Depending on their social group, does the comprehender process cataphora differently?

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HSP 2023 at University of Pittsburgh – Virtual poster

Abstract: **Definite singular *they*** is emerging in American English, especially among social groups familiar with **nonbinary gender identities**. Evidence from the *L*-Maze suggests that comprehenders from those groups also have **different expectations** about the referent to **cataphoric *they*** during online processing.

Processing cataphora

Pronouns that precede their referents evoke an active search [1–3].

(i) *After **he** left, **the butler** texted the maid.*
(ii) *After **he** left, **the maid** texted the butler.*

Evidence: Gender mismatch effects

- e.g., after cataphoric *he*, masculine nouns (i) are read faster than feminine ones (ii).

How general is this featural search? Are there **number mismatch** effects?

- Number and gender have very different semantics.
- American English *they* has many uses, including nonplural ones.

Sociolinguistics of *they*

Social groups accept innovative uses of *they* to different degrees [4–8].

- Trans & Nonbinary (**noncis**) speakers accept (v) more than cisgender (**cis**) ones.
- Pronoun innovation decreases with **age**.

(iii) ***Those poets** said **they** won.* Def. PL
(iv) ***Each poet** said **they** won.* Quant.
(v) ***That poet** said **they** won.* Def. SG

If online predictions correlate with acceptability, social groups should process *they* differently.

	Group1	Group2	Group3
$p(\text{PL} \mid \textit{they})$	0.90	0.70	0.50
$p(\text{QU} \mid \textit{they})$	0.09	0.20	0.25
$p(\text{SG} \mid \textit{they})$	0.01	0.10	0.25

Experimental design and procedure

2×2 design crossing cataphor (*s/he* vs. *they*) & matrix noun number (*SG* vs. *PL*)

- 32 critical itemsets, 64 fillers; half of trials had comprehension questions; hosted on PCIbex [9]
- Coherence relations and a second matrix noun meant SG-*they* readings were not obligatory.

(a) *When **she** exercises at home, **the reporter** misses the librarians' enthusiastic encouragement.*

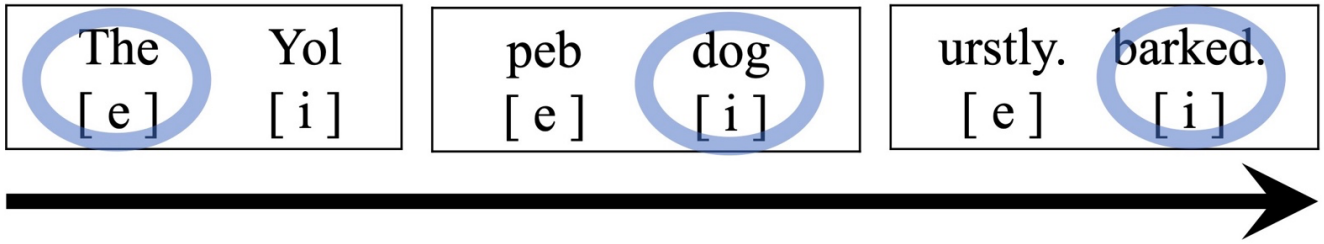
(b) *When **she** exercises at home, **the reporters** miss the librarian's enthusiastic encouragement.*

(c) *When **they** exercise at home, **the reporter** misses the librarians' enthusiastic encouragement.*

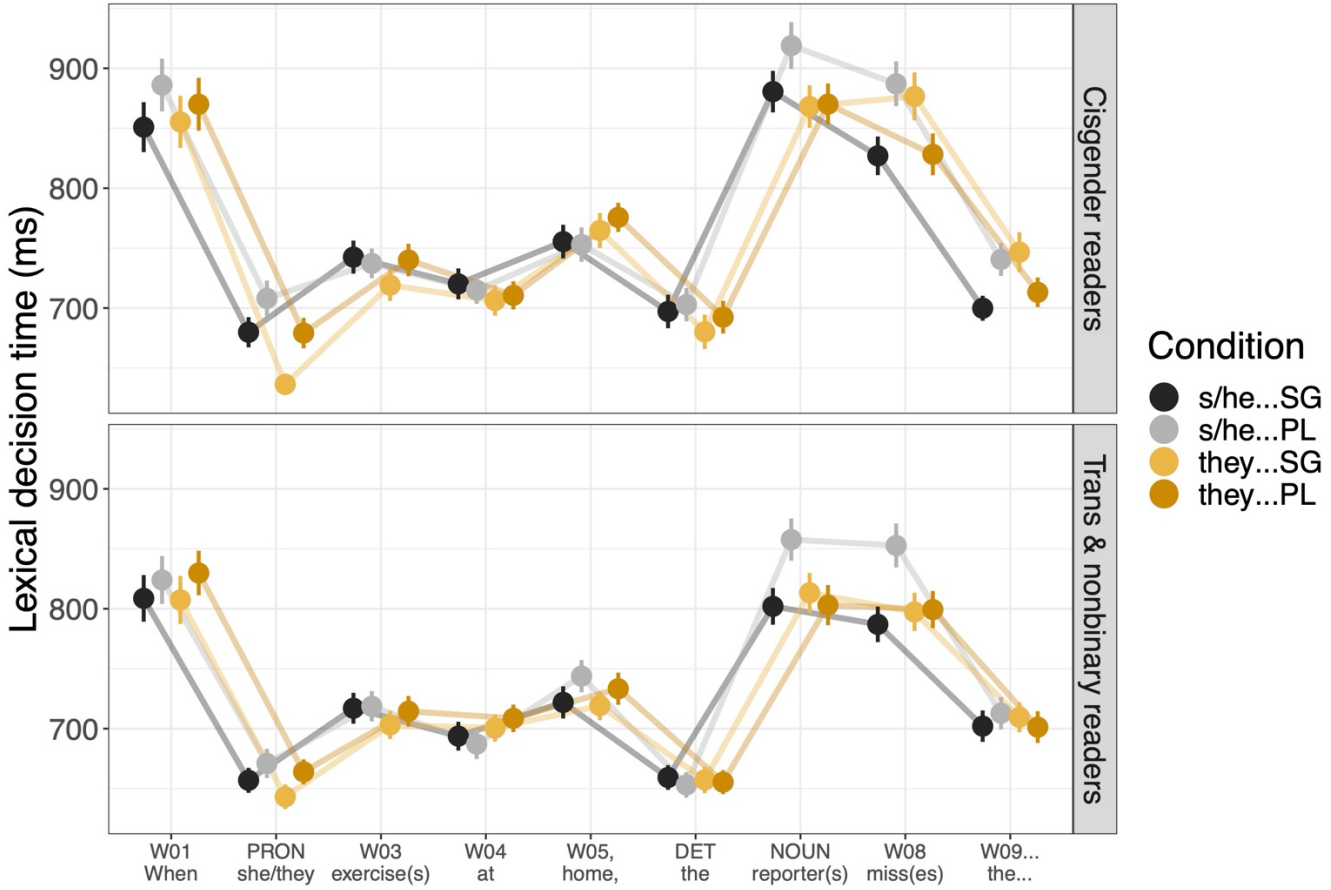
(d) *When **they** exercise at home, **the reporters** miss the librarian's enthusiastic encouragement.*

50 cis and 50 noncis participants recruited via Prolific

***L*-Maze** task: incremental lexicality decisions [10, 11]



Results suggest differential number mismatch effects



At the NOUN region, **both groups** seem to boggle in the ***s/he...PL*** condition.

- **Cis:** MargEff of CAT (p=0.056). **Noncis:** MargEff of SNUM (p=0.058), SigEffs of CAT (p<0.05) & CAT×SNUM (p<0.01)

At the W08 region, **only cis readers** seem to boggle in the ***they...SG*** condition.

- **Cis:** SigEff of CAT×SNUM (p<0.001). **Noncis:** MargEff of CAT (p=0.09), SigEffs of SNUM (p<0.01) & CAT×SNUM (p<0.05)

Discussion and next steps

Cataphoric *s/he* and *they* evoke asymmetrical number expectations.

- *S/he…PL* mismatch effects apparently emerge earlier than *They…SG* mismatch effects.
- Because of **morphosyntactic** differences [4–6]? Because of **semantic** differences [12–14]?

Groups familiar with singular *they* do not exhibit *They…SG* "mismatch" effects.

- Because of noncis comprehenders' language **experience**? Their gender **ideology**?
- Is *they* homophonous? Or is there one *they* with disjunctive presuppositions?
- Directions for further **socio-psycholinguistic research**: age, prescriptivism, and political affiliation [15]; comparing online & offline data; mixing qualitative & quantitative methods

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Thanks to: Brian Dillon, Zuzanna Fuchs, Dan Grodner, Matt Wagers, and audience members at NWAV 50 for valuable input.