

Variation in acceptability of neologistic English pronouns

Ell Rose, Max Winig, Jasper Nash, Kyra Roepke & Kirby Conrod*

Abstract. This acceptability-judgment survey of English neopronouns, including *xe*, *fae*, *ey*, and *ze*, shows that while neopronouns are not fully ungrammatical for most English speakers, they are rated as less grammatical than canonical third-person singular pronouns like *she*, *he*, and *they*. We found that several social variables correlated with ratings of neopronouns in sentences, including age, gender, and sexual orientation. The neopronouns that bear orthographic resemblance to canonical pronouns were rated highest, and metalinguistic comments from participants identified that analogy was an important factor in whether they found neopronouns grammatical.

Keywords. non-binary gender; neopronouns; nounself pronouns; transgender; sociolinguistics; neologisms

1. Introduction. Third-person singular pronouns in English show gender-related features. *He*, *she*, and *they* are very widely used as third-person singular animate pronouns in English (for a review of *they* as a singular, see Bjorkman 2017). Neologistic pronouns, which we refer to as neopronouns, are pronouns which are coined as part of an intentional metalinguistic process; these include pronouns like *xe*, *fae*, and *ey* (nominative forms given; “Gender Census 2021,” 2021). Neopronouns are less widely used than canonical pronouns, and have been proposed to not be a true part of the grammar of English. In this paper we ask three related questions: how do social variables affect the acceptability of neopronouns; which neopronouns are rated as more natural; and how do those ratings compare with canonical pronouns in comparable grammatical contexts?

We hypothesize that social variables such as age, gender, gender orientation (cisgender vs transgender), and other identity categories will correlate with how people rate sentences with neopronouns, replicating the findings of Hekanaho (2020). Second, we hypothesize that neopronouns will be rated as less natural than canonical pronouns, and that neopronouns with forms analogous to canonical pronouns (e.g., *ey* is analogous to *they*) will be rated higher than those that are not. This project also seeks to expand on Hekanaho’s (2020) findings to investigate the sociolinguistic patterns related to a speakers’ own pronoun use as well as exploring individuals’ attitudes towards neopronouns.

These results will lead to a better understanding of what social and demographic factors affect the adoption of novel language around non-binary genders, which may improve linguistic inclusivity. Misgendering is linked with poor mental health outcomes in transgender people (McLemore 2015, 2018), and we hope that better understanding of the (socio)linguistic patterns of neopronouns may eventually lead to a reduction in linguistic misgendering. Also implicated is the public metalinguistic perception of novel lexical items in closed classes (cf. Muysken 2008), since neopronouns may have unique traction as compared to other closed-class lexical categories.

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2. Background. Neopronouns are used in the same English syntactic contexts as canonical third-person pronouns. Like any English pronoun, they have nominative, accusative, genitive, and reflexive inflected forms. Because English third-person pronouns are also marked for gender,¹ neopronouns tend to be used most by individuals who are non-binary or genderqueer (Miltersen 2016).

The disproportionate use of neopronouns among gender-marginalized people makes studying their acceptance in English especially salient. Pronouns constitute one important part of an individual’s linguistic and discursive construction of their gender identity and presentation (cf. Butler 2011), and thus those whose gender presentations are non-normative in some way are particularly vulnerable to gender-based oppression and misgendering (McLemore 2015, 2018). Prior research has also shown that transphobic attitudes are correlated with individuals’ linguistic perception of singular *they*, and we anticipate that similar effects may be present in the evaluation of neopronouns (Bradley 2020; Conrod 2019).

The linguistic and sociolinguistic properties of neopronouns (in English or any other languages) have been under-researched thus far, with a few notable exceptions. Hekanaho (2020) conducted a usage, acceptability, and attitudinal survey that demonstrated that neopronouns were perceived by participants as less acceptable than singular *they*, and that there was meaningful variation in acceptability based on social factors. Cisgender women and transgender people (of any gender) tended to rate neopronouns higher, creating a clear divide in perception of neopronouns between cisgender men and other participants. We sought to replicate these findings and investigate additional social factors that could influence perceptions of neopronouns.

2.1. HISTORY OF NEOPRONOUNS. The divide between cisgender men and all other participants found by Hekanaho (2020) parallels the historical metalinguistic debates over neopronouns, originally rooted in finding alternatives for using the masculine *he* as a generic or epicene pronoun. While singular *they* has existed as an epicene pronoun for centuries (Baron 2020; Bjorkman 2017), the generic *he* – which privileges men – has been widely used, especially in more formal contexts. Curzan (2003) tracks metalinguistic commentary regarding generic *he* and singular *they* as an important topic of the emergence of English prescriptivist grammarian writings in the 18th and 19th centuries. The discourse in the 19th century around the appropriateness of a masculine generic pronoun resulted in the semi-mainstream development of neologistic pronouns as a gender-neutral alternative to *he* (the term *neopronoun* was not coined until the late 20th century) (Baron 2020). While most historical debates centered on the generic use, some were coined by non-binary people to better reflect a gender beyond *he* or *she*. Most of the early proposals reported by Baron were blends of the pronouns *he* and *she*, such as *hiser* or *hesh*. These were intended to be used in generic contexts where gender was unknown or unknowable (e.g. “*everyone should open hiser book*” or “*the runner grabbed hiser ribbon*”). Supporters of these blended pronouns argued that the familiarity of the morphophonological

¹ While we categorize the singular use of *they* as a canonical pronoun, its current sociolinguistic status may be in flux; see Bjorkman 2017; Conrod 2019; Kannelly & Cowper 2017 for discussion of the morphosyntactic manifestation of gender features and their apparent absence on *they*. It is beyond the scope of this paper to propose a featural specification for any particular neopronoun that is compatible with any of the syntactic theories used by these authors; we leave that for future work.

form of these pronouns and case inflections would make implementation easy. However, singular *they*, which had already been in use since Middle English, was ultimately adopted much more widely than any of the blended forms proposed; this is reflected in Hekanaho’s (2020) findings.

However, just as is the case today, some language commentators rejected singular *they* based on the claim that it constituted a disagreement in number between antecedent and pronoun (see Curzan 2003 for a review of grammarian objections along these lines). Attempts to coin neopronouns did not stop, and many were coined although none achieved notable mainstream adoption. Baron (2020) provides a thorough review of these forms, which in addition to the blended forms also included *thon* (a blend of *this one*) and others. Ultimately, these historical examples serve as a reminder that top-down efforts towards language engineering often fail. However, we find that the current-day use of neopronouns as part of genderqueer and non-binary gender expressions do not constitute an attempt at top-down language engineering; thus, we anticipate that the trajectories of these modern neopronouns may not parallel their historical counterparts.

2.2. 21ST CENTURY NEOPRONOUNS. Today, many of the echoes of the metalinguistic discourses of the 19th century remain. There continues to be a wide variety of neopronouns extant in English, and there is no consensus or mainstream adoption of any single form. Based on their appearance in various English corpora, the non-binary-specific resurgence of neopronouns such as *xe* and *ze* seems to have occurred on the Internet some time prior to 2010 (but likely not long before that). Their appearance online, mostly in blogs and online creative writing, indicates that this resurgence is likely led by young people (Hakanen, 2021). The 2022 Gender Census, a survey of non-binary (broadly construed) people, found that the top reported pronouns respondents identified with included *xe*, *fae*, *ze*, and *ey*; of the historical neopronouns reported by Baron, only *thon* was among the top 15 neopronouns selected by participants, while only one respondent used *hesh* in the 2021 survey (“Gender Census 2021,” 2022).² The inflectional paradigms of the top neopronouns selected in the Gender Census show morphophonological similarities with either the paradigms of canonical pronouns or the paradigm of a blended paradigm (as in (1a)).

- | | | |
|-----|--|---|
| (1) | [Nominative / accusative / genitive / reflexive] | |
| | (a) <i>ze/hir/hirs/hirself</i> | Hybrid of <i>he</i> and <i>she</i> paradigm |
| | (b) <i>xe/xem/xyr/xyrself</i> | Follows <i>they</i> paradigm |
| | (c) <i>fae/faer/faers/faeself</i> | Follows <i>they</i> paradigm |
| | (d) <i>ey/em/eir/emself</i> | Follows <i>they</i> paradigm |

These inflectional paradigms suggest that familiarity, whether in phonological or morphophonological form, is important for the successful uptake of neopronouns.

Another type of neopronoun that diverges from this pattern is likely more recent. Nounself pronouns are a subsection of neopronouns that are derived from an existing noun; *fae* in (1c)

² We have some methodological concerns about the design of the Gender Census, and therefore cite it carefully and without wanting to extrapolate its findings as sociolinguistically representative of any community. In particular, the wording of the question about pronouns specifies: “*Supposing all pronouns were accepted by everyone without question and were easy to learn, which pronouns are you happy for people to use for you in English?*” Obviously, this wording entails that the results do not tell us anything about what actual linguistic behaviors people are partaking in.

above is one such example. Other nounself pronouns include *void*, *star*, and *bun* (Gender Census 2021, 2022). Miltersen (2016) surveyed nounself pronoun users on Tumblr (a social media blogging platform) and found incredible diversity among the pronouns entered into a free-response question, with many pronouns occurring only once in the data set. Miltersen also finds that nounself pronouns in particular are often used to reflect more than just gender identity: when asking nounself pronoun users on Tumblr about why they use their pronouns, gender comprised only about half of the responses, with other reasons including race or ethnicity, kintype, personality, phonetic, visual, or semantic appeal, ability, or a nonspecific sense of “rightness” (Miltersen 2016). However, unlike with canonical *he* and *she* pronouns, where there is an established gendered meaning, the identity meanings of nounself pronouns are not likely to be interpreted by interlocutors. The stigma associated with nounself pronouns—likely due to a combination of novelty, opacity, and bigotry—complicates the use of neopronouns, leading some to only use them in certain, often online, contexts. Further studying the acceptability of neopronouns is essential for understanding how, when, and why they are accepted and rejected, enabling further awareness about what can be done to support those who use them.

3. Methods. We conducted a large-scale acceptability survey (n=1,000) run on Qualtrics during July of 2022. Recruitment of participants was conducted through social media and email lists, and the survey was also shared by participants and friends of the researchers. Participants were asked to only take part if they were over 18 years of age and were comfortably fluent users of English.

After giving informed consent, participants were instructed to read the stimuli sentences and rate them on a Likert scale from 1 “completely unnatural” to 7 “completely natural.” After rating the stimuli, participants completed a demographics questionnaire. This was followed by five open-ended questions where respondents could provide comments on their perceptions of the preceding stimuli and gender neutral pronouns more broadly, including both neopronouns and singular *they*. The average time to complete the survey was 30.3 minutes.

3.1. STIMULI. The stimuli consisted of 54 sentences between 9 and 18 words long, each containing an antecedent and a pronoun. The types of pronouns include neopronouns (*xe*, *ze*, *ey*, *fae*) and canonical pronouns (*she*, *he*, *they*) as well as ungrammatical control pronouns that were inflected for syntactically anomalous case (*him*, *their* as subjects); all pronouns in all stimuli were in positions where they would normally appear in nominative case. The types of antecedents included proper names (masculine, feminine, neutral), definite animate singular NPs (*the detective*, *the movie star*), and two types of ungrammatical controls: plural animate NPs as number mismatches (*the horses*, *the office workers*) and singular inanimate NPs as animacy mismatches (*the canyon*, *the shirt*).

The neopronouns, canonical pronouns, and case-errored pronouns were all paired with each type of proper name, definite animate singular NPs, and plural animate NPs. Neopronouns were additionally paired with the two ungrammatical control antecedents – plural animate NPs and singular inanimate NPs. This meant that the stimuli included 24 sentences with neopronouns (8 of which were ungrammatical controls), 18 sentences with canonical pronouns, and 12 sentences with case-errored pronouns. A full list of the stimuli and their conditions is given in our online supplementary materials. Select examples of target sentences are given in (2)-(7) below.

- (2) When the attorney looked up, xe made eye contact with the judge.
- (3) If Casey runs fast, xe can get to the train in time.
- (4) Betsy knew ey needed to make extra food if family was coming over.
- (5) Last Saturday, Edmond said ze would buy some aged brie for the barbecue.
- (6) The car looked like xe was about to break down.
- (7) The beavers decided fae needed to work together to build a dam.

In this pilot study, all participants saw all 54 stimuli. Due to a Qualtrics error, the first 121 participants were shown the stimuli in order of condition; however, the other 979 participants saw the stimuli in random order, with only one sentence and Likert scale option appearing on the screen at a time.

3.2. NAME SELECTION. In order to generate names that were plausibly masculine, feminine, and gender-neutral, we developed a naming protocol for stimuli creation. All names were sourced from the U.S. Social Security Administration; in some cases we altered the spelling of a name to increase gendered or general recognizability, usually only changing one letter (e.g. *Therese* → *Theresa*, *Jessie* → *Jesse*).

For gender-neutral names, we used data from an article by Andrew Flowers from *FiveThirtyEight*. Building off the work of Mona Chalabi, Flowers used Social Security Administration data to compile a list of names with at least one third male users, one third female users, and a minimum of 100 users in total. The article included an interactive table which we organized by the total number of people with each name. In creating stimuli, we used names in order from most to least common, regardless of the gap between male and female recipients of the name.

For masculine/feminine names, we used Social Security Administration data organized by Derek Howard to determine the probability of a given name belonging to a male or female person. Any name used exclusively by males or females had a probability of 1, with any names split evenly across the legal sexes being 0.5. The vast majority of names provided have a probability of 1, most likely due to a small population of users, indicating that they may not have the intended feature of being *recognizable* as gendered by the broader population, even if the name is, in fact, gendered. Thus, for the pilot survey stimuli, we chose names with a probability less than 1 and greater than .9995 of being assigned to a single gender. From those options, names were chosen based on personal recognizability judgements with the intention of using a variety of different names.

We used the names coded based on this protocol as masculine, feminine, and neutral as antecedents for all pronouns, including case error pronouns and canonical pronouns (*he*, *she*, *they*). This means that, among the stimuli we constructed for canonical pronouns, there are 2 stimuli with apparent gender mismatches (masculine name + *she*, feminine name + *he*) as well as 3 stimuli that included singular *they* together with proper names (masculine, feminine, and neutral).

3.3. DEMOGRAPHIC QUESTIONNAIRE. The demographics questionnaire consisted of 14 questions, all of which were optional. The demographics questionnaire included questions about gender, gender orientation (cisgender/transgender), sexual orientation, age, race, ethnicity, location of origin, location of residence, and other language fluency. For gender, race, and sexual orientation, participants were given two questions: first a free-response question, then a question

about what category they would like to be included in for the purposes of the survey. A full list of demographic questions is given in Appendix A wording from the two questions about gender is given in (8)-(9) below. (8) is a free response question, and (9) offers the options listed in (a)-(j).

(8) What is your gender?

(9) For the purposes of this study, which of these groups would you like to be included in?

Check all that apply

- (a) Woman
- (b) Man
- (c) Non-Binary
- (d) Genderqueer
- (e) Genderfluid
- (f) Agender
- (g) Demigender
- (h) Questioning/unsure
- (i) None of these apply
- (j) Do not wish to answer

Finally, participants were presented with five optional and open-ended questions aimed at eliciting metalinguistic commentary and information about participant familiarity with and attitude towards neopronouns, singular *they*, and the concept of gender neutral pronouns more broadly. These five questions are listed in (10) below.

- (10) (a) What elements of these sentences stood out to you, and was there anything you'd suggest changing?
- (b) Have you heard of neopronouns? In what context/where did you learn about them?
- (c) How frequently do you use neopronouns in your daily life? For yourself or for others?
- (d) Do you think that it's bad grammar to use the pronoun *they* to refer to only one person?
- (e) Do you think English language would benefit from ways to refer to people outside of male and female genders?

4. Results. The survey received 1,000 responses. The participants' ages ranged from 18-85, with a mean age of 36.8. The participants included 530 women, 287 men, and 183 who marked both or neither of these categories. 259 participants marked *non-binary*, which overlapped with all of the aforementioned groups. 359 participants marked themselves as "straight" or "heterosexual" and 641 did not. The largest group by sexual orientation was people who marked "bisexual," 369 participants. 87% of participants identified themselves as white. A full breakdown of sexual orientation, gender identity, and racial identity are included in our online supplementary materials.³

The study included two types of controls: ungrammatical controls, and grammatical controls. For grammatical controls, we used the same sentence frames as the neopronouns stimuli, but instead included canonical pronouns (*she, he, they*) with singular antecedents of each

³ Online supplementary materials are at <https://osf.io/e5sja/>.

type. Among all participants, canonical pronouns were generally rated quite high: the mean rating of all canonical pronouns for all antecedent types was 5.1 (s.d. = 2.4). *They* was rated just slightly higher overall, with a mean rating of 5.6 among all participants (and 5.4 when plural controls are excluded). We attribute this to the fact that singular *they* does not trigger gender-mismatch effects, since *he* was rated very low with feminine proper names and the reverse was true with *she*, while *they* did not appear to trigger these mismatch effects; see Conrod 2019 for further details on this).

We performed a logistic regression that included pronoun type (canonical pronoun, neopronoun, or case error controls), antecedent type, participant age, whether participants were LGBT+, and participant gender as independent variables, with the Likert scale rating response as the dependent variable. Age, participant gender, pronoun type, and antecedent type were all significantly correlated with ratings ($p < 0.05$), *except* for participants who were men.

4.1. PRONOUN TYPE AND ANTECEDENT TYPE. The ungrammatical controls included case error pronouns, where *him* and *their* were used in subject positions. Overall these were rated very low, with a mean of 1.3 (s.d.=0.8). No group of participants rated these case error controls noticeably higher. Neopronouns were rated lower than canonical pronouns, but higher than case error controls. Taken together, the mean rating of neopronouns among all participants was 3.5 (s.d.=2).

The other type of ungrammatical controls included in the study were two antecedent types: inanimate singulars (*the chair ... she*) and animate plurals (*the clowns ... she*). These antecedent controls were not rated as universally low as the pronoun controls, in part because *they* was rated higher with the control antecedents in general. Ungrammatical antecedent control conditions were rated very low overall (inanimate singular NP mean rating = 2.16, animate plural NP mean rating = 2.26).

Of the neopronouns, *ze* was rated the highest (mean=3.9), followed by *xe* (3.8), *ey* (3.4), and, finally, *fae* (2.9). A logistic regression indicated the four neopronouns were significantly different from other pronouns ($p < 0.05$). Neopronouns were rated overall lower than canonical pronouns (mean=5.1), but significantly higher than ungrammatical controls (mean=1.3, $p < 0.05$). Figure 1 shows the relative ratings for each pronoun and antecedent type.

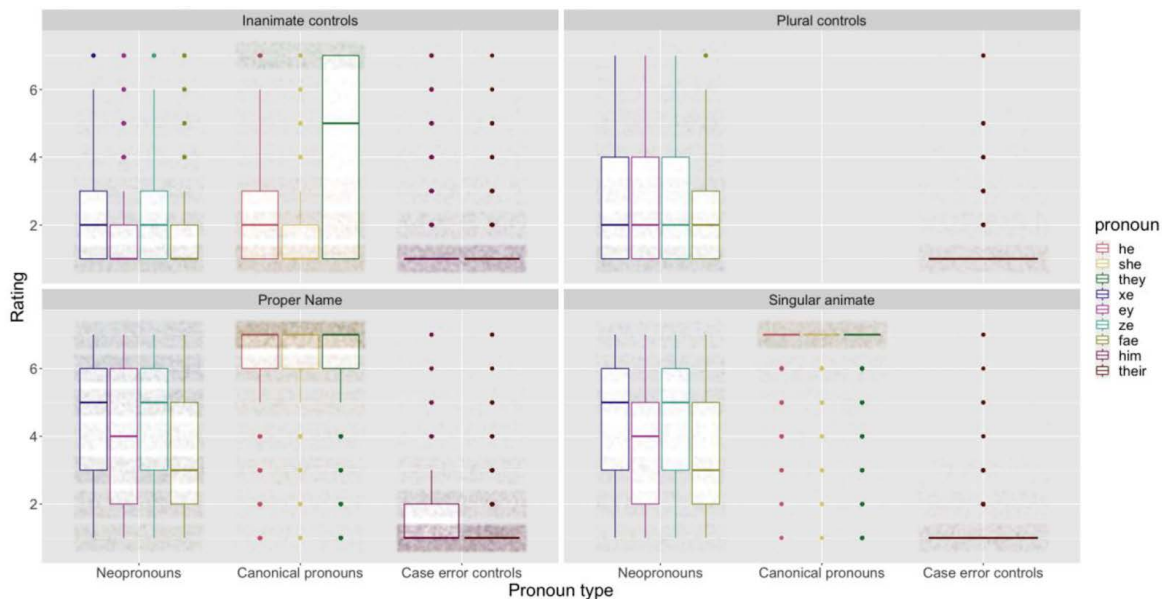


Figure 1. Pronoun ratings for each antecedent type

4.2. SOCIAL VARIABLES: AGE, GENDER, AND LGBTQ+ IDENTITY. Age had a significant effect on ratings of neopronouns (Fig. 2), with younger participants rating neopronouns higher than older ones, but not on canonical pronouns nor ungrammatical controls (in a logistic regression; $p < 0.05$). There was *not* an interaction between age and pronoun type for ungrammatical controls (which were uniformly rated low regardless of age)⁴. In general, younger participants rated stimuli higher than older participants. Ungrammatical controls were rated at floor regardless of age, and canonical pronouns were rated very highly regardless of age.

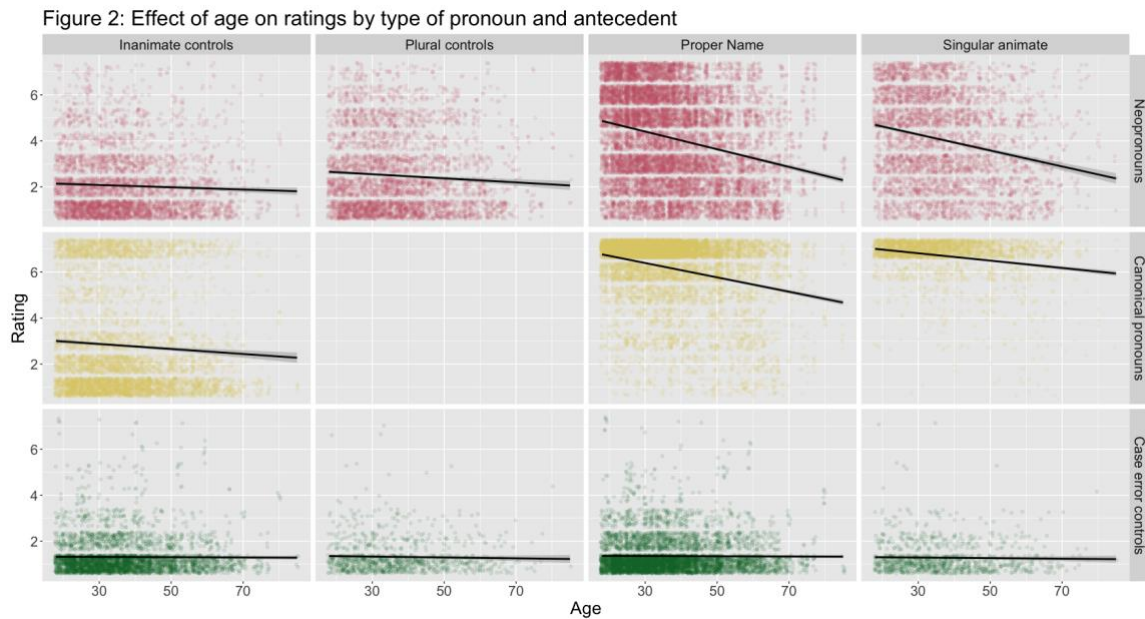


Figure 2. Effect of age on ratings by type of pronoun and antecedent

Gender also affected ratings of pronouns; people who were neither men nor women rated neopronouns higher ($p < 0.05$); see Figure 3. For the purposes of quantitative analysis, the category “Other gender” encompasses those who selected either both “Woman” and “Man” or those who selected neither of these options. The category of “Woman” includes everyone who selected “Woman” but not “Man”. Men and women rated canonical pronouns towards the ceiling, and both rated case error controls at the floor. People classified as “Other gender” differed from the other categories in two notable ways. Firstly, all neopronouns were rated higher on average. Secondly, other genders’ ratings of singular *they* are much closer to the ceiling than it is in either of the other categories.

⁴ We also note that the interaction between age, pronoun type, and antecedent type – wherein older participants rated canonical pronouns lower when they appeared with proper names – is likely an effect of the fact that proper names included gender mismatches (*Bob... she*) and singular *they* (*Jules ... they*). Conrod (2019) gives an account of why proper names and they should show this effect; it also is consistent with findings by Conrod et al. (2022), Hernandez (2020) and Camilliere et al. (2021).

Figure 3: Difference in ratings of neopronouns by gender

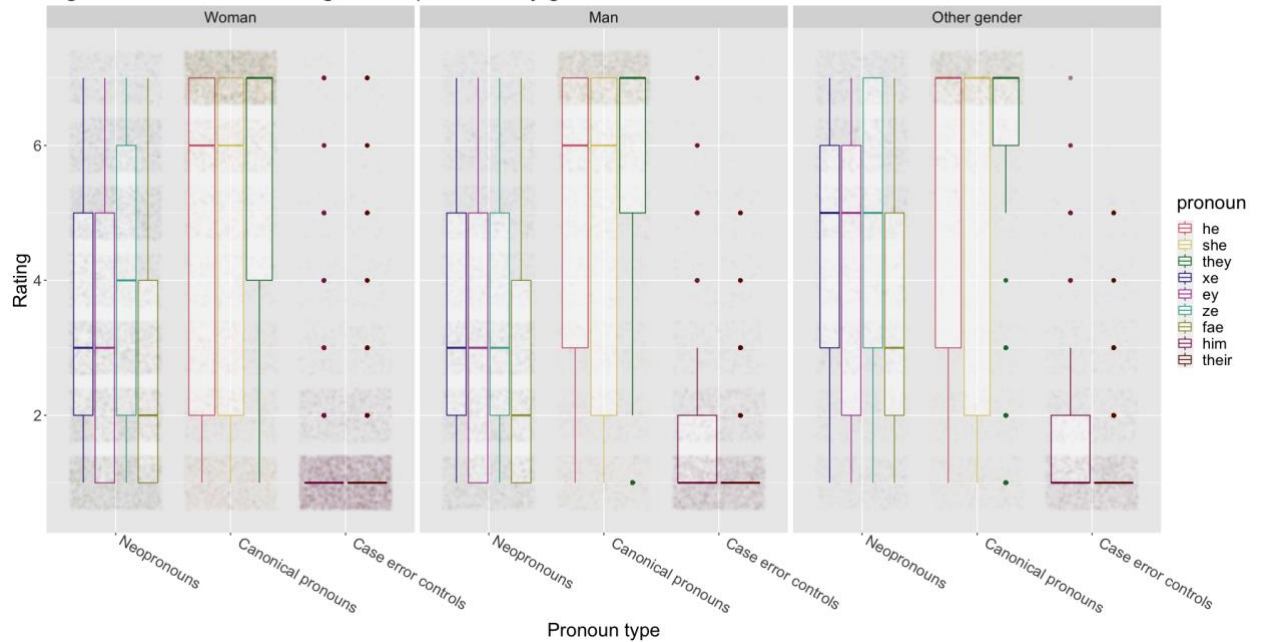


Figure 3. Difference in ratings of neopronouns by participant gender

LGBTQ+ participants overall found neopronouns more acceptable. Those classified as LGBTQ+ include all participants who were neither men nor women, as well as those who marked their sexuality as anything except *straight* or *heterosexual*. Additionally, LGBTQ+ respondents rated singular *they* significantly higher than other respondents. Figure 4 below shows the interaction between pronoun type, age, and LGBTQ+ status.

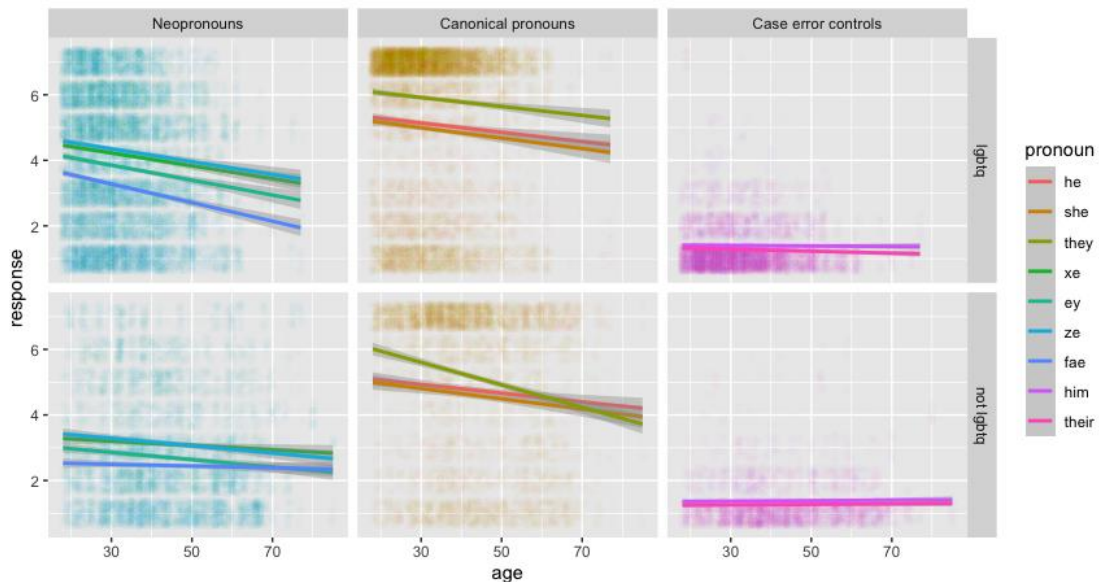


Figure 4. Effect of age for each pronoun type by participant LGBTQ+ identity

Participants also reported their own pronouns of reference. 32 participants reported that they use *ze/hir*, *xe/xyr*, *ey/em*, or *fae/faer*; 291 participants answered that they used *they/them*, and 620

participants checked only *she/her* or *he/him*. 5 chose not to share their pronouns and 52 reported that they use other pronouns than the options previously listed. Figure 5 shows that those who use neopronouns themselves (unsurprisingly) rated neopronouns much more highly than other groups ($p < 0.05$ in a logistic regression); those who use only canonical pronouns themselves rated neopronouns significantly lower than other groups ($p = 0.046$).

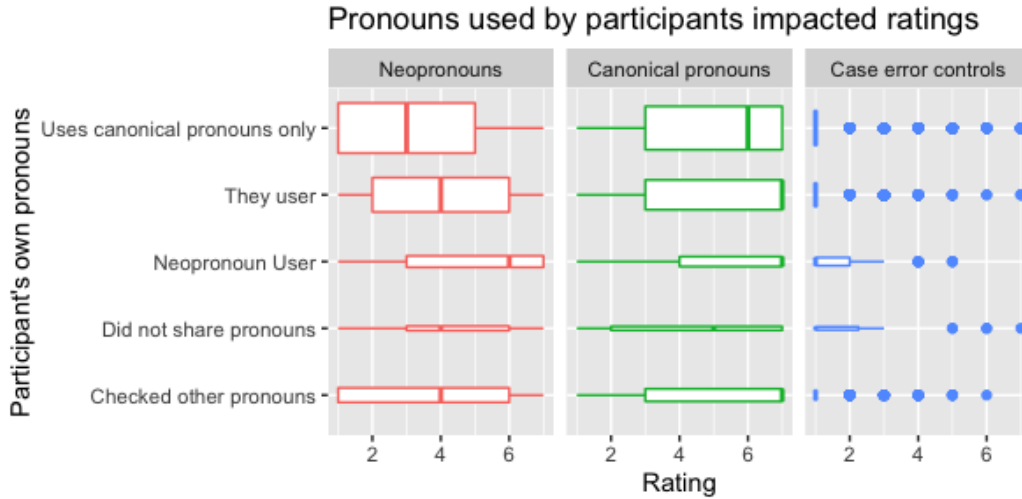


Figure 5. Effect of participant's own pronouns of reference on ratings of pronoun stimuli

4.3. FREE RESPONSES AND METALINGUISTIC AWARENESS. To analyze the free response data, we began by compiling all the comments, removing stopwords, and measuring word frequency to create a word cloud of the most common words used in response to the question of what participants noticed about the sentences (shown in Figs. 6-7). By far the most frequent word in response to this question was “*pronouns*”, with 539 occurrences. “*Neopronouns*” was the second most frequent word used, with 277 occurrences. *Fae* was the only specific neopronoun mentioned with 160 explicit mentions. Other notable words that appeared frequently in these responses are “*inanimate*”, “*objects*”, and “*singular*”, all of which point to the ungrammatical controls.

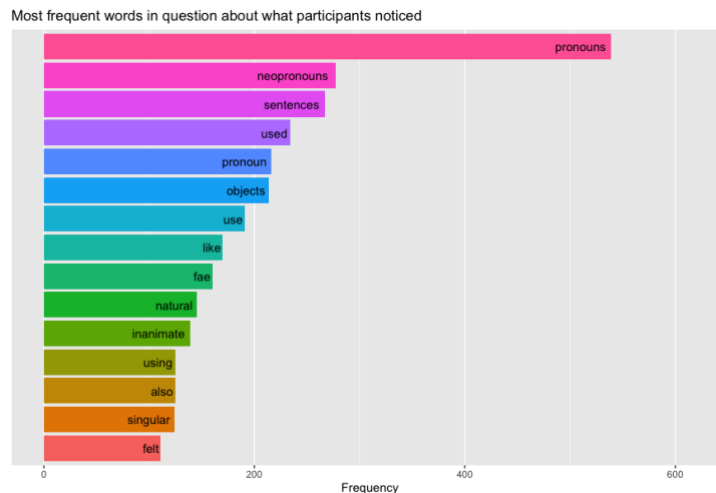


Figure 6. Most frequent words in free-response question

there were also respondents who found that the survey itself helped neopronouns feel more natural. One noted “*familiarity made it easier to understand, so the third time a pronoun was used [in the survey], it felt more natural*” (cisgender woman, 34). Another agreed, saying “*The more I heard more of the same examples consecutively, the more natural they sounded*” (cisgender man, 26). By having the ability to practice neopronouns, even in a controlled environment, these participants were able to adjust their judgements.

Though many reported discomfort with neopronouns, there was also pushback on the idea that neopronouns needed to feel natural to be acceptable. One respondent stated that “*the fact that I hear it as unnatural does NOT mean we shouldn't do it*” (cisgender woman, 49). For people with similar responses, there was an emergent theme that a linguistic form did not necessarily have to be comfortable to individual speakers in order to be a valid form of the language. Social environments that open people up to unfamiliar language can also impact the way they understand something being “natural”. One respondent explained that “*being around a lot of queer and trans people, I've learned to ignore the thing in my brain that says THAT IS WRONG when there are unfamiliar pronouns that people use*” (non-binary man, 22). Environments where unfamiliar language is common, such as LGBTQ+ spaces, might be the key to fostering language change. When people are comfortable using new terminology and grammar, it is easier for them to adopt new patterns into their personal language.

5. Discussion. Overall, the vast majority of participants understood that neopronouns were the focus of the study (even if they were unfamiliar with the word “neopronoun”). However, there were also respondents who were confused by the stimuli. One participant noted, “*at the beginning, I believed the XE, FAE, etc. pronouns were supposed to be read as “he” or “they” and were there as a nod to those who prefer them*” (cisgender woman, 77). Another commented, “*I didn't understand the survey. I am not familiar with xe fae etc and so did not understand that that was the focus of it. At first I took de [sic] to stand for he or she*” (cisgender man, 75). At the end of the survey, when asking if participants had heard of neopronouns, we included a scroll-over definition to explain the concept to those who were unfamiliar with it.

Overall, the quantitative results suggest that neopronouns are far from completely unacceptable to many users of English—as shown by the contrast with the extremely low ratings on the ungrammatical controls (case-mismatched pronouns). Instead, neopronouns appear to be on the rise, or at least more highly rated by younger participants and those who are neither men nor women. However, they remain somewhat less acceptable than the novel (definite, specific) form of singular *they*, as well as the canonical pronouns *she* and *he*. Because neopronouns have been coined at various points in the history, but are regarded to have not achieved widespread use, our results bring into question whether acceptability or frequency of production is the best indicator of uptake of a linguistic form.

As shown in the free responses, analogy was a crucial tool in helping participants make sense of neopronouns in context. Many participants expressed that they rated neopronouns higher if they could connect them to a canonical pronoun. For example, one participant said that “*my grammaticality judgements were heavily influenced by how similar the neopronoun was phonologically to the ‘conventional’ he/she/they trinity*” (cisgender man, 20). Another respondent found analogies beyond the canonical pronouns included in our stimuli: “*I voted sentences higher if the pronoun had a phonetic resemblance to a name ('fay') or a traditional pronoun (ze is like 'they' in a French accent)*” (cisgender man, 30). Analogy, as it has been used by many of our participants, allowed people to understand new patterns. By coining neologistic pronouns that have similarities to canonical pronouns, it may become easier to open a closed class.

There were also some cases when analogy made it more difficult for people to process neopronouns in a sentence. Many of these difficulties surrounded *fae*, due to its similarity to a proper name (*Fae* or *Fay*) or a common noun (*fae*, related to *faeries*) and they rated *fae* lower for these reasons. One participant noted that since “*fae/ey naturally subbed in for they - ‘fae is’ sounded as unnatural as ‘they is’ and it made more sense for it to be ‘fae are’*” (non-binary person, 29). Bradley et al. (2019) investigated the gendered associations that may be made with particular pronouns by asking participants to match photos to a description that used either *she*, *he*, *they*, *ze*, or no pronoun, referring to the individual as *the student* instead. In the case of *ze*, there was a clear bias towards the masculine images, primarily in those who were previously unaware of *ze* pronouns, which was explained as an assumption that *ze* was a typographical error in attempting to write *he*.

The question of whether our data indicates a change in the English language remains unclear at this point. As a closed class, pronouns have been the site of significant debate as to whether or not new items can be created within the class (e.g. Baron, 2020, i.a.). The acceptability of neopronouns, especially in young people, suggests that there is some potential for new terms being coined and then accepted into the language. However, this raises more questions as to what language change truly consists of. Are neopronouns a part of the language if only a small group is using them? Does our data suggest a change in the language, or are neopronouns a linguistic form primarily indexing membership of a particular social category, which young speakers will ultimately age out of? The data we present does not give strong evidence towards either of these; longitudinal studies may be warranted in the future to explore the possibility that neopronouns are age-graded rather than undergoing community-wide shift.

If a linguistic form (like *ze*, the highest-rated neopronoun in our study) is very widely accepted by some parts of the population, but is not used frequently, should linguists consider that form to be extant and robust? It may be appropriate to compare neopronouns to other linguistic constructions that are very low-frequency, but nevertheless have implications for the analysis of the grammar, such as resumptive pronouns in syntactic islands, parasitic gaps, and other low-frequency morphosyntactic phenomena. Furthermore, a binary distinction between low and high-frequency forms is an oversimplification which may obfuscate the underlying sociolinguistic patterns that predict the forms’ future transmission and diffusion. In the case of neopronouns, for example, the correlation between ratings and age may support an Apparent Time analysis (Weinreich et al., 1968) meaning that these forms are an incoming variant in an ongoing language change. It may not be the case that any single neopronoun becomes used by the majority of English speakers, but there may be a threshold of use beyond which these forms, even if used by a minority of speakers, become accepted much more widely in the mainstream.

One limitation of our focus on acceptance of neopronouns is the difference between explicit reports and implicit behaviors. What people say they do and what they actually do don’t always match, especially when results are filtered through participant’s potential desire to appear more politically correct. One participant expressed the impulse to rate neopronouns higher than they sounded “*as an expression of their social/political commitments*” (cisgender man, 30). Another felt “*annoyed because I felt my responses that they do not sound natural (which is honest) would be conflated with disapproval of those who use them (which I do not)*” (cisgender man, 64). These comments imply that social desirability bias may impact offline judgment tasks and self-reports in studies of highly salient linguistic forms like neopronouns. In order to learn about implicit behaviors, additional approaches and methodologies are needed. To address this, the next phase of this project will include sociolinguistic interviews in the hopes of eliciting neopronouns in the context of conversational speech; realtime psycholinguistic measures may also be warranted, such as eye-tracking, self-paced timed reading tasks, or others.

6. Conclusion. The data collected in this survey supports the existence of neopronouns as a part of the English language, particularly in the grammars of young speakers and those who identify as neither women nor men. Additionally, we found evidence that suggests that the acceptability of neopronouns is correlated to their morphophonological form being analogous to canonical pronouns.

Though a large-scale acceptability study is a step towards a greater body of knowledge around neopronouns, it is only the first step in understanding them fully. Learning about the production and perception of neopronouns requires different methodologies. This survey focuses on perception of neopronouns; to target production, in future work we will conduct a series of interviews to study how people produce neopronouns in natural speech. Longer-term research is also necessary to determine whether or not neopronouns support an Apparent Time analysis.

The study of neopronouns is both valuable and necessary. A non-negligible amount of English speakers use neopronouns for themselves and others. For these people, discourse around neopronouns is central to their lived experience, not just an academic topic to explore. On a broader scale, understanding neopronouns has implications for language change on a broader level. Adoption and learnability of neopronouns may be related to other types of grammatical flexibility in closed lexical classes, and we hope that these findings may be applied towards decreasing misgendering for all, not just English users of neopronouns.

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