

# The Dutch gender-neutral pronoun *die*: more accepted for generic than for specific reference

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#### Abstract

Research on English *singular they* and Swedish *hen* indicates that gender-neutral pronouns for specific (nonbinary) reference are less accepted than for generic reference. This raises the question whether this greater acceptance of the generic usage of gender-neutral pronouns also applies to Dutch, a language in which the generic use of the masculine pronoun *hij* is still common, and in which the metadiscourse on gender-neutral pronouns mainly focuses on its nonbinary usage. We therefore conducted a study on the perception of Dutch gender-neutral *die* for both generic and specific reference in comparison to binary pronouns. We found that binary pronouns were preferred over gender-neutral *die* and that *die* for generic reference was more appreciated than for specific reference. All in all, the results suggest that for generic reference, the gender-neutral pronoun *die* shows potential as a more gender-inclusive alternative to pair forms consisting of binary pronouns and to masculine generics.

**Keywords:** gender-neutral pronouns, nonbinary pronouns, genderinclusive language, comprehensibility, appreciation, masculine generics, Dutch

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#### 1. Introduction

In Western languages which make the grammatical distinction between masculine and feminine forms, personal pronouns have been at the forefront of debates about gender in language for about 50 years now. Roughly from the 1970s onwards, feminists have criticized the use of masculine 3rd person pronouns for generic reference, i.e., to persons of any gender, or to a group of mixed gender, on the grounds that these masculine generics exclude women and render them invisible (e.g. Bodine 1975; Brouwer 1980; Paterson 2014, 90 ff; Romein-Verschoor 1975). In the decades that followed, these claims of linguistic androcentrism have been backed up by empirical research, which has established that in several languages, masculine generic pronouns are not processed in a gender-neutral way, and indeed evoke a male bias in readers (Gastil 1990; Moulton, Robinson, and Elias 1978; Noll, Lowry, and Bryant 2018). The available research includes Dutch, the focal language of this paper, for which Redl (2021) has demonstrated that the generic use of the masculine subject pronoun *hij*, and to a lesser extent also the possessive pronoun *zijn*, evokes a male bias in Dutch readers.

The debate on personal pronouns was reignited a few years ago, first internationally but subsequently also in the Dutch language region, by an increasing societal recognition that gender identity can go beyond the traditional binary male/female dichotomy, and by a growing activism for the linguistic inclusion of nonbinary individuals, for whom the binary masculine and feminine 3rd person pronouns are often inadequate (Zimman 2019; Hekanaho 2020). Calls for the adoption of gender-neutral 3rd person pronouns (henceforth 3PPs), which could better accommodate nonbinary gender, thus gained traction.

The first languages in which gender-neutral 3PPs gained prominence were English and Swedish. In English, the use of so-called singular *they* has long been a subject of debate (Paterson 2014). The form has for centuries been common for both generic reference (example 1) and specific reference, for instance to an unknown individual, or one whose gender is hidden (as in example 2):

- (1) A person can't help *their* birth (W. M. Thackeray, https://www.merriam-webster.com/dictionary/they)
- (2) A student was found with a knife and a BB gun in their backpack Monday, district spokeswoman Renee Murphy confirmed. The student, whose name has not been released, will be disciplined according to district policies, Murphy said. *They* also face charges from outside law enforcement, she said. (Olivia Krauth, https://www.merriam-webster.com/dictionary/they)

Whereas singular *they* was for a long time proscribed by normative grammarians, it has in recent decades been increasingly accepted and included in dictionaries (e.g., Merriam Webster, Oxford English Dictionary (https://www.oed.com/discover/a-brief-history-of-singular-they)) and style guides (e.g., APA). Singular *they* is also the form that has been most widely proposed for specific reference to nonbinary individuals, as in example 3.

(3) Asher thought *they* were the only nonbinary person at school until a couple of weeks ago. (New Oxford American Dictionary)

In Swedish, the gender-neutral neopronoun *hen* was coined by a linguist in the 1960s, as an alternative for the generic use of masculine *han*. It gained widespread attention in 2012, when it was reintroduced in a children's book, in which it was used for specific reference to a main character which did not display any gender cues. According to Renström, Lindqvist, and Gustafsson Sendén (2022), *hen* was mostly used generically, but was also adopted by nonbinary individuals, and the fierce societal debate that ensued in the years after 2012 mostly focused on its use for specific, nonbinary reference. The Swedish official dictionary added *hen* in 2015, as a pronoun that can be used for both generic and specific reference (SAOL 2015).

In the Dutch language area, the societal debate on gender-neutral 3PPs started in 2016, when Transgender Netwerk Nederland, the Dutch interest group for trans and nonbinary people, organized an 'Election of nonbinary pronouns'. The winning form that emerged from this election was *hen*, probably modelled after Swedish *hen*. Given that *hen* is an already existing pronoun in Dutch, used for the 3rd person plural object function, it can be considered a repurposed pronoun rather than a neopronoun in the strict sense of the term. *Hen* is proposed for both the subject and object function. The concomitant possessive pronoun is *hun* (also already in use for the 3rd person plural), as in example 4.

(4) Daan is een uitstekende hobbykok. *Hun* sole véronique is onovertroffen. Ik vraag *hen* elk jaar om dat te maken voor mijn verjaardag. *Hen* geeft me dan telkens een extra grote portie. ('Daan is an excellent amateur chef. *Their* sole véronique is unparalleled. I ask *them* every year to make that for my birthday. *They* always give me an extra large portion.')

In addition to *hen*, also the distal demonstrative pronoun *die* is widely proposed as a gender-neutral 3PP, both for the subject and object function.

Its possessive pendant is the existing form *diens* (which is originally a masculine form, but often not recognized anymore as such), as in example 5. Combinations of *hen/hun* and *die/diens* also occur, as in example 6.

- (5) Sam komt vanavond ook naar het feestje. Ken je *die* al? *Die* werkt bij mij op de faculteit. *Diens* partner Andy heb je zeker al eens ontmoet. ('Sam is also coming to the party tonight. Do you know *them* already? *They* work at my faculty. You've surely met *their* partner Andy before.')
- (6) A: Waar is Sasha? B: Ik heb *hen* daarnet nog gezien, maar intussen is *die* al vertrokken om *hun* zoontje van school te gaan halen. ('A: Where is Sasha? B: I saw *them* just now, but in the meantime, *they* have already left to pick up *their* son from school.')

Since 2017, gender-neutral 3PPs are discussed regularly in the Flemish press, and are used occasionally for reference to nonbinary individuals, e.g., in newspaper reporting (Decock, Van Hoof, Soens, and Verhaegen 2024). Both in the Netherlands and in Flanders, newspapers, magazines and broadcasters have moreover begun incorporating guidance on gender-neutral 3PPs in their style guides, which testifies to the growing codification and acceptance of these pronouns. This trend is further confirmed by the inclusion of gender-neutral hen and die in the Dikke Van Dale dictionary in 2021, and in the language advice issued by the Dutch Language Union in 2022 ('Taal En Gender: Verwijswoorden Voor Vrouwen, Mannen En Non-Binaire Personen (Algemeen) – Taaladvies.Net', n.d.). Although the Language Union discusses more options than hen/hun and die/diens, and also elsewhere other alternatives are sometimes proposed, hen/hun and die/diens are currently most frequently used in the Dutch language area (Vos and Nutters 2022; Vriesendorp 2024). Table 1 shows the position of these 3PPs in the existing Dutch third person pronominal system.

The Dutch gender-neutral 3PPs are used and propagated for specific reference to a nonbinary person, as in examples 4-6 above. Less often discussed is their usage for generic reference, as in example 7, where the gender-neutral 3PP is an alternative for the generic masculine (example 8) or a pair form such as *hij/zij* (*he/she*) (example 9).

- (7) We verwachten van een student dat *die* elke les aanwezig is. ('We expect from a student that *they* are present for every class.')
- (8) We verwachten van een student dat hij elke les aanwezig is. ('We expect from a student that he is present for every class.')

(9) We verwachten van een student dat *hij/zij* elke les aanwezig is. ('We expect from a student that *he/she* is present for every class.')

Generic use of gender-neutral *die*, as in example 7, is common in oral language. The same holds for *die* for specific reference, which can in oral language refer to people of all genders, in sentences such as (10) and (11).

- (10) A: Waar is Evi? B: Die is even koffie gaan halen.
- (11) A: Waar is Evi? B: Ik heb *die* net nog gezien.

In written language, however, generic *die* is still rarely used (Redl 2021; Vanspauwen 2023), and the lack of metadiscourse on the use of genderneutral 3PPs for generic reference in general suggests it is much less salient than their specific nonbinary usage.

Whereas the perception of the English and Swedish gender-neutral 3PPs has been fairly extensively studied in recent years, it is less clear how Dutch gender-neutral 3PPS are perceived, and whether there might be a difference between generic and specific usage. In this paper, we will therefore investigate the perception of both the generic and the specific use of gender-neutral 3PPs in Dutch. We will not only investigate the extent to which they are appreciated, but also their perceived comprehensibility. We are interested in the latter because a common argument against gender-neutral 3PPs is that they are believed to be awkward, distracting, confusing, and potentially posing a threat to the clarity and readability of communication (e.g. Vergoossen, Pärnamets, Renström, and Gustafsson Sendén 2020a).

Table 1. The Dutch personal and possessive pronouns of the third person singular and plural (Haeseryn et al. 1997), complemented with the most commonly used gender-neutral 3PPs. Reduced forms are between brackets.

|          |                           | Personal pron                 | ouns               | Possessive pronouns |
|----------|---------------------------|-------------------------------|--------------------|---------------------|
|          |                           | Subject form Non-subject form |                    |                     |
| Singular | Masculine hij             |                               | hem ('m)           | zijn (z'n)          |
|          | Feminine                  | zij (ze)                      | haar ('r, d'r, ze) | haar ('r, d'r)      |
|          | Neuter                    | het ('t)                      | het ('t)           | zijn (z'n)          |
|          | Gender-neutral            | hen, die                      | hen, die           | hun, diens          |
| Plural   | Plural Masculine zij (ze) |                               | hen, hun (ze)      | hun                 |
|          | Feminine                  | zij (ze)                      | hen, hun (ze)      | hun                 |

Before presenting our research questions and hypotheses, the next section reviews the available literature on the perception of the generic and the specific use of gender-neutral 3PPs in English, Swedish and Dutch.

# 2. The comprehensibility and appreciation of gender-neutral 3PPs across different types of reference

Research on the comprehensibility and appreciation of gender-neutral 3PPs is still limited and primarily focuses on English and Swedish, where the introduction of such pronouns is more advanced than in other languages.

#### Perceived comprehensibility

Two self-paced reading studies on English singular *they* have shown that both native speakers (Foertsch and Gernsbacher 1997) and proficient non-native speakers (Speyer and Schleef 2019) face no difficulties in processing singular *they* for generic reference compared to binary pronouns (*he* or *she*). The findings for Swedish mirror the ones for English to a large extent. As far as the processing of Swedish *hen* is concerned, an eye-tracking study conducted by Vergoossen et al. (2020a) found a slight delay in the pronoun spillover region when gender-neutral *hen* (used in sentences with specific gender-hiding reference) was encountered, but this minor effect did not impact reading comprehension. This finding led the authors to conclude that gender-neutral *hen* is not difficult to process and should therefore not be avoided. These findings were corroborated by Renström et al.'s within-subjects experimental survey study (2022), in which *hen* performed well, although significantly worse than binary pronouns, on ratings of grammatical correctness and reading difficulty.

For Dutch, the focal language of this paper, the picture is not as clear-cut, since little research has been conducted on the comprehensibility of the Dutch gender-neutral pronouns *hen* and *die*, apart from Vos and Nutters (2022), Decock et al. (2024) and Van der Molen (2023). In Vos and Nutters' study (2022), the respondents, who mainly lived in the Netherlands, were asked to evaluate an excerpt from a novel in which the nonbinary main character was referred to either by *hen* or by *die*. The respondents answered recall questions and judged the excerpt on narrative engagement and markers of perceived text quality. The results were inconclusive as to which pronoun performed better with readers, although it should be noted that no statistical analysis was performed on the data. Decock et al. (2024) conducted a between-subjects survey experiment in which their

respondents, all Flemings, were presented with a newspaper article on a nonbinary person, who was referred to with different referential strategies in the different conditions: binary pronouns, nonbinary pronouns, or the person's name and profession (so as to avoid pronoun use). The results suggested that the nonbinary use of *hen* and *die* does not significantly impair perceived text comprehensibility compared to pronoun avoidance and binary pronouns. Finally, Van der Molen (2023) investigated how hen and die are interpreted, compared to hij and zij, in short texts with one pronoun and two potential antecedents. She found that *die* was interpreted as referring to the last-mentioned person more often than the other pronouns. Conversely, *hen* seems to be interpreted similarly to the binary pronouns *hij* and zij, because these pronouns were equally often interpreted as referring to the last-mentioned person. Van der Molen concluded that hen and die are interpreted differently and that in terms of pronoun resolution in the context of specific reference, hen may be a better alternative to binary hij or zij than die.

#### Perceived appreciation

When it comes to acceptance rates, Bradley, Schmid, and Lombardo (2019) were able to show, using an online experimental survey, that singular *they* is widely accepted for generic reference: English speakers evaluated generic singular they as equally grammatical and less offensive than generic he and she, aligning with its historical usage. However, they found that singular they does not gain the same level of acceptance for specific (nonbinary or gender-hiding) reference: when used to refer to a specific person, singular they was perceived as less grammatical, especially when the referent had a stereotypically male or female name. These findings were confirmed by both Hekanaho (2020) and Conrod (2019). Hekanaho's results from an online survey filled out by both native and fluent non-native English speakers revealed that the nonbinary use of singular *they* is less accepted than its generic use. The high acceptance levels of singular they for generic reference were even more pronounced in Hekanaho's results than in those of Bradley et al. (2019), in that generic singular they was deemed more natural and correct than the generic use of binary pronouns. Similarly, Conrod (2019) found through a sentence acceptability task that singular they is considered perfectly natural when used with a generic definite antecedent (e.g., 'The ideal barista'), whereas the combination with a masculine or feminine name is less acceptable to participants. At the same time, Conrod's results revealed that specific they was rated as more acceptable by younger speakers, whereas older speakers used they for specific referents less than younger speakers

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did, which suggests that with time, the acceptance rates for specific *they* may improve.

For Swedish, Gustafsson Sendén, Renström, and Lindqvist's (2021) surveys among representative samples of the Swedish population revealed a growing positive attitude toward *hen*, with increased pronoun usage between 2015 and 2018. At the same time, Renström et al. (2022) discovered that sentences with *hen* were rated as more irritating and uglier than sentences with binary pronouns, and that aesthetic evaluations of *hen* for generic reference are more favourable than those of *hen* for specific nonbinary reference.

Regarding nonbinary pronouns in Dutch, Decock et al. (2024) found that the combination *hen-hen-hun* negatively affects perceived text appreciation. This effect was mediated by the perceived awkwardness of these pronouns, i.e., the extent to which they were perceived as weird, surprising or irritating in the text. Participants who indicated that they were already familiar with gender-neutral 3PPs were also asked to evaluate the suitability of the different pronominal combinations. The responses showed that attitudes towards *hen-hen-hun* were more negative than those towards *die-hen-hun* and *die-die-diens*. Based on these findings, the authors hypothesized that the combination *die-hen-hun* is more likely to become established than *hen-hen-hun*.

## Dutch gender-neutral pronouns for generic reference?

All in all, the available research for English and Swedish suggests that gender-neutral 3PPs either do not hinder the reading process or present only initial or minor challenges, and that there is a growing acceptance of these pronouns, particularly for generic reference. The first results for Dutch also already shed some light on the comprehensibility and appreciation of gender-neutral 3PPs in Dutch, at least when it comes to their use for specific nonbinary reference. No knowledge is available on perceptions related to their use for generic reference, or on possible differences between specific or generic reference. As mentioned above, the findings for English singular they and Swedish *hen* indicate that gender-neutral 3PPs for specific (nonbinary) reference are less accepted than for generic reference. This raises the question whether this greater acceptability of generic usage also applies to Dutch. As explained above, Dutch gender-neutral 3PPs were introduced for specific nonbinary reference, and although it has been shown that the generic use of the Dutch masculine pronoun hij elicits a male bias, the generic use of Dutch gender-neutral 3PPs in written language is still uncommon (Redl 2021; Vanspauwen 2023). The situation for Dutch is thus not fully comparable to the situation in English or Swedish. The main goal of this study is therefore

to investigate the comprehensibility and appreciation of gender-neutral 3PPs for generic and specific reference. As the current study uses a sample of Flemish respondents, we decided to only test the Dutch gender-neutral 3PP which was judged as most acceptable by the Flemish participants in Decock et al.'s (2024) study, viz. *die*, and not to incorporate *hen*.

#### 3. The present study and hypotheses

This study examines whether the gender-neutral pronoun *die* for generic reference is more accepted and considered more comprehensible than gender-neutral *die* for specific reference, or vice versa. We tested the following hypotheses:

(H1a) Binary pronouns are considered more comprehensible than the gender-neutral pronoun *die*.

(H<sub>1</sub>b) Binary pronouns are appreciated more positively than the gender-neutral pronoun *die*.

(H2a) Gender-neutral *die* for generic reference is considered more comprehensible than gender-neutral *die* for specific reference.

(H2b) Gender-neutral *die* for generic reference is appreciated more positively than gender-neutral *die* for specific reference.

These hypotheses are in line with and based on the studies by Renström et al. (2022) and Bradley et al. (2019). Regarding H1a and H1b, two remarks should be made. First, Decock et al. (2024) did not find differences in comprehensibility and appreciation between gender-neutral *die* and binary pronouns, but this was a between-subjects and not a within-subjects experiment. In a within-subjects experiment, such as the one that will be presented here, respondents are confronted with both binary and gender-neutral pronouns, which makes it more likely that they will compare referential strategies and that they will evaluate a gender-neutral 3PP, a newer form with which they are less familiar than binary pronouns, more negatively. Second, we expect evaluations of gender-neutral *die* to be more positive for comprehensibility than for appreciation (Decock et al. 2024; Friedrich and Heise 2019; Renström et al. 2022). With regard to H2a and H2b, we chose to formulate the hypotheses based on the existing literature for English

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and Swedish. At the same time, however, there are, as explained above, differences in the introduction and usage of gender-neutral 3PPs in Dutch compared to English and Swedish, which may or may not influence the eventual results.

#### 4. Method

#### **Participants**

In early 2023, a convenience sample of 263 Flemish participants, with Dutch as their first language, took part in an online survey experiment. The online survey was drafted in Qualtrics, and respondents were approached through social media (LinkedIn, Facebook), via the personal network of co-author and master's student Lou-Lou Vanrobaeys. Out of the 159 participants who completed the survey, 5 were excluded because they did not state Dutch as their mother tongue, and 25 participants were excluded from the study because they failed the attention check, leaving us with 129 participants (76 (59%) women, 51 (40%) men, 1 nonbinary, 1 preferred not to say; Mage = 36.53, SDage = 16.84; range = 19–82). In terms of education profile, 117 of these respondents attended higher education, while 12 did not. The convenience sample used for this study thus contains a majority of young, female and highly educated participants.

#### Design, materials and procedure

Like Renström et al. (2022), the experiment was a 2 (*context*: generic vs. specific) x 2 (*pronominal strategy*: gender-neutral vs. binary pronoun) within-participant factorial design with two outcomes measuring appreciation and comprehensibility. The stimulus material consisted of three lists of 12 sentences, of which six contained 3PPs used for generic reference, and six contained 3PPs used for specific reference. Participants were randomly assigned to one of these three lists.

Each sentence consisted of two clauses. In the sentences with generic meaning, the first clause presented an occupational role noun in a grammatically gender-inclusive form, preceded by an indefinite article, e.g., een verpleegkundige ('a nurse'). In the sentences with specific meaning, the first clause contained a name, since names are better at activating the interpretation of a specific person compared to a role noun with a definite article (Renström et al. 2022), e.g., Laura schrikt hevig, want [die|ze] ziet een slang op de weg. ('Laura is heavily startled, because [they|she] sees a snake on the road.') Names were either stereotypically feminine (e.g., Julie),

masculine (e.g., *Thomas*) or gender-neutral (e.g., *Beau*). Role nouns were balanced in terms of gendered and gender-balanced professions as well: we selected stereotypically male, stereotypically female and gender-neutral occupations. The gender stereotypicality of the occupational role nouns and of the names was tested in a pretest conducted in 2022 (Decock et al. 2024).

The second clause of each sentence referred to the noun or name mentioned in the first clause, by means of either a binary or a gender-neutral pronoun. The gender-neutral pronoun used was die, e.g., Als een verpleegkundige nachtwerk doet, dan is die overdag moe ('If a nurse works nights, they are tired during the day'). In the sentences with generic meaning, the binary pronoun condition contained the pair form hij/zij, e.g., Als een verpleegkundige nachtwerk doet, dan is hij/zij overdag moe ('If a nurse works nights, he/she is tired during the day'). In the sentences with specific meaning, the binary pronoun was masculine hij when referring to a male name, feminine ze when referring to a female name, and hij or ze (presented to participants in a randomized balanced way) when referring to a gender-neutral name.¹

There were thus three sentences per condition (e.g., three sentences in the *specific-binary* condition, with one sentence containing a stereotypically feminine, one a stereotypically male, and one a gender-neutral name), resulting in 12 target sentences in total per list. We also included six filler sentences, which were the same for every list, ending up with 18 sentences in total. Filler sentences either contained ungrammatical pronoun use or referred to plants, animals, inanimate objects or weather conditions (Renström et al. 2022; Bradley et al. 2019). Sentences were presented to participants in a randomized order. All sentences are listed in Appendix A.

After giving informed consent and responding to background questions, participants were asked to rate every sentence for *appreciation* (using three items ( $\alpha$  = .89)) and *comprehensibility* (using three items ( $\alpha$  = .84)) on a 5-point Likert scale from 1 = do not agree to 5 = agree. Each sentence was presented on a separate page in the survey. Table 2 gives an overview of the items used to measure *comprehensibility* and *appreciation*, which were all reverse coded for the analysis.

After rating each sentence, participants were given the opportunity to motivate their rating in an open text box. These comments gave us more information on how participants perceived and interpreted the use of gender-neutral *die* for both generic and specific reference and served as data for a qualitative analysis. As additional measures, participants provided

Table 2. Items used for measuring the dependent variables Comprehensibility and Appreciation

| Comprehensibility | Ik had moeite bij het lezen van deze zin. ('I had a hard time reading this sentence.')  De zinsbouw is te complex. ('The sentence structure is too complex.')      |
|-------------------|--|
| Appreciation      | Ik vind deze zin moeilijk te begrijpen. ('I find this sentence difficult to understand.')  Deze zin wekt irritatie bij me op. ('I feel annoyed by this sentence.') |
|                   | Deze zin is slecht geschreven. ('This sentence is poorly written.')  |
|                   | <i>lk vind het taalgebruik in deze zin lelijk.</i> ('I dislike the language used in this sentence.'2)  |

information on some demographic variables (age, education, gender identity) and on modern sexism, i.e., downplaying the existence of gender inequalities (using 5 items ( $\alpha$  = 0.67), based on Dierckx et al. 2014), which was measured by means of a 5-point Likert scale. With a mean value of 2.03 on modern sexism, the sample scores quite low on this variable. Finally, participants were thanked and debriefed about the purpose of the study.

#### Analysis

The quantitative analysis was conducted in R, using the packages lme4 (Bates et al. 2015) and lmerTest (Kuznetsova, Brockhoff, and Christensen 2017). For each dependent variable (appreciation and comprehensibility), we built one linear mixed effects model that includes random intercepts for both participants and sentences. The models only include random slopes for participants as the models showed negligible variance and perfect correlations for the random slopes of sentences, indicating that the data did not support their inclusion. The independent variables for both models are pronominal strategy (neutral or binary) and context (specific or generic), and their interaction. We included name and role noun stereotypicality (male, female, neutral), age, gender (male or non-male³) and modern sexism as covariates. Given that we ran two independent models on our data, we applied a Sidak-corrected alpha of .025 as the threshold for significance.

Different from Renström et al. (2022), we did not investigate whether certain individual beliefs predicted attitudes towards gender-neutral pronouns depending on whether they were used for specific or generic reference. Instead, as announced above, we complemented our quantitative analysis with a qualitative analysis of respondents' comments in order to

better understand and interpret our quantitative findings. For the analysis of respondents' comments, an inductive thematic analysis was performed, informed by Braun and Clarke's (2006) guidelines. In three rounds of coding, moving from broader to more specific categorization, three of the researchers explored the data looking for patterns in the comments relating to the use of gender-neutral pronouns. In a first round of coding, data were coded into five categories:

- (1) comments which state there is nothing wrong with the sentence
- (2) comments critical of an aspect of the sentence unrelated to the pronominal strategy used
- (3) comments reflecting positively or negatively on the pronominal strategy used
- (4) comments offering a reformulation of the entire sentence leading to a change in pronominal strategy, without making the reason for this reformulation explicit
- (5) comments referring to the pronominal strategy used in the sentence without making the participant's stance explicit

In total, 1191 comments were analysed and annotated. The intercoder agreement was calculated in two ways following Lombard, Snyder-Duch, and Bracken (2002), based on 588 comments that were analysed by at least two of the three coders. We found 92.1% percentage agreement, and the mean weighted Kappa coefficient calculated with the irr package in R (Gamer, Lemon, and Singh 2019) is .93. Both values indicate a high level of agreement (Lombard et al. 2002).

In a second round of coding, comments in category 5 were examined in greater detail to find out what participants wanted to express. Each ambiguous comment was compared to other comments given by the same participant, to see if they left similar comments with additional information. This way, we were able to allocate the majority of the comments, but not all, to either category 2 or 3.

### Results

## Comprehensibility model

The ANOVA table of the linear mixed effects model for *comprehensibility* (see Table 3 for the effects of the independent variables) shows that only the *pronominal strategy* has a significant effect on the *comprehensibility* of the sentences (p < .001).

Table 3: F values and p values from the ANOVA table of the linear mixed effects model for *comprehensibility* (significance codes: \*\*\* p < .001, \*\* p < .01, \* p < .025), using Kenward and Roger's (1997) method

|                  | h²  | ndf | ddf    | F     | p      |     |
|------------------|-----|-----|--------|-------|--------|-----|
| Strategy         | .70 | 1   | 161.87 | 19.06 | < .001 | *** |
| Context          | .01 | 1   | 16.01  | 0.37  | .553   |     |
| Strategy:Context | .11 | 1   | 769.37 | 2.93  | .087   |     |
| Modern Sexism    | .06 | 1   | 124.83 | 1.63  | .205   |     |
| Stereotypicality | .09 | 2   | 42.20  | 1.20  | .311   |     |
| Age              | .00 | 1   | 124.76 | 0.02  | .903   |     |
| Gender           | .03 | 1   | 126.05 | 0.78  | .377   |     |
|                  |     |     |        |       |        |     |

The pairwise comparison (with Bonferroni adjustment) in Figure 1 shows that sentences with gender-neutral pronouns scored significantly lower on comprehensibility than sentences with binary pronouns (p < .001).

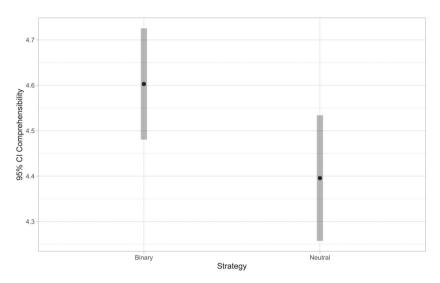


Figure 1. 95% Confidence Interval of the sentences' comprehensibility when using binary or gender-neutral pronouns (1 = no comprehension, 5 = good comprehension)

## Appreciation model

The ANOVA table of the linear mixed effects model for *appreciation* (see Table 4 for the effects of the independent variables) shows that strategy (p < .001), context (p = .005), and their interaction (p < .001) all have a significant effect on the appreciation of the sentences.

Table 4: F values and p values from the ANOVA table of the linear mixed effects model for *appreciation* (significance codes: \*\*\* p < .001, \*\* p < .01, \* p < .025), using Kenward and Roger's (1997) method

|                  | h <sup>2</sup> | ndf | ddf    | F     | р     |     |
|------------------|----------------|-----|--------|-------|-------|-----|
| Strategy         | .46            | 1   | 142.95 | 92.29 | <.001 | *** |
| Context          | .05            | 1   | 23.35  | 9.71  | .005  | *   |
| Strategy:Context | .44            | 1   | 539.29 | 87.38 | <.001 | *** |
| Modern Sexism    | .01            | 1   | 124.84 | 2.63  | .108  |     |
| Stereotypicality | .02            | 2   | 30.92  | 2.17  | .132  |     |
| Age              | .01            | 1   | 124.77 | 1.01  | .316  |     |
| Gender           | .01            | 1   | 126.06 | 1.89  | .171  |     |
|                  |                |     |        |       |       |     |

The pairwise comparisons (with Bonferroni adjustment), illustrated in Figure 2, indicate that sentences with binary pronouns are significantly more appreciated than those with gender-neutral pronouns (p < .001). Moreover, gender-neutral pronouns are significantly less appreciated in the specific context than in the generic context (p < .001). The strongest downgrading of gender-neutral pronouns thus occurs in the specific context.

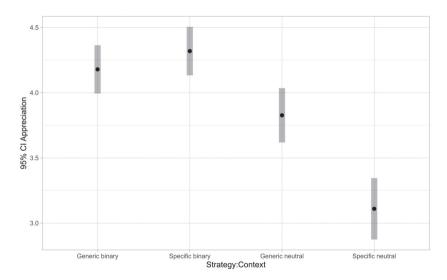


Figure 2. 95 % Confidence intervals of the sentences' appreciation for the generic and specific context, when binary or gender-neutral pronouns are used (1 = negative appreciation, 5 = positive appreciation).

#### Analysis of the comments

In two rounds of coding, 1191 comments were allocated to 5 categories (see Table 5).

Table 5. Number of comments per category

| Category   | N of comments |
|--|---------------|
| (1) Comments which state there is nothing wrong with the sentence.     | 480           |
| (2) Comments critical of an aspect of the sentence unrelated to the    |               |
| pronominal strategy used.  | 271           |
| (3) Comments reflecting positively or negatively on the pronominal     |               |
| strategy used.   | 352           |
| (4) Comments offering a reformulation of the entire sentence leading   |               |
| to a change in pronominal strategy, without making the reason for this |               |
| reformulation explicit.  | 27            |
| (5) Comments referring to the pronominal strategy used in the          |               |
| sentence but the participant's stance is ambiguous.                    | 61            |

As Table 6 shows, comments which reflected on the pronominal strategy used in the stimuli (category 3) were most frequently given for sentences containing specific *die*, followed by sentences with generic *die*. Sentences with generic *hij*/ *zij* elicited fewer comments, and sentences with specific *hij* or *ze* barely any.

Table 6: Number of comments related to the pronominal strategy used per experimental condition

| Experimental condition            | N of comments    |
|-----------------------------------|------------------|
| generic-hij/zij-male              | 17               |
| generic-hij/zij-female            | 16               |
| generic-hij/zij-neutral           | 18               |
| generic-die-male                  | 34               |
| generic-die-female                | 33               |
| generic-die-neutral               | 36               |
| specific-binary-male              | 4                |
| specific-binary-female            | 2                |
| specific-binary-neutral           | 6                |
| specific-die-male                 | 65               |
| specific-die-female               | 69               |
| specific-die-neutral <b>Total</b> | 52<br><b>352</b> |

In a third round of coding, all comments on pronominal strategy, i.e., category 3, were examined inductively for subthemes which express a specific opinion about the pronominal strategies used, resulting in 1 subcode neutral stance, 6 subcodes grouped under positive stance and 12 subcodes grouped under *negative stance*. The table in Appendix B gives a detailed overview of the different stances towards specific and generic *die* and generic *hij/zij*. When looking at the sentiments expressed in the comments on pronominal strategy, we see that specific *die* is not only most frequently commented upon, but also most negatively assessed, with 194 comments expressing a negative stance vs. only 13 conveying a positive and 6 a neutral stance. Participants also provided more negative than positive comments on generic *die*, but the contrast is less extreme in comparison to attitudes towards specific *die* (76 negative vs. 33 positive comments, and 2 neutral comments on generic *die*). The remaining comments mainly revealed an opinion about generic *hij/zij*, with negative and positive comments almost balancing each other out (41 negative vs. 32 positive comments, and 4 neutral comments). This indicates that generic *hij/zij* is also met with controversy, albeit to a lesser extent than gender-neutral die.

As the overview shows, participants mainly object against the use of *die* for specific reference and suggest a binary pronoun as the correct option. There is not always an explanation as to why they believe a binary pronoun is better. Many of these comments are phrased as suggestions or corrections without making the reasoning behind it explicit, e.g., Ik zou 'die' veranderen door 'hij' ('I would replace 'die' by 'hij'', in response to a sentence in the specific-die-male-condition) (Appendix B, example 5). A few participants do offer an explanation, e.g., that specific die is used incorrectly, because it goes against what was taught in school: Ik zou hij schrijven ipv die, lijkt mij een beetje tegen de taalregels geleerd op school ('I would write hij instead of die, seems to me to go against the language rules taught in school', in response to a sentence in the specific-die-male-condition) (Appendix B, example 8). This type of comment relates to one of the categories Vergoossen, Renström, Lindqvist, and Gustafsson Sendén (2020b: 332) observed in their research on criticism against gender-fair language, namely an Appeal To Authority in defending the status quo ("... teachers ... have a final say in what is the correct way to use language").

Additionally, we identified the following negative stances which overlap for generic *die* and specific *die*: "*die* is wrong or ungrammatical" (Appendix B, examples 8 & 23); "*die* sounds like spoken language or dialect" (Appendix B, examples 10 & 25); "*die* is impersonal, i.e., one can refer with *die* to objects but not to people" (Appendix B, examples 11 & 26), "*die* is ambiguous" (Appendix

B, examples 7 & 22). Several participants also express a preference for generic masculine forms by replacing generic *die* by the masculine third person singular pronoun *hij* (Appendix B, example 21). These are all stances that reflect an inclination to "Defend the Linguistic Status Quo", as Vergoossen et al. (2020b: 332) labelled it.

Examining the stance "die sounds like spoken language or dialect" in some more detail, this probably refers to the fact that, even though the use of *die* as a personal pronoun is common in oral language use (cf. section 1), it rarely occurs in written language. Therefore, several participants reject die as wrong. The stance "die is ambiguous" pertains to pronoun resolution and the potential ambiguity of die, which can refer both to animate and inanimate antecedents and is mostly interpreted as referring to the lastmentioned antecedent (cf. Van der Molen 2023). In constructing the stimuli from this study, we made sure to avoid ambiguity, mostly by incorporating only one potential antecedent. Three sentences, however, contained two potential antecedents, in which case the first antecedent was always a person (either an epicene role noun or a name) and the second antecedent was an inanimate object. *Die* could thus refer to two potential antecedents syntactically, but not semantically: only coreferentiality with the animate subject made sense. One sentence contained an animate subject and an animate object with neuter gender (viz., een kind ('a child')). Semantically, the interpretation that *die* refers to that object is unlikely, because *die* cannot refer grammatically to een kind (the correct form would be neuter dat). All sentences were thus semantically unambiguous. Nevertheless, some comments indicate that participants were confused by the presence of two potential syntactic antecedents, e.g., Heeft Sasha geen zin of de bus? ('Doesn't Sasha feel like it or the bus?') which refers to the following stimulus sentence: Sasha neemt de bus, want die heeft geen zin om door de regen te fietsen. ('Sasha takes the bus, because they do not feel like cycling through the rain.') These comments suggest that die in a sentence with two potential syntactic antecedents can be harder to process, regardless of semantic unambiguity. For sentences with only one potential antecedent, there were no comments on the ambiguity of die.

Given that the Dutch nonbinary pronouns are still in an early stage of codification, it is not unlikely that a lack of knowledge and awareness about nonbinary pronouns can also explain some of the negative comments on specific *die*. Since Decock et al. (2024) found that in 2022 only 31,3% of Flemish people were familiar with the gender-neutral pronouns *die-hen-hun*, it is possible that several of the participants in the current study were unfamiliar with *die* for nonbinary reference. However, in a recent survey conducted among a

sample of 256 Flemish participants that is more similar to the sample in the present study (Mage = 28.25, SD = 8.49, range = 18-65), Verhaegen, Van Herck, Van Hoof, Gabriel, Gygax and Decock (subm.) found that 82% of respondents indicated they were already familiar with *die-hen-hun*, and 51,12% with *die-die-diens*. Since we did not ask our respondents whether they were familiar with gender-neutral pronouns, it remains an open question to what extent a lack of knowledge of the pronouns can explain the negative stances in the comments.

Based on Renström et al.'s finding (2022) that a belief that gender is binary predicts a negative attitude against the specific, nonbinary use of genderneutral pronouns, we could also assume that such a belief helps explain the large number of negative comments on specific *die*. A belief that gender is binary also sometimes shines through in comments expressing a negative stance towards generic *die*. Several comments are phrased as suggestions or corrections, replacing generic *die* by the pair form *hij/zij* (Appendix B, example 20). While it is possible that such suggestions or corrections are made based on a firm belief that gender is binary, it is also plausible that they stem from unfamiliarity with *die* as a codified gender-neutral pronoun for generic use.

Alternatively, for specific use, it might be the case that some of the negative comments on specific die are not necessarily motivated by the belief that gender is binary, but more by the assumption that a person with a traditionally gendered name is unlikely to identify as nonbinary. Indeed, some commenters make explicit that they take issue with the choice for specific die because they see it as incompatible with traditionally gendered male or female names: Laura is een meisjesnaam dus ik verwacht 'ze' ipv 'die' ('Laura is a girl's name so I expect 'ze' instead of 'die", in response to a sentence in the specific-die-female-condition) (Appendix B, example 6); Ik zou 'hij' i.p.v. 'die' schrijven omdat Thomas de voornaam van een man/jongen is. ('I would write 'hij' instead of 'die' because Thomas is the first name of a man/boy', in response to a sentence in the specific-die-male-condition). Such observations echo Bradley et al.'s findings (2019), who found that singular they was perceived as less grammatical, especially when the referent had a stereotypically male or female name. The implicature in these comments thus seems to be that specific *die* would have been a correct option in combination with a name that does not evoke a clearly gendered expectation. A few comments also explicitly articulate this stance, e.g., Sasha kan zowel vrouwelijk als mannelijk zijn qua naam, dus hier stoort de 'die' mij dan minder omdat ik niet weet of het een man/vrouw/non-binair persoon is ('Sasha can be either female or male in name, so here the 'die' bothers me less because I don't know if it is a man/woman/nonbinary person', in response to a sentence in the specific-die-neutral-condition). These findings indicate that a name

IP: 178 144 73 202

that is not clearly gendered facilitates a nonbinary interpretation, whereas a traditionally gendered name hinders such an interpretation.

Finally, turning our attention to the positive stances towards the gender-neutral pronoun, some comments convey an awareness of shifting language norms and openness towards nonbinary gender. A number of participants remark that they don't like the pair form <code>hij/zij</code> and that it is in fact not inclusive: "Een dergelijke zin vind ik ook niet correct omdat in dat geval genderneutrale personen worden uitgesloten. (I also find such a sentence incorrect because in that case gender-neutral people are excluded.)" (Appendix B, example 28). Several participants express their preference for generic die over the pair form: ""Hij/zij" is een struikelblok, "die" zou beter passen. ("Hij/zij" is a hindrance, "die" would fit better.)" (Appendix B, example 15). Criticism on binary pronouns in the comments is almost entirely restricted to the pair form <code>hij/zij</code>, i.e., generic use of binary pronouns, a finding which mirrors the results of the quantitative analysis, which revealed a higher comprehensibility and appreciation of binary pronouns for specific than for generic use.

#### 6. General discussion and conclusion

This study experimentally tested the effect of the Dutch gender-neutral pronoun *die* on sentence comprehensibility and appreciation, compared to binary pronouns, in both generic and specific contexts. The analysis of the comments from the participants shed further light on their stances towards the different pronominal strategies.

The results are in line with previous research for other languages and confirm the hypotheses that binary pronouns are rated better for comprehensibility (H1a) and appreciation (H1b) than gender-neutral *die*. Our expectation that the difference between gender-neutral *die* and binary pronouns would be small for comprehensibility and larger for appreciation was also confirmed. In fact, the mean ratings for the comprehensibility of gender-neutral *die*, although being slightly lower than for binary pronouns, are still very high (around 4.5 out of 5), which suggests that, overall, gender-neutral *die* does not impair comprehensibility. There was no support for hypothesis 2a, since we found no evidence that sentences with gender-neutral *die* for generic reference are more comprehensible than those with gender-neutral *die* for specific reference. The results did confirm hypothesis 2b: gender-neutral *die* for specific reference is better appreciated than gender-neutral *die* for specific reference. This larger appreciation of gender-neutral

die for generic reference mirrors previous findings on English and Swedish gender-neutral 3PPs (Bradley et al. 2019; Renström et al. 2022), which is somewhat remarkable, given that in contrast to English and Swedish, the generic use of gender-neutral die in written language is still uncommon in Dutch. Interviews with Flemish journalists revealed that they feel reluctant to use linguistic forms that are not yet widely accepted (Vanspauwen 2023). The mean appreciation rate for generic gender-neutral die in our study was just below 4 (out of 5), however, which suggests that a more frequent use of this form may not be much of a problem for a majority of language users.

The difference in appreciation between generic and specific *die* is reflected in the results of the analysis of the comments as well. Overall, specific *die* elicited most comments, which were mainly negative. The most prevalent subtheme identified among the negative stances against specific *die* is that a binary pronoun would be better. This reasoning may be an indication of a (subconscious) belief that gender is binary (which was also observed by Renström et al. 2022 for Swedish *hen*), although there also seems to be a lack of knowledge regarding nonbinary people, their names and their preferred pronouns: while traditionally gendered names mostly incite our participants to correct the use of specific *die* by a binary pronoun, names that are not as clearly gendered foster the acceptance of specific *die*. This suggests that an increase in knowledge on nonbinary gender identity might lead to higher appreciation rates for the specific use of gender-neutral *die* in the future.

A recurring theme in the comments on both generic and specific *die* is that the pronoun is ambiguous, indicating that some participants still seem to struggle with the interpretation of gender-neutral *die*. Here as well, a growing familiarity with the use of gender-neutral pronouns might ease the process of pronoun resolution and thus positively influence their appreciation rates over the next years.

We recognize that there are a few limitations to our study. Our participant sample was relatively small and rather young and almost all of the participants had attended higher education. A more diverse sample may provide more generalizable insights regarding the state of gender-neutral pronouns in Dutch. Furthermore, our within-subjects design presented participants with the gender-neutral pronoun *die* in stand-alone sentences, which did not allow for much context. In addition, we did not measure participants' familiarity with the gender-neutral pronoun *die*, which could have helped us to interpret participants' comments.

The present study is the first to compare Dutch gender-neutral pronouns for generic and specific reference. Aside from its focus on Dutch, its original contribution lies in its combination of quantitative and qualitative data to

shed light on differences in appreciation and comprehensibility between generic and specific uses of gender-neutral pronouns. From this study we can conclude that for generic reference, the form *die* shows potential as a more gender-inclusive alternative to pair forms such as *hij/zij* (*he/she*) and to masculine generics. Future research should set out to test whether Dutch gender-neutral pronouns succeed in eliminating the male bias (cf. Redl 2021), and should examine potential problems of pronoun resolution more closely. Follow-up research may moreover present participants with generic *die* in longer texts for a more authentic reading experience. In such longer texts, it would be possible to inform the reader about the purpose of the gender-neutral pronouns (either referencing a nonbinary person or the gender-inclusive generic use), which might positively influence comprehensibility and appreciation scores (cf. Decock et al. 2024). Finally, it would be relevant to follow up on the results of the present study, and in doing so to also include *hen*, in order to track the implementation of gender-neutral 3PPs, and the success or failure of this type of gender-fair language innovation, in real time.

#### Notes

- For the feminine 3PP, we consistently used the reduced form 'ze' instead of the full form 'zij'. Although both are acceptable, the reduced form is common in unstressed position (Haeseryn et al. 1997).
- 2. Literally translated this sentence says: 'I find the language usage in this sentence ugly.'
- 3. One respondent indicated being nonbinary and one respondent preferred not to disclose their gender identity. Since these are too few respondents to constitute a separate group, we grouped them as 'non-male' together with the female respondents, as both women and nonbinary people have in common that they are linguistically less visible compared to men.
- 4. The number of comments does not equal the number of stances, because one comment may express more than one stance (but never more than two), for instance 'ugly' and 'not gender-inclusive', or 'worse than binary hij/zij' and 'better than die'.

#### References

- Bates, Douglas, Martin Mächler, Ben Bolker, and Steve Walker. 2015. "Fitting Linear Mixed-Effects Models Using Lme4." *Journal of Statistical Software* 67 (1). https://doi.org/10.18637/jss.v067.io1.
- Bodine, Ann. 1975. "Androcentrism in prescriptive grammar: Singular 'they', sex-indefinite 'he', and 'he or she'." *Language in Society* 4 (2): 129-146. http://www.jstor.org/stable/4166805.
- Bradley, Evan D., Maxwell Schmid, and Hannah Lombardo. 2019. "Personality, Prescriptivism, and Pronouns: Factors Influencing Grammaticality Judgments of Gender-Neutral Language." *English Today* 35 (4): 41–52. https://doi.org/10.1017/S0266078419000063.
- Braun, Virginia, and Victoria Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3 (2): 77–101. https://doi.org/10.1191/1478088706qp0630a.
- Brouwer, Dédé. 1980. "'Taal en Sekse' als Probleem voor de Taalwetenschap." *Wetenschap en Samenleving* 2: 105–115.
- Conrod, Kirby. 2019. 'Pronouns Raising and Emerging'. University of Washington.
- Decock, Sofie, Sarah Van Hoof, Ellen Soens, and Hanne Verhaegen. 2024. "The Comprehensibility and Appreciation of Non-Binary Pronouns in Newspaper Reporting: The Case of Hen and Die in Dutch." *Applied Linguistics* 45 (2): 330–347. doi:10.1093/applin/amado28.
- Dierckx, Myrte, Joz Motmans, Petra Meier, Myriam Dieleman, and Charlotte Pezeril. 2014. "Beyond the box: attitudemeting m.b.t. seksisme, holebifobie en transfobie: onderzoeksrapport." Antwerpen: Universiteit Antwerpen.
- Foertsch, Julie, and Morton Ann Gernsbacher. 1997. "In Search of Gender Neutrality: Is Singular *They* a Cognitively Efficient Substitute for Generic *He?*" *Psychological Science* 8 (2): 106–11. https://doi.org/10.1111/j.1467-9280.1997.tboo691.x.
- Friedrich, Marcus C.G., and Elke Heise. 2019. "Does the Use of Gender-Fair Language Influence the Comprehensibility of Texts?: An Experiment Using an Authentic Contract Manipulating Single Role Nouns and Pronouns." *Swiss Journal of Psychology* 78 (1–2): 51–60. https://doi.org/10.1024/1421-0185/a000223.
- Gamer, Matthias, Jim Lemon, and Ian Fellows Puspendra Singh. 2019. "Irr: Various Coefficients of Interrater Reliability and Agreement." https://cran.r-project.org/web/packages/irr/index.html.
- Gastil, John. 1990. "Generic Pronouns and Sexist Language: The Oxymoronic Character of Masculine Generics." *Sex Roles* 23 (11–12): 629–43. https://doi.org/10.1007/BF00289252.

- Gustafsson Sendén, Marie, Emma Renström, and Anna Lindqvist. 2021. "Pronouns Beyond the Binary: The Change of Attitudes and Use Over Time." *Gender & Society* 35 (4): 588–615. .
- Haeseryn, Walter, Kirsten Romijn, Guido Geerts, and Maarten C. van den Toorn. 1997. "ANS | 5 Het Voornaamwoord (Pronomen)." Algemene Nederlandse Spraakkunst. https://e-ans.ivdnt.org/topics/pid/anso5lingtopic.
- Hekanaho, Laura. 2020. "Generic and Nonbinary Pronouns. Usage, Acceptability and Attitudes." PhD diss., University of Helsinki.
- Kenward, Michael, and James Roger. 1997, "Small Sample Inference for Fixed Effects from Restricted Maximum Likelihood." *Biometrics* 53 (3): 983-997. https://doi.org/10.2307/2533558.
- Kuznetsova, Alexandra, Per B. Brockhoff, and Rune H. B. Christensen. 2017. "ImerTest Package: Tests in Linear Mixed Effects Models." *Journal of Statistical Software* 82 (13). https://doi.org/10.18637/jss.vo82.i13.
- Lombard, Matthew, Jennifer Snyder-Duch, and Cheryl Campanella Bracken. 2002. "Content Analysis in Mass Communication: Assessment and Reporting of Intercoder Reliability." *Human Communication Research* 28 (4): 587–604. https://doi.org/10.1111/j.1468-2958.2002.tb00826.x.
- Moulton, Janice, George M. Robinson, and Cherin Elias. 1978. "Sex Bias in Language Use: 'Neutral' Pronouns That Aren't." *American Psychologist* 33 (11): 1032–36. https://doi.org/10.1037/0003-066X.33.11.1032.
- Noll, Jane, Mark Lowry, and Judith Bryant. 2018. "Changes Over Time in the Comprehension of He and They as Epicene Pronouns." *Journal of Psycholinguistic Research* 47 (5): 1057–68. https://doi.org/10.1007/s10936-018-9577-4.
- Paterson, Laura Louise. 2014. *British Pronoun Use, Prescription, and Processing*. London: Palgrave Macmillan UK. https://doi.org/10.1057/9781137332738.
- Redl, Theresa. 2021. "Masculine Generic Pronouns: Investigating the Processing of an Uninteded Gender Cue." PhD diss., Radboud University Nijmegen.
- Renström, Emma A., Anna Lindqvist, and Marie Gustafsson Sendén. 2022. "The Multiple Meanings of the Gender-inclusive Pronoun Hen: Predicting Attitudes and Use." *European Journal of Social Psychology* 52 (1): 71–90. https://doi.org/10.1002/ejsp.2816.
- Romein-Verschoor, Annie. 1975. "Over Taal en Seks, Seksisme en Emancipatie."  $De\ Gids\ 138\ (1/2):\ 3-36.$
- SAOL. 2015. *Svenska Akademiens Ordlista Över Svenska Språket*. Stockholm: Svenska Akademien.
- Speyer, Lydia Gabriela, and Erik Schleef. 2019. "Processing "Gender-Neutral" Pronouns: A Self-Paced Reading Study of Learners of English." *Applied Linguistics* 40 (5): 793–815. https://doi.org/10.1093/applin/amy022.

- 'Taal En Gender: Verwijswoorden Voor Vrouwen, Mannen En Non-Binaire Personen (Algemeen) Taaladvies.Net'. n.d. Taaladvies. Accessed 5 March 2024. https://taaladvies.net/taal-en-gender-verwijswoorden-voor-vrouwen-mannen-en-non-binaire-personen-algemeen/.
- Van der Molen, Romy. 2023. *De Interpretatie van Genderneutrale Pronomina*. Master thesis, Radboud Universiteit Nijmegen. https://arts.studenttheses.ub.rug.nl/32957/.
- Vanspauwen, Emma. 2023. "Het Genderinclusieve Taalbeleid Bij De Standaard, Het Nieuwsblad, De Morgen, De Zondag, VRT NWS en Knack: Een Kwalitatieve Studie." Master thesis, Ghent University.
- Vergoossen, Hellen Petronella, Philip Pärnamets, Emma Aurora Renström, and Marie Gustafsson Sendén. 2020a. "Are New Gender-Neutral Pronouns Difficult to Process in Reading? The Case of Hen in SWEDISH." *Frontiers in Psychology* 11 (November): 574356. https://doi.org/10.3389/fpsyg.2020.574356.
- Vergoossen, Hellen Petronella, Emma Aurora Renström, Anna Lindqvist, and Marie Gustafsson Sendén. 2020b. "Four Dimensions of Criticism Against Gender-Fair Language." Sex Roles 83 (5–6): 328–37. https://doi.org/10.1007/s11199-019-01108-x.
- Verhaegen, Hanne, Rebecca Van Herck, Sarah Van Hoof, Ute Gabriel, Pascal Gygax, and Sofie Decock. Subm. "The effect of Dutch gender-neutral pronouns on perceived text quality: generic reference in employee guidelines."
- Vos, Lette, and Tia Nutters. 2022. "Wennen aan "hen"? Of "die"? Een Leesonderzoek naar Non-Binaire Voornaamwoorden in de Nederlandse Vertaling van Girl, Woman, Other." *Filter, Tijdschrift over Vertalen,* https://www.tijdschrift-filter. nl/webfilter/dossier/gender-in-vertaling/2022-7/wennen-aan-hen-of-die/#.
- Vriesendorp, Hielke. 2024. "Die/diens of hen/hun? Non-binaire Voornaamwoorden in het Nederlands." *Nederlandse Taalkunde* 29 (2): 255-267. https://doi.org/10.5117/NEDTAA2024.2.004.VRIE
- Zimman, Lal. 2019. "Trans Self-identification and the Language of Neoliberal Selfhood: Agency, Power, and the Limits of Monologic Discourse." *International Journal of the Sociology of Language* 256: 147–175. https://doi.org/10.1515/ijsl-2018-2016.

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## Appendix A

### Table: Stimuli for the experiment

| Condition                     | List 1  | List 2  | List 3  |
|-------------------------------|---|---|---|
| Generic – binary<br>(male)    | Als een professor in de fysica naar een luchtballon kijkt, dan denkt hij/zij na over de fysische toepassing ervan. ('When a physics professor looks at a hot air balloon, he/she thinks about its physical application.') | Als een imker goed voor de bijen zorgt, dan verkoopt hij/zij kwaliteitsvolle honing. ('When a beekeeper takes good care of the bees, he/she sells high-quality honey.')   | Als de producer van<br>een film succes wil<br>hebben, dan moet hij/<br>zij een sociaal netwerk<br>opbouwen. ('If the<br>producer of a film<br>wants to succeed,<br>he/she must build a<br>social network.') |
| Generic – binary<br>(female)  | Als een verpleegkundige nachtwerk doet, dan is hij/zij overdag moe. ('When a nurse works night shifts, he/she is tired during the day.')  | Als een leerkracht in het lager onderwijs een kind vervelend vindt, dan moet hij/zij geduldig blijven. ('If a primary school teacher finds a child annoying, he/she must remain patient.')                                    | Als een fashion influencer geld wil verdienen, dan moet hij/zij jarenlang populariteit opbouwen. ('If a fashion influencer wants to earn money, he/she must build popularity over many years.')             |
| Generic – binary<br>(neutral) | Als een jeugdauteur een boek uitbrengt, dan hoopt hij/zij op positieve recensies. ('When a youth author publishes a book, he/she hopes for positive reviews.')  | Als een slaapde-<br>skundige mensen<br>onderzoekt, dan<br>ontdekt hij/zij soms<br>vreemde slaapproble-<br>men. ('When a sleep<br>specialist examines<br>people, he/she<br>sometimes discovers<br>strange sleep<br>problems.') | Als een huisarts op<br>huisbezoek gaat,<br>dan heeft hij/zij vaak<br>parkeerproblemen.<br>('When a doctor<br>makes a house call,<br>he/she often has<br>parking problems.')                                 |

| Generic – <i>die</i> (male)       | Als een imker goed voor de bijen zorgt, dan verkoopt die kwaliteitsvolle honing. ('When a beekeeper takes good care of the bees, they sell high-quality honey.')   | Als de producer van<br>een film succes wil<br>hebben, dan moet die<br>een sociaal netwerk<br>opbouwen. ('If the<br>producer of a film<br>wants to succeed,<br>they must build a<br>social network.') | Als een professor in de fysica naar een luchtballon kijkt, dan denkt die na over de fysische toepassing ervan. ('When a physics professor looks at a hot air balloon, he/she thinks about its physical application.') |
|-----------------------------------|--|--|---|
| Generic – <i>die</i><br>(female)  | Als een fashion influencer geld wil verdienen, dan moet die jarenlang populariteit opbouwen. ('When a fashion influencer wants to earn money, they have to build popularity over many years.')                     | Als een verpleegkundige nachtwerk doet, dan is die overdag moe. ('When a nurse works night shifts, they are tired during the day.')  | Als een leerkracht in het lager onderwijs een kind vervelend vindt, dan moet die geduldig blijven. ('If a primary school teacher finds a child annoying, they must remain patient.')                                  |
| Generic – <i>die</i><br>(neutral) | Als een slaapde-<br>skundige mensen<br>onderzoekt, dan<br>ontdekt die soms<br>vreemde slaap-<br>problemen. ('When<br>a sleep expert<br>examines people,<br>they sometimes<br>discover strange<br>sleep problems.') | Als een huisarts op<br>huisbezoek gaat,<br>dan heeft die vaak<br>parkeerproblemen.<br>('When a doctor<br>makes a house call,<br>they often have<br>parking problems.')                               | Als een jeugdauteur een boek uitbrengt, dan hoopt die op positieve recensies. ('When a youth author publishes a book, they hope for positive reviews.')   |
| Specific – binary<br>(male)       | Thomas doet een<br>dutje, want hij is erg<br>moe. ('Thomas takes<br>a nap because he is<br>very tired.')   | Koen leest het artikel<br>meerdere keren,<br>want hij is afgeleid.<br>('Koen reads the<br>article several<br>times because he is<br>distracted.')  | Kevin bloedt hevig,<br>want hij heeft<br>zich aan een mes<br>gesneden. ('Kevin<br>is bleeding heavily<br>because he cut<br>himself with a knife.')  |
| Specifiek – binary<br>(female)    | Julie wandelt vaak<br>in het bos, want ze<br>houdt van de natuur.<br>('Julie often walks in<br>the forest because<br>she loves nature.')   | Laura schrikt hevig,<br>want ze ziet een slang<br>op de weg. ('Laura<br>is heavily startled<br>because she sees a<br>snake on the road.')  | Els is niet bang voor<br>een uitdaging, want<br>ze heeft een sterk<br>karakter. ('Els is not<br>afraid of a challenge<br>because she has a<br>strong character.')   |

| Specific – binary<br>(neutral)     | Luka lacht uitbundig,<br>want ze voelt zich<br>goed. ('Luka laughs<br>heartily because she<br>feels good.')<br>Luka lacht uitbundig,<br>want hij voelt zich<br>goed. ('Luka laughs<br>heartily because he<br>feels good.') | Beau staat stil, want ze herinnert zich de juiste weg niet meer. ('Beau stops because she doesn't remember the right way anymore.') Beau staat stil, want hij herinnert zich de juiste weg niet meer. ('Beau stops because he doesn't remember the right way anymore.') | Sasha neemt de bus, want ze heeft geen zin om door de regen te fietsen. ('Sasha takes the bus because she doesn't feel like cycling in the rain.') Sasha neemt de bus, want hij heeft geen zin om door de regen te fietsen. ('Sasha takes the bus because he doesn't feel like cycling in the rain.') |
|------------------------------------|--|---|---|
| Specific – <i>die</i> (male)       | Koen leest het artikel<br>meerdere keren,<br>want die is afgeleid.<br>('Koen reads the<br>article several times<br>because they are<br>distracted.')   | Kevin bloedt hevig,<br>want die heeft<br>zich aan een mes<br>gesneden. (Kevin is<br>bleeding heavily<br>because they cut<br>themself with a knife.  | Thomas doet een<br>dutje, want die is erg<br>moe. ('Thomas takes<br>a nap because he is<br>very tired.')  |
| Specific – <i>die</i><br>(female)  | Laura schrikt hevig,<br>want die ziet een<br>slang op de weg.<br>('Laura is startled<br>because they see a<br>snake on the road.')   | Els is niet bang voor<br>een uitdaging, want<br>die heeft een sterk<br>karakter. ('Els is not<br>afraid of a challenge<br>because they have a<br>strong character.')  | Julie wandelt vaak in het bos, want die houdt van de natuur. ('Julie often walks in the forest because they love nature.')  |
| Specific – <i>die</i><br>(neutral) | Beau staat stil, want<br>die herinnert zich de<br>juiste weg niet meer.<br>('Beau stops because<br>they don't remember<br>the correct way<br>anymore.')  | Sasha neemt de bus, want die heeft geen zin om door de regen te fietsen. ('Sasha takes the bus because they don't feel like cycling in the rain.')  | Luka lacht uitbundig,<br>want die voelt zich<br>goed. ('Luka laughs<br>heartily because they<br>feel good.')  |
| Filler 1                           |  | bekend dat hij het snelst   |   |
| Filler 2                           | ~  | le tafel valt, overleeft het  | _   |
| Filler 3                           | 3  | moet voetballen vanavo  | ond. ('Steven explains  |
| Filler 4                           | Wanneer de hond op h   | et speeltje stapt, maakt h  | ~   |
| Filler 5                           | Op de doos staat dat he  | on the toy, it makes a shet fragiele inhoud bevat.  |   |
| Filler 6                           | contains fragile conte   | nt. )<br>t. ('When it rains, it's we  | rt.')   |

## Appendix B

## Table: Sentiments expressed in the comments on pronominal strategy (category 3)<sup>4</sup>

| Pronominal strategy | Stance            |   | N   | Exa | mple   |
|---------------------|-------------------|---|-----|-----|--|
| Specific die        |                   |   |     |     |  |
|                     | Positive stance   |   | 13  |     |  |
|                     |                   | Gender-<br>inclusive  | 4   | (1) | Genderneutraal taalgebruik is goed.<br>('Genderneutral language use is<br>good.')  |
|                     |                   | OK with<br>names<br>that are<br>not clearly<br>gendered/<br>if person is<br>nonbinary | 7   | (2) | Ik ben geen fan van het gebruik van 'die' als persoonlijk voornaamwoord, tenzij Beau zich als non-binair identificeert en daarom 'die/hun' verkiest. ('I'm not a fan of the use of 'die' as a personal pronoun, unless Beau identifies as nonbinary and prefers 'die/hun' for that reason.') |
|                     |                   | Matter of habit   | 2   | (3) | Is wennen, is genderneutraal. ('Need to get used to it, is gender-neutral.')   |
|                     | Neutral<br>stance |   | 6   | (4) | Genderneutrale 'die' stoort mij niet.<br>('Gender-neutral 'die' does not<br>bother me.')   |
|                     | Negative stance   |   | 194 |     |  |
|                     |                   | Worse than binary pronoun   | 116 | (5) | lk zou 'die' veranderen door 'hij' ('I<br>would replace 'die' by 'hij")  |
|                     |                   | Not OK after<br>a tradition-<br>ally gendered<br>name                                 | 19  | (6) | (Laura is een meisjesnaam dus ik<br>verwacht 'ze' ipv 'die' ('Laura is a<br>girl's name so I expect 'ze' instead<br>of 'die")  |
|                     |                   | Ambiguous   | 16  | (7) | Moest even zoeken waar 'die' bij<br>hoorde – zeker niet bij 'het artikel'.<br>Dus moest wat extra moeite in deze<br>zin steken. ('Had to look a bit for<br>what 'die' belonged to – definitely<br>not 'the article'. So had to put some<br>extra effort into this sentence.')                |
|                     |                   | Wrong/un-<br>grammatical  | 12  | (8) | Ik zou hij schrijven ipv die, lijkt mij een<br>beetje tegen de taalregels geleerd op<br>school ('I would write hij instead of<br>die, seems to me to go against the<br>language rules taught in school.')  |

|             |                 | No explicit reason                   | 11 | (9)  | Het verwijswoord die wekt wel wat irritatie op. ('The reference word die does elicit some irritation.')  |
|-------------|-----------------|--------------------------------------|----|------|--|
|             |                 | Oral langu-<br>age use               | 8  | (10) | Spreektaal met "die" en geen<br>schrijftaal ('Spoken language with<br>"die" and not written language')   |
|             |                 | Impersonal                           | 4  | (11) | Het gebruik van 'die' is meer voor<br>dingen, niet voor mensen. ('The<br>use of 'die' is more for things, not<br>people.')   |
|             |                 | Looks ugly/<br>clunky                | 5  | (12) | De 'die' is enorm lelijk. ('De 'die' is incredibly ugly.')   |
|             |                 | Worse than<br>generic <i>die</i>     | 3  | (13) | Ik stoor mij minder aan 'die' dan<br>in andere zinnen omdat ik geen<br>naam krijg voor de professor<br>("Die' bothers me less than in other<br>sentences because I am not given a<br>name for the professor')  |
| Generic die |                 |                                      |    |      |  |
|             | Positive stance |                                      | 33 |      |  |
|             |                 | Gender-<br>inclusive                 | 13 | (14) | Ik denk dat 'die' kan. 'Hij/zij' zou ook kunnen maar gezien de huidige evolutie naar genderneutraal taalgebruik opteer ik voor 'die'. ('l think 'die' is possible. 'Hij/zij' is also a possibility but considering the current evolution towards gender-neutral language use l opt for 'die'.')  |
|             |                 | Better than<br>binary <i>hij/zij</i> | 10 | (15) | "Hij/zij" is een struikelblok, "die"<br>zou beter passen. ('"Hij/zij" is a<br>hindrance, "die" would fit better.')   |
|             |                 | Matter of<br>habit                   | 6  | (16) | Hoe langer ik zinnen lees hoe minder<br>storend het is dat er geen zij of hij<br>staat ('The longer I am reading the<br>sentences, the less bothersome it is<br>that there is no zij or hij')  |
|             |                 | Better than<br>specific <i>die</i>   | 3  | (17) | Hier wordt ook 'die' gebruikt, maar<br>hier wordt voorafgaand het beroep<br>gebruikt in plaats van de naam dus<br>hierbij 'klinkt' het minder vreemd<br>dan wanneer de eigennaam wordt<br>gebruikt. ('Here, 'die' is used as<br>well, but here the profession is<br>used instead of a name so here it<br>'sounds' less strange than when the<br>proper name is used.') |

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|                | No explicit<br>reason               | 1  | (18) | Ik vind dit een goede zin en ik weet (of vermoed) dat 'die' naar 'jeugdauteur' verwijst. ('I think this is a good sentence and I know (or suspect) that 'die' refers to the 'youth author'.')  |
|----------------|-------------------------------------|----|------|--|
| Neuti<br>stanc |                                     | 2  | (19) | In deze zin is de "die" minder irriterend. ('In this sentence the 'die' is less irritating.')  |
| Nega<br>stanc  |                                     | 76 |      |  |
|                | Worse than<br>binary <i>hij/zij</i> | 20 | (20) | Het woord "die" kan beter vervangen<br>worden door het woord "hij/zij". ('The<br>word "die" had better be replaced<br>by the word "hij/zij".")   |
|                | Worse than<br>generic<br>masculine  | 22 | (21) | Ze hadden beter naar de auteur<br>kunnen verwijzen als hij ipv die<br>('They should have referred tot he<br>author as hij instead of die')   |
|                | Ambiguous                           | 11 | (22) | Wie wordt bedoeld met "die"? ('Who is meant by "die"?')  |
|                | Wrong/un-<br>grammatical            | 2  | (23) | Verkeerd gebruik van het aanwijzend<br>voornaamwoord (i.p.v. een persoon-<br>lijk voornaamwoord) ('Wrong use<br>of the demonstrative pronoun<br>(instead of a personal pronoun)')  |
|                | No explicit<br>reason               | 11 | (24) | Ik vind opnieuw het woordje "die"<br>niet helemaal gelukkig gekozen<br>('Again, I find the word "die" not<br>very well-chosen')  |
|                | Oral langu-<br>age use              | 7  | (25) | Dit lijkt opnieuw op een zin die je<br>vindt in de spreektaal en niet in een<br>geschreven context. ('Again, this<br>looks like a sentence you would<br>find in spoken language and not in<br>a written context.')   |
|                | Impersonal                          | 3  | (26) | 'die' verwijst naar voorwerpen en misschien naar dieren, planten afhankelijk van de relatie die de spreker heeft met het ding, dier, plant maar 'die' verwijst niet naar mensen (''die' refers to things and maybe animals, plants depending on the relationship the speaker has tot he ding, animal, plant but 'die' does not refer to people') |

| Generic hij/<br>zij |                   |                          |    |      |   |
|---------------------|-------------------|--------------------------|----|------|---|
|                     | Positive stance   |                          | 32 |      |   |
|                     |                   | Gender-<br>inclusive     | 12 | (27) | Het is goed dat doorheen de volledige zin moeite gedaan wordt om voor een genderinclusieve beschrijving te kiezen ('It's good that throughout the sentence, an effort is made to choose gender-inclusive descriptions')         |
|                     |                   | Better than die          | 20 | (28) | Ik stoor mij telkens aan die 'die'. Ik<br>zou het veranderen door 'hij/zij' ('The<br>'die' bother me every time. I would<br>replace it by 'hij/zij'')   |
|                     | Neutral<br>stance |                          | 4  | (29) | De optie hij/zij irriteert mij niet en<br>maakt het lezen niet moeilijker. ('The<br>option hij/zij does not irritate me<br>and does not make reading more<br>difficult.')   |
|                     | Negative stance   |                          | 41 |      |   |
|                     |                   | Not gender-<br>inclusive | 11 | (30) | Een dergelijke zin vind ik ook<br>niet correct omdat in dat geval<br>genderneutrale personen worden<br>uitgesloten. ('I also find such a<br>sentence incorrect because in that<br>case gender-neutral people are<br>excluded.') |
|                     |                   | Worse than die           | 10 | (31) | "Hij/zij" kon hier "die" zijn. ('"Hij/zij" could have been "die" here.')  |
|                     |                   | Looks ugly/<br>clunky    | 14 | (32) | hij/zij, hoewel correct, vind ik niet<br>mooi (ik zie niet graag slashes in een<br>zin) ('I don't like hij/zij, even though<br>it's correct (I don't like seeing<br>slashes in a sentence)')                                    |
|                     |                   | No explicit reason       | 6  | (33) | Het gebruik van 'Hij/zij' stoort me<br>wat. ('The use of 'hij/zij' bothers me<br>a bit.')   |