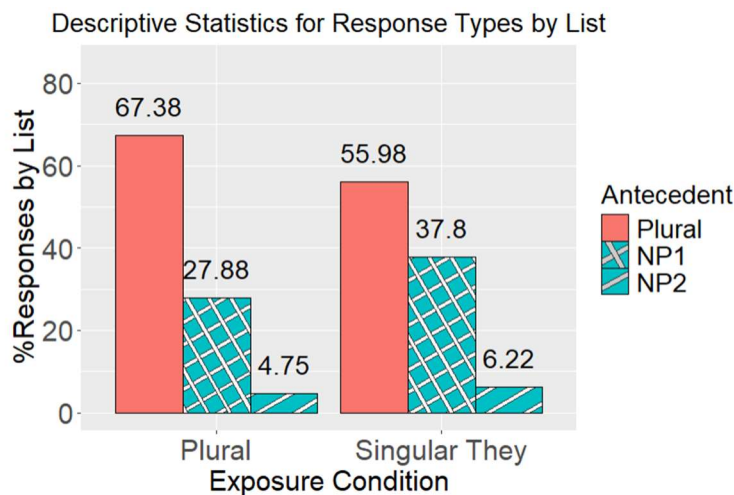
**Results:** Participants selected the plural most frequently but were substantially more likely to select a singular interpretation in the Generic Singular priming list (44% singular responses) than the Plural priming list (33% singular responses). Most singular interpretations were NP1 (the ungendered role; see **Figure 1**). The primary analysis pooled both singular interpretations and compared the rate of singular/plural choices using a logistic mixed effects regression model with exposure type as the predictor (**Figure 2**). Singular interpretations were 2.03 times (odds ratio) as likely to occur in the singular exposure condition compared to the plural exposure condition, a significant difference  $t(66.1) = 2.1, p = .04$ .

**Discussion.** Our results show that exposure to singular *they* increases the chance of assuming a singular interpretation for ambiguous inputs. Exposure may change representations of the relative frequency of singular and plural senses of *they*, or it may specifically increase the expectation of the generic singular for ungendered roles like *the cyclist*. It may also shift judgments about the social acceptability of generic singular *they*. While further work is needed to pin down the representations that are changing with adaptation, it appears that adaptation may underlie ongoing changes in the acceptability of singular *they* in English.

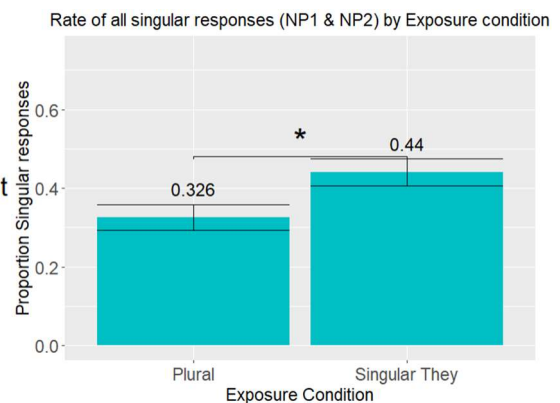
**Table 1. Example stimuli**

Plural Exposure Story Pronoun Question Reading Comp. Question	The <u>cyclists</u> walked into the store, and then <u>they</u> bought some milk. Who bought some milk at the store? What item did they buy?
Singular Exposure Story Pronoun Question Reading Comp. Question	The <u>cyclist</u> walked into the store, and then <u>they</u> bought some milk. Who bought some milk at the store? What item did they buy?
<b>Critical Story (Ambiguous)</b> Pronoun Question Reading Comp. Question	The <u>gardener</u> showed <u>the man</u> some new snapdragons, and then <u>they</u> decided to wash up. Who decided to wash up? (The gardener / The man / The gardener and the man) Who was shown new flowers?
Filler Story Pronoun Question Reading Comp. Question	Will got caught in a traffic jam with Ana, and then he missed an important appointment. Who missed an important appointment? What did Will and Ana get caught in?

**Figure 1**



**Figure 2**



**Figure 1:** PL-Plural (the gardener and the man); NP1-First noun phrase (the gardener); NP2-Second noun phrase (the man)

## References

- [1] Arnold et al. (2021). My pronouns are they/them: .... *Psychonomic Bulletin & Review* [2] Bjorkman, B. M. (2017). Singular *they* and the syntactic representation of gender in English. *Glossa: A Journal of General Linguistics* [3] Camilliere et al. (2021). They is Changing: ... *Proceedings of the Cognitive Science Society*. [4] Johnson, E. D., & Arnold, J. E. (2023). The frequency of referential patterns guides pronoun comprehension. *Journal of Experimental Psychology: Learning, Memory, and Cognition* [5] Konnelly, L., & Cowper, E. (2020). Gender diversity and morphosyntax: An account of singular *they*. *Glossa: A Journal of General Linguistics* [6] Lee, C. (2015). APA Style 6th Edition Blog: The Use of Singular “They” in APA Style. [7] McWhorter, J. (2018, September 4). Call Them What They Wants. *The Atlantic*. [8] Phipps et al. (2023). Words Matter: The 7th Edition APA Publication Manual.... *Journal of Counselor Preparation and Supervision*.