The Interpretation of Ambiguous *They*: Children and Adults Pattern Together

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Abstract

The recent upswing in both use and acceptance of *they/them* as a singular pronoun has led to it becoming potentially ambiguous between singular and plural interpretations in cases like "Alex went running with Liz. They fell down" in which Alex is known to use *they/them* pronouns. The current work uniquely investigates how children interpret *they* in these ambiguous cases. Specifically, 5-year-olds, 8-year-olds, and an adult control group underwent a partial replication of Arnold et al. (2021), wherein they answered comprehension questions regarding a series of two-sentence stories. Results show that children can successfully map the pronoun *they* onto a singular individual when there are no plural competitors and that they interpret ambiguous *they* similarly to adults, although 5-year-olds interpret this pronoun as singular more often than 8-year-olds. These findings indicate that older children potentially undergo a form of overregularization of *they* due to grammatical rules enforced at school.

Keywords: pronouns; gender; nonbinary; language acquisition; ambiguity resolution

Introduction

At first glance, the English pronoun *they* may not seem particularly divisive. The pronoun is well-known to be used in the English language to refer to a group in a third person plural context (e.g., *They* (the students) *are writing a test.*). However, despite the prescriptivist views of some (e.g., Strunk & White, 1972; Doll, 2013), there has been a recent overall trend toward the acceptance of the pronoun *they* being used in a singular, specified context (e.g., *Skye$_i$* [a specific, known individual] *had to leave early because they$_i$ have a dentist appointment*). This overall trend of acceptance of singular *they* is attributed to the rise in acknowledgement of gender nonconformity, including (but not limited to) nonbinary gender (Reuters, 2020) and is considered a linguistic change-in-progress (Konnelly & Cowper, 2020).

This linguistic change-in-progress is not just occurring with regard to language production and/or acceptability, but in comprehension as well. This has led to previously unambiguous statements becoming less so. For example, consider the following two sentences:

1. Alex went running with Liz. They fell down.

If one was previously aware that Alex uses singular *they/them* pronouns, the subject *they* is ambiguous between a singular

and plural interpretation (as in only one person, Alex, fell down vs. two people, both Alex and Liz, fell down) for those accepting of singular *they*. Arnold, Mayo, and Dong (2021) attempted to uncover how this "ambiguous *they*" is interpreted via a series of experiments wherein adult participants were introduced to three characters: Liz (*she/her*), Will (*he/him*), and Alex (*they/them*), the last of these characters being nonbinary. Participants were either explicitly told the pronouns of these three characters (Explicit condition) or were implicitly taught them via a series of one-person training stories (Implicit condition). For example, *Alex remembered to bring an umbrella. They didn't get wet*, which requires that *they* refer to Alex alone.

Participants were then given a series of two-sentence stories. The critical stories were ones involving Alex or Alex and another person, the latter leading to an ambiguity between singular and plural interpretations of *they*, see (1). While Arnold et al.'s (2021) study contained three separate experiments, only the first directly pertains to the present study. Simply put, there were two main findings from this particular experiment: first, while the pronoun *they* was successfully interpreted in the singular in one-person contexts the majority of the time (Explicit: 99%; Implicit: 98%), it was less commonly interpreted as singular in two-person contexts (Explicit: 50%; Implicit: 19%). Second, explicitly introducing one's pronouns as *they/them* promoted the interpretation of *they* as singular in contexts involving an individual using *they/them* pronouns, when multiple people were involved.

While studies such as this have begun to investigate how adults interpret "ambiguous *they*," no studies are yet known to investigate how children interpret ambiguous *they* and how the growing acceptance of singular *they* may be affecting what they are learning about the use of this pronoun. However, previous work has examined how both adults and children resolve the English binary pronouns (*he* and *she*) in ambiguous scenarios (e.g., adults: Arnold, Brown-Schmidt, & Trueswell, 2000; Crawley, Stevenson & Kleinman, 1990; Jarvikivi et al., 2005; children: Arnold, Brown-Schmidt, & Trueswell, 2007; Hartshorne, Nappa, & Snedeker, 2011; Pyykkönen, Matthews, & Järvikivi, 2010; Sekerina, Stromswold, & Hestvik, 2004; Smith & Kam, 2015; Song & Fisher, 2005, 2007). For example, Arnold et al. (2000) conducted a visual world eye-tracking study examining adults' interpretation of ambiguous binary pronouns in English. They ultimately found that when a binary pronoun's

referent was ambiguous between two characters of the same gender, adults interpreted the pronoun as referring to the first-mentioned character, a *first-mention bias*.

Arnold et al. (2007) expanded on these results with another visual world eye-tracking experiment, this time with children ages 3- to 5-years-old. Unlike adults, children of this age did not have a first-mention bias, and instead had a 50/50 split between choosing the first- or second- mentioned character in similar ambiguous contexts. However, this split was not due to child participants being unsure and picking at random. From the moment the pronoun of the story was heard, children looked immediately towards the character they ultimately chose no matter if that choice was the first- or second-mentioned character. Thus, Arnold et al. (2007) concluded that children of this age do not yet have a first-mention bias like adults. Although other studies have found evidence of first-mention bias in 3-year-old children and younger (Pyykkonen et al., 2010; Song & Fisher, 2005, 2007), any bias that children of this age may have is still considered weak (see Smith & Kam, 2015 for further discussion of this point).

Returning to singular *they*, previous research has provided evidence that there is an effect of familiarity on acceptance and use of singular *they* by adults (Ackerman, Riches, & Wallenberg, 2018; Bradley, 2020; Hernandez, Shukla, & Bischoff, 2018; Kramer, Boland, & Queen, 2022). Ackerman et al. (2018) found a positive correlation between acceptance of singular *they* and familiarity with gender diversity, even when the pronoun was used with traditionally gendered names. Kramer et al. (2022) found similar results when they examined production of singular *they*. In their study, participants produced stories about a number of pictured individuals (who all identify as nonbinary) using a provided list of verbs. For this task, participants were either just given an image and verb list, or they were also given a short paragraph providing information about the pictured individual; crucially, these informative descriptions included the use of *they/them* pronouns. They found two key results: (1) priming an individual with singular *they* promoted its subsequent use in production, and (2) familiarity was the best social predictor of singular *they* production, even more-so than age.

While there are no known studies that specifically examined children's attitudes towards or use of singular *they*, research such as that conducted by Zosuls et al. (2009) showed that knowledge of gender categories increased the amount of sex-typed play (i.e., playing within typical gender roles) in children as young as 18-months-old. They also found that children began verbalizing their gender identity as early as 18-24 months. Using interview-like tasks, Fast and Olson (2018) found that transgender and cisgender children aged 3- to 5-years-old were equally as likely to self-categorize their gender identity. Additionally, Olson and Enright (2018) found that children with a transgender sibling tended to have less stereotypical gender-based beliefs and may be overall more accepting of gender nonconformity than children with cisgender siblings. Therefore, it stands to

reason that it is more than possible for children as young as kindergarten age to have successfully acquired singular, specified *they*, presuming that they have been exposed to it. Not only this, but it also follows that familiarity with gender nonconformity could have an effect on a child's acceptance of singular *they* and interpretation of ambiguous *they* to some extent.

The present study directly addresses the question of children's interpretation of singular, specified *they* in ambiguous and unambiguous contexts and attempts to answer two key questions: (1) *Can children successfully map the pronoun* they *to a singular, specified individual?* and (2) *How do children resolve ambiguous* they*, and is this any different than how it is resolved by adults?* Based on the previous literature (e.g., Arnold et al., 2007; Fast and Olson, 2018; Olson and Enright, 2018; Zosuls et al., 2009), we predict that children are not only capable of mapping the pronoun *they* onto a singular individual, but that they should also minimally be able to interpret ambiguous *they* similarly to adults, if not be more liberal in their singular interpretation than adults are. Furthermore, given the work demonstrating a relationship between familiarity and the comprehension and production of singular *they* (e.g., Kramer et al., 2022), we predict that there would be a positive correlation between the interpretation of *they* as singular and knowledge/experience with singular *they* and/or individuals who use *they/them* as their personal pronouns for both age groups (with children's familiarity estimated by the environment fostered by their parents/guardians).

Method

Participants

A total of 24 kindergarten-aged children (mean: 5;0, range: 4;6-5;6) and 24 older children (mean: 8;0, range: 7;6-8;6) participated in an online partial replication of Arnold et al.'s (2021) Experiment 1; specifically, we only utilized the Explicit condition (i.e., explicitly revealing Alex's pronouns to be *they/them*). Child participants of both age groups were recruited from the communities surrounding Mississauga, ON, Canada. Families were compensated for their participation with an gift card for a minimum of CAD $7.00 at a rate of CAD $10.00 per hour. Additionally, 24 adults (mean: 37;8, range: 19;3-59;10) participated and acted as a control group. Adult participants were recruited via Prolific (www.prolific.co) and were each compensated CAD $7.50. All participants were self-identified native English-speakers from North America (Canada and the USA).

Materials

With permission (Jennifer Arnold, p.c.), the same characters as those in Arnold et al. (2021) were used: Liz (*she/her*), Will (*he/him*), and Alex (*they/them*) (see Figure 1). The primary task for participants was to listen to two-sentences stories involving these characters and answer questions about said stories. Throughout the entire experiment, there were three practice stories, 12 training stories, 15 filler stories, and eight

Figure 1: Images used for each character. From left to right: Liz (*she/her*), Will (*he/him*), and Alex (*they/them*).

critical stories, for a total of 38 stories. For examples of each, see Table 1. These were the same stories as those used in Arnold et al. (2021) with one additional practice story created for the present study. The newly written practice story and its questions are available at https://osf.io/vrw7t/. The remaining trials from Arnold et al. (2021) can be found at https://arnoldlab.web.unc.edu/publications/supporting-materials/arnold-mayo-dong-2021/.

The three practice stories involved two characters, one of each possible pair: Liz & Alex, Liz & Will, and Will & Alex (e.g., example 4 in Table 1). None of these practice stories were the same as any of the filler or critical trials. Training trials (12 total, four per character) were stories that involved a single character in order to further cement participant comprehension of both the names of the characters and their pronouns (e.g., example 2 in Table 1). Filler trials were purposely unambiguous and could involve Liz, Will, or both Liz and Will, but never involved Alex (e.g., examples 3a-3d in Table 1).

Finally, there were eight critical trials. Each of these trials had two variants: a One-person context involving just Alex and a Two-person context involving Alex and another character (One-person context: example 1a in Table 1; Two-person context: example 1b in Table 1). The Two-person context was crucial for investigating how the pronoun *they* is interpreted due to the ambiguity between singular and plural interpretations that arose in these stories: *they* could be singular and refer to Alex alone or it could be plural and refer to both Alex and the other character involved in the story. Note that Alex was always the first-mentioned character in these trials. These critical trials were distributed into lists using a Latin square design, such that participants saw four One-person and four Two-person critical trials.

All stories were followed by a critical question.[1] This question was of the format *Who [did the action in the second sentence]?* As shown in Figure 2, each story was given to participants while the choices for the answer to the critical question were displayed on screen. The trials were designed this way to allow for the collection of eye-tracking data during the stories, but this data was ultimately not analyzed.[2] Options were either a single character (meaning that character alone did the action) or two characters (meaning that both characters did the action together). There were always four possible answers given, with the exception of the

first practice trial, which only had two options, a singular character and two characters, in order to clearly instruct participants on the difference in meaning between the two.

Table 1: Examples of all trial types.

|	Type	Condition	Story
(1a)	Critical	One-person	**Alex** went running. **They** fell down.
(1b)	Critical	Two-person	**Alex** went running with **Liz**. **They** fell down.
(2)	Training	n/a	**Alex** went to the store. **They** bought some milk.
(3a)	Filler	Two people + plural *they*	**Liz** went on a boat with **Will**. **They** had a great time.
(3b)	Filler	Two people + singular binary pronoun	**Will** went shopping with **Liz**. **She** bought a suit.
(3c)	Filler	One person + appropriate pronoun	**Liz** swam one mile. **She** was tired.
(3d)	Filler	One person (no pronoun)	**Will** studied a new language. Japanese was difficult.
(4)	Practice	n/a	Liz and Will went to the park to feed the birds. They ran out of bread and had nothing to eat for lunch.
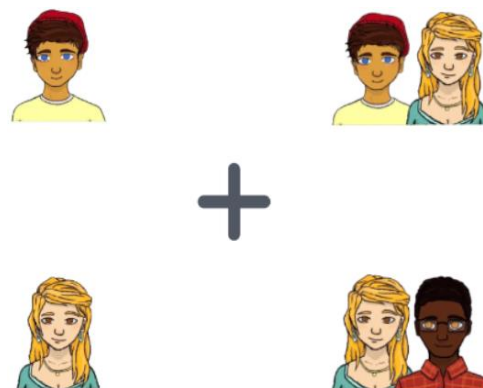
Figure 2: Example display for the critical story: *Alex went running with Liz. They fell down.* (Two-person context). The accompanying critical question was *Who fell down?*

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[1] Critical questions were also followed by a content question. However, these were used as attention checks and not analyzed.

[2] Eye-tracking data was collected for the adults, but collection was stopped for both child age groups when it became clear after piloting that it was not possible to collect reliable data from them online.

For training trials, the options were each of the three characters by themselves and a plural option of the character in the story and another random character. For all other trials, two options were of singular characters and two options were of two characters together. For trials that involved two characters in the story, the two singular options were always the two characters mentioned in the story. For the plural options, one option would be the two characters together with the other plural option being a distractor. For critical trials, the distractor plural was always Liz and Will. The same combination of images was used for both One-person and Two-person variants of critical trials. All instructions, stories, and questions were recorded by a cisgender female native speaker of American English using child-directed prosody. For child participants, instructions were given by a cartoon host character.

In addition to the main task, the experiment also included a questionnaire on social factors. For child participants, this was filled out by a parent or guardian and included basic demographic questions such as the child's age (month and year only), languages spoken and understood (by both the child and parent/guardian), and racial/ethnic identity. Following studies such as Kramer et al. (2022), the questionnaire also included questions on how many individuals the participant or parent/guardian knew of or knew personally that are transgender, nonbinary, or use *they/them* pronouns. For best comparison, these questions were taken directly from Kramer et al.'s (2022) questionnaire presented in Experiment 2 of their study. Additionally, the adult participant or parent/guardian was asked if they (or their partner) were part of the 2SLGBTQIA+ community,[3] if they (or their partner) considered themselves to have grown up in a 2SLGBTQIA+-positive environment, and whether there was a large 2SLGBTQIA+ community where they currently lived. These final three questions were optional, to respect privacy. The full questionnaire is also available online at https://osf.io/vrw7t/.

Procedure

The experiment itself was hosted on Gorilla (www.gorilla.sc), with all participants running the experiment online. Child participation was monitored over Zoom (Zoom Video Communications, Inc., 2023) to allow the experimenter to assist in any technical difficulties. Adult participants ran the experiment without this experimenter.

For child participants, all instructions were given verbally using child-directed prosody. While adult participants were given the exact same instructions, some were given in text format to limit the amount of child-directed speech that the adults had to listen to. Specifically, this included all instructions in the character introduction and practice tasks, but not the actual introductions, practice stories, and test questions about the stories themselves.

Participants were first introduced to the characters that would be involved in the stories (see Figure 1). Each character image was shown one at a time with their names given. Participants were then shown all three characters at once and tested on the information that they had just learned using the following question: *Who is [Liz / Will / Alex]?* If a participant answered one of these identity questions incorrectly, they were prompted to try again and the question was repeated. In order to proceed, a participant had to successfully get each character's name correct twice.

After successfully identifying the characters, participants were then introduced to each character's pronouns. The wording was simplified to maximize understanding (i.e., no reference to the word "pronoun" was made, which children this age may not understand): *When we talk about [Liz / Will / Alex], we use [*she *or* her */ *he *or* him */ *they *or* them*].* Afterwards, participants were tested on this knowledge using the following phrasing: *Who do we refer to as [*she *or* her */ he *or* him */ they *or* them*]?* As with the characters' names, participants were asked to try again when they answered a question incorrectly and the question was repeated. They could only proceed to the next task after successfully matching each character's pronouns correctly twice.

Participants were verbally given an example of a story, along with two images representing the two types of potential answers: one of just a single character and one of two characters. It was explained to participants that selecting an image with two characters meant that they thought that the action was done by both characters, while an image with one character meant that they thought that the action was done by the one character alone. Participants were then given an example of a critical question. Afterwards, participants were given the answer for this question and were asked to click the associated image to continue. After this story example, participants were instructed that for the actual experiment there would be four options on the screen. Two additional practice stories with four character images were then given.

Trials in the main task were grouped into six blocks, each containing six stories except for the last, which had only five. The first two blocks contained all 12 training trials, randomized across both blocks. The remaining four blocks were quasi-randomized such that each block had the following order: two fillers, one critical, two fillers,[4] one critical. The position of the images on the screen for the critical questions was randomized to avoid having the character images always appear in the same order on the screen.

After the main task, the parents/guardians of child participants were told that the child had completed their part of the study, and they were then asked to fill out the questionnaire. At this point, screen sharing was turned off, for privacy. Adults simply moved onto the questionnaire after the main task without any prompting.

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[3]Two-spirit, Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, Intersex, Asexual/Aromatic, etc.

[4] The final block had one less filler trial in this position because it only contained five total trials.

Results

As in Arnold et al. (2021), the dependent measure was whether participants selected a singular (Alex alone) or plural (Alex and another character) interpretation of the pronoun *they* in any given critical trial. As such, only critical trials in which the answer was either Alex or Alex and another character were included in the final models. This resulted in two critical trials being dropped for adults (1.04%), 37 for 5-year-olds (18.50%), and four for 8-year-olds (2.08%).[5]

As demonstrated in Figure 3, all 8-year-olds (100%) were willing to accept Alex using *they* as a personal, singular pronoun. Furthermore, all other participants were also willing to accept this concept, with the exception of four plural responses, one each from four individual 5-year-olds (8.68% of all child participant responses to One-person critical trials) and three plural responses from one adult participant (3.12% of all adult participant responses to One-person critical trials). As for the Two-person context, there was a decrease in percentage of singular interpretation of the pronoun *they* for all three age groups, with 5-year-olds appearing to have the smallest decrease in percentage and 8-year-olds appearing to have the largest decrease in percentage (5-year-olds: 35.07% singular responses; 8-year-olds: 11.11%; adults: 26.04%).

As the dependent variable was binary, logistic mixed effect analyses were performed with item and participant random intercepts. In total, three statistical models were run to determine significant factors. Multiple models were needed due to two issues with the data distribution: (1) there was a lack of plural answers in the One-person context for 8-year-olds, forcing context and age to be examined independently; (2) three questions on the questionnaire were optional, which left gaps in a model that included participants who preferred not to answer these questions.

The first model acted as a sanity check and contained all critical trials and used only context as a predictor. Unsurprisingly, participants as a whole were more likely to interpret *they* as singular in a One-person context than in a Two-person context (β=-3.59, *SE*=0.40, *Z*=-8.92, *p*<0.01).
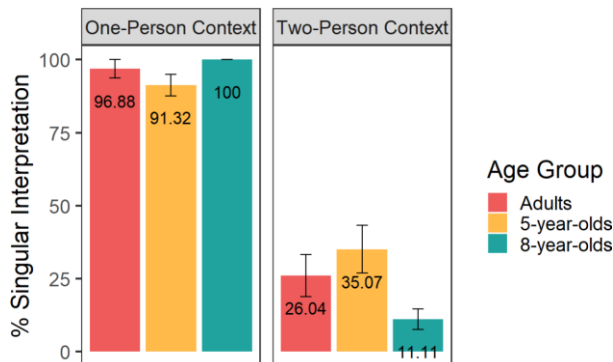

Figure 3: Average percentage of singular interpretation of *they* in included critical trials, split by story context [One-Person (1a) versus Two-person (1b)] and age group.

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[5] The larger drop in trials for 5-year-olds is comparable with Vasquez et al.'s (2023) findings on children and gender-neutral pronouns.

This indicates that both adults and children were willing to interpret *they* as referring to a singular, specified individual in One-person contexts and were less willing to do so in Two-person contexts.

The second model was limited to the Two-person context trials and included factors testing age group in two different ways (such that it was Helmert-coded) in order to address whether children interpreted ambiguous *they* similarly to adults and whether the child age groups differed from each other. One factor compared adults to children (both age groups combined) and the second compared the 5-year-old and 8-year-old groups to one another. This model revealed two main findings. First, when the children are grouped together, there was no significant difference between them and adults (β=-0.26, *SE*=0.48, *Z*=-0.54, *p*≥0.1); children and adults had a similar rate of interpreting *they* as singular in ambiguous Two-person contexts. However, the results of the comparison of the 5-year-olds and 8-year-olds paints a slightly more complex picture. Despite both child age groups behaving similarly to adults when analyzed in the aggregate, there was a significant difference between the two age groups. 8-year-olds were less likely than 5-year-olds to interpret *they* as singular in ambiguous Two-person contexts (β=1.09, *SE*=0.44, *Z*=2.47, *p*<0.05).

The final model built on the previous one by incorporating the social factors gathered from the questionnaire as predictors. Following Kramer et al. (2022), the series of questions regarding a participant's/parent's or guardian's personal knowledge of the 2SLGBTQIA+ community and individuals that are transgender, nonbinary, or use *they/them* pronouns were summed to create an overall Knowledge score. This continuous measure could range from one to 25 with a higher score indicating more familiarity with these groups. Additionally, participants responded to three optional yes/no questions which were added individually. Because these questions were optional, four participants were excluded from the model (approximately equally across age conditions) due to "prefer not to answer" responses.

Despite the removal of several participants' data, the significance patterns were identical of those in the previous model: no significant difference between adults' and children's interpretation of *they* as singular in Two-person contexts (β=-0.28, *SE*=0.51, *Z*=-0.55, *p*≥0.1), but the 5-year-olds interpreted *they* as singular significantly more often than the 8-year-olds when the two child age groups were explicitly compared (β=1.19, *SE*=0.46, *Z*=2.57, *p*<0.05). However, none of the social predictors were found to have a significant effect on the interpretation of ambiguous *they* as singular (Knowledge score: β=-0.02, *SE*=0.06, *Z*=-0.37, *p*≥0.1; member of 2SLGBTQIA+ community: β=0.46, *SE*=0.67, *Z*=0.69, *p*≥0.1; grew up in 2SLGBTQIA+ positive environment: β=0.34, *SE*=0.40, *Z*=0.85, *p*≥0.1; 2SLGBTQIA+ community where they live: β=0.42, *SE*=0.41, *Z*=1.02, *p*≥0.1).

Discussion

The present study aimed to answer two questions: (1) can children successfully map *they* to a single, specific individual? and (2) do children resolve ambiguous *they* like adults? The results of this experiment indicate that the answer to both of these questions is 'yes.' Children of both kindergarten (4- to 5-years-old) and an older (7- to 8-years-old) age can not only comprehend *they* as describing a singular, specified individual (especially when a single referent was salient), but they also patterned similarly to adults in ambiguous cases. All three of these age groups, in turn, produced results similar to those from Arnold et al. (2021). Thus, their conclusions about adults in their study are relevant for both the adults and children in the current study.

To summarize, Arnold et al. (2021) argue that both the grammatical gender of a given pronoun and the perceived conceptual gender – all features of gender expression as made relevant for a given culture (e.g., individuals with long hair are typically feminine) – of a given referent are used in tandem in order to categorize individuals as a certain gender. When interpreting *they* as singular, the fact that the pronoun *they* has neither masculine nor feminine grammatical gender features forces an individual to pick out a referent that they classify as between their mental categorizations of masculine and feminine (a conclusion that is in line with frameworks such as Ackerman, 2019). In the case of ambiguous *they*, a combination of frequency-weighted competition between singular and plural *they* and context-weighted activation of potential referents results in a given individual's ultimate interpretation. Thus, the decreased interpretation of *they* as singular in the Two-person context is the result of the combination of the highly-weighted plural *they* and a discourse context that supports this interpretation. The present study posits that this explanation is valid for not only adults, but children as well.

This conclusion is reasonable for the non-significant differences between adults and children as a whole, but it is not immediately clear how it could account for the significant difference between the younger and older child groups. Instead, we may want to look to alternative sources, like the elementary school curriculum, to explain this difference. The 8-year-old participants in this study are in either second or third grade of the province of Ontario, Canada's curriculum. Based on this curriculum, children are first introduced to grammar rules involving personal pronouns in second grade, and continue to have these rules actively reinforced until fifth grade (King's Printer for Ontario, 2023).

As such, one untested hypothesis is that the 8-year-olds, who had a significantly lower percentage of singular *they* interpretations in ambiguous Two-person contexts, go through some form of overregularization (Marcus et al., 1992) with regard to the pronoun *they*. While these children are still able to accept *they* as singular in a One-person context when other alternatives consistent with the story are not available, having the grammatical rule that *they* is a "plural pronoun" enforced at school during this time may cause children of this age to interpret *they* as plural at a much higher rate when the context makes it possible to do so. To relate this back to Arnold et al.'s (2021) conclusion, the frequency-weighted competition that 8-year-olds face when interpreting ambiguous *they* simply appears to be more heavily weighted towards a plural interpretation than it is for 5-year-olds. However, a future iteration of the present study would benefit from the incorporation of eye-tracking data in addition to the selection data. This online data would provide further insight into how both children and adults resolve ambiguous *they*, including which potential answers are considered and for how long before a final selection is made.

Finally, there is the question of why none of the social predictors analyzed were found to affect the interpretation of *they* as singular, despite other studies finding significant effects of familiarity with and/or attitudes toward singular *they* and gender nonconformity. Our questionnaire even used many of the same questions as Kramer et al. (2022), who found significant effects of familiarity on the willingness to produce singular *they*. We suspect that the lack of significance here is due to the relatively small number of child participants (per age group) ultimately included in the final analysis, making individual differences analyses difficult. Beyond simply gathering more child participant data, future research could address this issue by having both children and their parent/guardian participate in the same experiment. If children's interpretations mirror those of their parents'/guardians', we may be safe in assuming that their parent's/guardian's questionnaire responses reflect the child's own familiarity. If, however, a child and their parent's/guardian's interpretations are distinctly different, that would suggest that the familiarity data collected in this study is not a good approximation of children's experience with singular *they* and gender nonconforming individuals.

To conclude, through a partial replication of Arnold et al. (2021), we found that children can successfully map the pronoun *they* to a singular individual (at least when the provided context unambiguously denotes a single person being involved) and also that they interpret ambiguous *they* similarly to adults. However, no significant social factors were found, despite previous research that suggested that familiarity was the strongest predictor of singular *they* usage. Future research is needed to explore whether this lack of effect was due to how the data was attained or if it, in fact, reflects the true relationship between familiarity and interpretation of *they* as singular in this experiment. In addition, although children seem to pattern much like adults, significant differences between the kindergarten-aged group and the older child age group suggested that children may undergo a form of overregularization at around the age of 7- to 8-years-old, which may lead to a stronger prescriptive or traditional usage of *they*. Overall, these findings provide a novel look into how children approach ambiguous pronoun resolution. They not only shed light on how children interpret the pronoun *they* in ambiguous cases, but also give way to a number of avenues for future study into how children acquire, use, and interpret this pronoun, including how acquisition of conceptual gender and gender roles may interact with it.

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