GENDER-INCLUSIVITY IN ENGLISH PRONOUN SELECTION BY L1 ENGLISH AND SPANISH SPEAKERS

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Abstract: As a language with notional gender (McConnell-Ginet 2015), English assigns gender in its third person pronominals i.e. *she* and *he*. Recent years have seen the emergence of the gender- neutral pronoun singular *they*. Singular *they* is often the pronoun that transgender and nonbinary individuals have others use to refer to them. This study aims to investigate whether, native speakers of a language like Spanish that has grammatical gender, have acquired singular *they* and whether gender plays a role in the acquisition of this English gender-neutral pronoun. Previous studies have demonstrated that certain communities of practice are more likely to accept and use singular *they* than others (Conrod 2019; Ackerman 2020). Thus, I hypothesized that nonbinary individuals would lead in the use of singular *they*. It was also hypothesized that, due to language transfer from a grammatically gendered L1, and classroom instruction having not yet adopted singular *they*, L1 Spanish speakers would lag behind L1 English speakers in their application of singular *they*. One hundred participants completed an online questionnaire which required them to choose a pronoun which best described a single individual in an image. Participants could choose from *he, she* and singular *they*. Results showed that, as hypothesized, nonbinary individuals lead in the use of singular *they*. From this, community of practice and social motivation are highlighted as factors at play in its higher rates of application amongst nonbinary individuals. Also found which conflicted the hypothesis, was that L1 Spanish participants applied singular *they* more than L1 English participants. To explain this, it is suggested that non-native English speakers perhaps have an easier time acquiring singular *they* than L1 English speakers, as for these speakers, there requires no reassignment of long- established features in the pronominal system (Konnelly and Cowper 2020;Lardiere 2008). Also addressed is the use of the Spanish gender-neutral pronoun *elle* in aiding the acquisition of singular *they*.

Keywords: Gender, gender identity, pronouns, singular *they*, English, Spanish,

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Abstract

As a language with notional gender (McConnell-Ginet 2015), English assigns gender in its third person pronominals i.e. *she* and *he*. Recent years have seen the emergence of the gender-neutral pronoun singular *they*. Singular *they* is often the pronoun that transgender and nonbinary individuals have others use to refer to them. This study aims to investigate whether, native speakers of a language like Spanish that has grammatical gender, have acquired singular *they* and whether gender plays a role in the acquisition of this English gender-neutral pronoun. Previous studies have demonstrated that certain communities of practice are more likely to accept and use singular *they* than others (Conrod 2019; Ackerman 2020). Thus, I hypothesized that nonbinary individuals would lead in the use of singular *they*. It was also hypothesized that, due to language transfer from a grammatically gendered L1, and classroom instruction having not yet adopted singular *they*, L1 Spanish speakers would lag behind L1 English speakers in their application of singular *they*. One hundred participants completed an online questionnaire which required them to choose a pronoun which best described a single individual in an image. Participants could choose from *he, she* and singular *they*. Results showed that, as hypothesized, nonbinary individuals lead in the use of singular *they*. From this, community of practice and social motivation are highlighted as factors at play in its higher rates of application amongst nonbinary individuals. Also found which conflicted the hypothesis, was that L1 Spanish participants applied singular *they* more than L1 English participants. To explain this, it is suggested that non-native English speakers perhaps have an easier time acquiring singular *they* than L1 English speakers, as for these speakers, there requires no reassignment of long-established features in the pronominal system (Konnelly and Cowper 2020;Lardiere 2008). Also addressed is the use of the Spanish gender-neutral pronoun *elle* in aiding the acquisition of singular *they*.

1 Introduction

Across languages, speakers have made efforts to make the establishment of gender-neutral pronouns such as singular *they*, closer to that of traditional binary pronouns such as *he* and *she.* The English language has seen the formation of neopronouns such as *Ze* and *E* and the evolution of *they* to refer to singular antecedents, rather than plural antecedents. Spanish has had the addition of *elle* and Swedish the innovation of *hen*. This study investigates the application of singular *they* in English across genders in L1 English and Spanish speakers. It was posited that Spanish L1 participants would make less use of singular *they* than L1 English participants due to language transfer and instructed English L2 acquisition having not yet adopted singular *they*. It was also predicted that nonbinary individuals would lead in singular *they* application, based on evidence that certain communities of practice are more likely to produce and accept singular *they* for singular specific individuals (Conrod 2019; Ackerman 2020).

Section 2 of this discussion provides some background to singular *they* and other gender-neutral aspects of language. Section 4 presents the methods and procedures used to carry out data collection and analysis. In section 3, the types of gender relevant to the present study and discussion are outlined. Section 5 presents a quantitative analysis of the data collected in the form of distributional and statistical analyses and section 6 provides potential explanations for the patterns found in the data. Section 7 considers some limitations to the methods and procedures used and the paper is concluded section 8.

2 Background

2.1 Singular *They*

As transgender and nonbinary identities are becoming more visible, the demand for nonbinary language is growing. Singular *they* is often the pronoun that nonbinary individuals have others use to refer to them in the third person. In recent years, singular *they* has received more attention in the media as there has been a shift to more people being publicly transgender or nonbinary; Zimman (2017) notes that the 2010s were a decade of transgender identity.

However, not all of this attention has been positive, the championing of singular *they* and of other alternative pronouns has been criticised as an insistence on non-standard language. As a result of the growing community of publicly transgender and nonbinary individuals, the idea that some people fall on neither side of the slash in 'he/she' is becoming more customary to the cisgender population. To avoid the psychologically disruptive process of misgendering (McLemore 2015), the utilization of gender-neutral pronouns is imperative.

2.1.1 A Brief History

Singular *they* can be traced back to its earliest recorded occurrence to 1375 in *William and the Werewolf*. The context of its usage can be seen in modern English in (1) below:

(1) *Each man* hurried . . . till *they* drew near . . . where William and his darling were lying together

Later (but still early) instances of singular *they* have been noted by Bjorkman (2017: 3):

(2) a. Shakespeare (A Comedy of Errors 1623)
There's not *a man* I meet but doth salute me
As if I were *their* well-acquainted friend
b. Swift (Polite Conversation 1738)
Every fool can do as *they're* bid.

For the duration of the Modern English period, *they* was not only accepted, but frequently used with 'indefinite, quantificational and epicene antecedents' (Bjorkman 2017: 3). The initial disapproval of singular *they* was brought into force when Murray (1795) published his *English Grammar*. He argued that *they* can only be correct when the person in which it refers to, agrees in number and gender. For Murray, and other prescriptivist grammarians, instances with singular, indefinite antecedents breached number concord. Bjorkman (2017) looked at how the distribution of singular *they* has broadened and how it is, nowadays, not limited to the same

tighter constraints that it once was. They[1] note that now, speakers accept *they* with a singular, specific, definite referent whose gender is known to both interlocutors in conversation as in (3) below:

(3) The cleaner told me that they broke the door.

Also speculated is the fact that speakers who accept utterances like that of (3) above, do not always necessarily accept instances of singular *they* where the antecedent holds the same properties but are realised as a proper name or a gender-specific noun as in those in (4):

(4) a. Joseph said they were late for the appointment.
b. My sister bought a car for themselves.

After Bjorkman's study on the syntactic acceptability of singular *they*, Conrod (2019) studied the sociolinguistic variability in the production and acceptability of singular *they*. Their focal points of investigation were chronological age and gender. They found that transgender/nonbinary individuals lead in the use of singular *they*, followed by women. The results presented in this study coincide with these findings. Conrod (2019) also found that older participants deemed singular *they* less acceptable than their young and middle-aged counterparts; the highest production of singular *they* was among speakers aged between 20 and 35.

2.1.2 Previous Work

One aspect of singular *they* which has received criticism is its processing. It has been found that processing is hindered when singular *they* refers to an antecedent with a 'mismatched' gender (Sanford and Filik 2007; Doherty and Conklin 2017), that is, when the gender of the referent adopts a lexical property (perhaps 'feminine' or 'masculine') that is not congruent with

[1] I will use singular *they* to refer to any individual whose pronoun I know to be 'they' or if their gender is unknown to me.

that of singular *they*'s neutral property (see for example Ackerman (2019)). Earlier research found that singular *they* requires more processing effort when the antecedent does not 'agree' in number; Foertsch and Gernsbacher (1997) observed that processing effort was higher when singular *they* was read with a singular referential antecedent whose gender was implied. More recently, Prasad and Morris (2020) investigated the processing of singular *they* by analysing P600 responses to a series of sentences which varied in antecedents and anaphors. The participants of the study included individuals who had frequent interactions with nonbinary people or who were themselves nonbinary. They hypothesized that nonbinary individuals and individuals who had frequent interactions with other nonbinary people, would be able to cognitively detach the gender from antecedents with unambiguous gender (like typically gendered names e.g. *John*). This idea has been previously considered by other scholars, too (e.g. Ackerman 2017). Their results were not consistent with their hypotheses and were in line with those found previously (e.g. Foertsch and Gernsbacher 1997), that processing effort was increased when the anaphora *themselves* was co-indexed with a referential antecedent whose gender was unambiguous, like *Mary.* They suggest that despite singular *they*'s increased usage in such environments, the processing time has not been reduced by this increase in usage. It has also been found that grammatical acceptability of singular *they* (in both singular, specific and epicene contexts) correlates with attitudes towards transgender identities; higher acceptability was generally found to match up to more positive attitudes towards transgender individuals (Hernandez *et al.* 2018 cited in Konnelly and Cowper 2020).

Konnelly and Cowper (2020) explored the acquisition process of singular *they*. They propose that there are three stages of acquisition which users of singular *they* undergo in order to acquire it as an acceptable member of the grammar to reference a singular, specific antecedent. At Stage 1, singular *they* co-indexes a quantified antecedent of unknown gender e.g. *the person*. At Stage 2, singular *they* refers to an antecedent with implied gender, but an ungendered description or name e.g. *Kelly*. At Stage 3, singular *they* co-indexes a referent of any gender, with no restriction on description or name e.g. *Maria*. The authors argue that the pronoun system remains unchanged (from Stage 1) at Stage 2, but that generally, antecedents still carry a gendered lexical property (*feminine* or *masculine*) but the amount of antecedents which cognitively adopt a neutral gender feature increases, as does the application of singular

they. The authors claim that, for speakers at Stage 3, the pronoun system has been reassembled, as the feature of an antecedent is assigned from a tertiary split of features (rather than more of a binary split such as in Stage 2) resulting in the application of singular *they* as a default. This reassembly of the pronoun system for speakers at Stage 3 is used later on in this paper to provide a potential explanation to the fact that, in the data here, L1 Spanish participants used singular *they* more than L1 English speakers.

Whilst, generally, previous research has focussed on the processing, acceptance, and application of singular *they,* there is a shortage of literature and research that adopts a sociolinguistic approach to the topic that also explores its acquisition and the sociolinguistic influences on this acquisition. Thus far, to my knowledge, there are no other studies that explore the cross-linguistic application of singular *they* across genders. It is this gap that the present study aims to fill; will transgender/nonbinary affiliation appear to be a significant predictor in singular *they* usage? And can Spanish L1 speakers of English successfully learn a novel pronoun?

2.2 Other Gender-neutral Pronouns in English

Although other gender-neutral pronouns exist in English such as *ze/zir, ey/eir*, these generally are not recognised by many English speakers (Bradley et al. 2019). This was demonstrated in Darr's (2016) work on pronoun usage amongst college students; the data revealed that only singular *they* was applied by the students and no neopronouns like *ze* appeared in the data. The Swedish gender-neutral pronoun *hen* however, is a neopronoun that has not only become well established in terms of its frequency of use, but general perceptions about the pronoun have also improved considerably (Gustafsson *et al.* 2015).

This is of interest to the present study as it is telling of the fact that the development and advancement of these pronouns is not particularly stable and that singular *they* and its non-novel nature to native English speakers has perhaps been facilitating in its adoption; singular *they* has consistently been referred to as the 'solution' to the English language's lacking of a gender-neutral third person pronoun (Baron 2020). The increased use of new gender-neutral pronouns like *hen* and singular *they* could pave the way for the development and increased use and acceptance of other gender-neutral pronouns like the ones noted above.

2.3 Gender-neutral pronouns in Spanish

As a Romance language which has grammatical gender as a morpho-syntactic category, (Stahlberg *et al.* 2007), one area in which this grammatical gender is manifested is in its nouns, unlike languages like English with a notional gender system (McConnell-Ginet 2015). In Spanish, all nouns, adjectives, determiners, passive participles, and pronouns are assigned a grammatical gender and all parts in a sentence must agree. Like many languages, Spanish third person pronouns are also gendered, unlike English however, the Spanish third person plural pronouns are gendered; *ellos/ellas*. It was on these grounds for which the research questions of this study arose; if a native speaker of a grammatically gendered language learns a language with notional gender, will that speaker transfer and apply their grammatical tendencies across pronominal paradigms? And what role will gender play in this?

Like English speakers, Spanish speakers have innovated gender-neutral pronouns to provide neutral alternatives for its population who do not fall within the gender binary. One of these is *elle*. Pronouns are only one example of the attempts to make language more gender-neutral, the suffixes *-x* and *-@* can be applied to adjectives in written Spanish, e.g. *Latin@*, these phenomena have been noted to have been innovated in Latin America (namely, Argentina and Uruguay) and Spain by activists and protestors in the 90s (Bowles 2018). The use of *-@* has however, been criticised; an article on The Washington Post Online read '[t]he popularized use of this form, however, has angered some Spanish speakers, who see it as a token term imposed on Spanish by American English speakers rather than an inclusive move from within' (Berger 2019). Despite its criticism, Bengoechea (2011) found that, amongst a sample of university students in Madrid, the suffix *-@* was accepted by both women and men.

Likewise, López (2002) draws attention to the use of Direct Nonbinary Language (DNL), the language that forthrightly includes nonbinary people. The two ways in which they state that this is advancing, is mainly through the use of the morphemes *-e*, *-x* and *-i* and omitting the gendered suffixes *-o* or *-a*. Such innovative uses of language are all part of a movement to make language gender-inclusive, a movement of which singular *they*, is a crucial member.

2.4 Misgendering

A discussion on singular *they* would be incomplete without discussing the motive for which singular *they* in singular specific contexts arose. The act of misgendering is defined by Simpson and Dewaele (2019: 105) as 'referring to a person not using the form of gender reference that the person expects or prefers – generally this is the person's socially presented gender; for cisgender people, this aligns with their natal gender, for transgender it may be fixed or may vary'. Being misgendered is a damaging, and psychologically traumatic occurrence for transgender individuals (McLemore 2015). For an outline on the nature and intent of transgender-oriented misgendering acts, see Simpson and Dewaele (2019: 105).

Misgendering someone can be carried out with varying intents; it could be a cisgenderist attack on someone's gender, or an unintentional slip of the tongue. Nonetheless, '[w]hen a transgender or genderqueer person is misgendered, regardless of whether it was intentional, this communicates disrespect of their already marginalized gender identity' (Dembroff and Wodak 2018: 376).

In the two studies in McLemore (2015), 30.4% (in Study 1) and 32.8% (in Study 2) of participants reported that they are *often* misgendered. Singular *they* exists and is used so that these individuals, when efforts are made by others to use the correct language when speaking about them/to them, do not feel stigmatized due to incorrect language use that misgenders them. Interesting too, is the fact that 'to misgender', only recently acquired a definition in the Oxford English Dictionary, this itself reflects the lack of acknowledgement and recognition of which it is given.

3 Defining Gender

There are several different types of gender, this section aims to outline the few types of gender relevant to the present study and following discussion. This section was influenced by Ackerman's (2019) review of the types of gender relevant to their proposal.

3.1 Grammatical Gender

Grammatical gender is the phenomenon whereby components of a sentence must agree in gender with the gender classification of the noun. In Spanish, gender is a morpho-syntactic feature, that is, grammatical gender in Spanish is morpho-syntactically prescribed to its verbs and adjectives. To illustrate: the noun *ciudad* (city) is assigned the feminine gender with the definite determiner *la.* To say *the pretty city was built*, one must grammatically agree the adjective *pretty* and the passive participle *built* by adding the feminine suffix *-a* rather than the masculine suffix *-o*; *l**a** ciudad bonit**a** fue construid**a*** (e.g. Corbett 1991; Schriefers and Jescheniak 1999).

3.2 Gender Role

The gender role is a series of social norms and expectations to which society expects members of gender groups to conform. For example, that a man should dress and act like a man and be masculine, physically strong and perhaps display emotion less openly than people of other genders. This notion of gender fits into the present study as the participants are conceiving the gender of the individual in the stimuli, potentially based on gender norms e.g. ways of dressing. For example, participants may infer that an individual in an image is a man if they are particularly muscly and vice versa with women; if an individual is wearing a dress in one of the stimuli, participants may infer that this person is a woman and therefore, perhaps use the pronoun *she* (e.g. O'Beaglaoich *et al.* 2015; Richmond *et al.* 2015).

3.3 Conceptual Gender

Conceptual gender is when the gender of a person is inferred by another based on gender expression. For example, someone might infer from the fact that someone has long hair, that they are a woman, thus leading them to use language in a way that acknowledges this, perhaps with the pronoun *she.* To illustrate: the gender that is conceived by person A of person B, may not be the actual gender of person B, potentially leading to person B being misgendered. In the present study, participants are perceiving and conceiving the gender of the individuals within

the images in order to choose the pronoun which they think best refers to them (e.g. Armann and Bülthoff 2012).

3.4 Gender Expression

Gender expression is the way in which a person expresses their gender identity and demonstrates their membership within a gender category. More simply put, gender expression is the way in which people 'do' their gender (West and Zimmerman 1987). Gender expression points others to the potential gender identity of oneself. In the present study, the 'gender identity'[2] of the individuals within the images is expressed in various ways. For example, through clothing and accessories; figure B8 in Appendix B (an image that was classified as feminine in the norming study) shows a person wearing hoop earrings, an accessory typically viewed as feminine. Gender expression leads others to perceive other's gender identities leading them to make choices on gender-correct language (e.g. Anderson 2020; Sevelius *et al.* 2021).

3.5 Gender Identity

Gender identity is a multidimensional construct that encompasses several gender-related concepts, like the ones discussed above. Generally speaking, it is a mental state and personal sense of one's own gender. Gender identity is built on an individual's felt membership within a gender group/category and the ways in which they express their gender. Gender identity is the most common understanding of gender[3] and is the basis on which the participants in this study were classified (e.g. Losty and O'Connor 2018).

[2] I use inverted commas here as the stimuli consists of illustrations of individuals, they are not photographs of individuals and so any potential gender identity of these individuals can only be inferred

[3] Perhaps aside from the misconception that biological sex and gender are synonymous terms.

4 Methodology

4.1 Data Collection

Data was collected through an online questionnaire. The study was hosted by Gorilla, an online survey builder and data collection site. A set of stimuli were presented to the participants and they were required to form a sentence that best described the image from two dropdown lists provided. The first dropdown list contained a list of pronouns: 'He', 'She' and 'They', the second dropdown list presented a list of predicates. Only one predicate accurately described the image, the other two were randomly selected. The collection of the predicate data was purely a distraction strategy, so that the questionnaire would not reveal the research questions of the study potentially causing participants to respond untruly. Stimuli were presented individually, so that other stimuli would not influence participants' responses.

4.2 The Stimuli

The illustrations used in this study were commissioned for the University of Oslo for another project (Ribu 2020). The stimuli consisted of 20 images. All were illustrations of people undergoing activities (e.g. knitting, baking, running, see Appendices A, B and C). A gender norming study was run to assure that my own perceptions of the 'gender identities' of the individuals in the images were consistent with others'. From the gender norming study, 8 of the images were considered as having a feminine gender, 8 a masculine, and 4 a nonbinary/unknown. The results of this gender norming study are used for reference in the analysis later in this paper.

4.3 Participants

4.3.1 Participant Demographic

A total of 100 participants were recruited for this study. Of these, 52 had English as an L1 and 48 had Spanish or Spanish and English as an L1. Participants that learned Spanish and

English simultaneously were coded as Spanish L1. Table 1 presents the demographic categories of the participants.

	Spanish L1	English L1
Women	30	33
Men	8	12
Nonbinary	8	6
Other	2	1

Table 1 Participant demographic categories

4.3.2 Participant Gender Classification and Coding

Participant gender was collected within the demographics section of the experiment in a free-form text style. The free-form nature of this question was chosen so that participants could be as elaborate (or not) as they chose when disclosing information about their gender identities. Participants were categorically coded for gender identity to either one of the following groups: women, men, nonbinary, other. Some participants responded to the free-form gender identity question with their biological sex, i.e. 'male' or 'female'. For some people, gender and biological sex are terms often used interchangeably/synonymously with one another (Prince 2005). Thus, participants who responded 'female' were grouped under 'women' and participants who responded 'male' were grouped under 'men'.

Other responses to the free-form gender question included 'she' and 'feminine', these responses were binned into the 'women' gender category. The responses 'cis female/questioning nonbinary', 'nonbinary woman' and 'I don't know' were grouped into an 'other' gender category as there was no clear alignment to any other gender category. One participant responded with the character 'f', this was assumed to represent 'female' and so this participant was grouped into 'women'.

4.3.3 Participant Recruitment

Participants were recruited via social media platforms like Instagram, Facebook and Twitter. The link was posted online with a brief outline of the participation criteria i.e. that they must be over the age of 18 years old and be a native speaker of either English, Spanish or both and

an English language user. On clicking the link, participants were directed to the experiment introduction and consent form where they were informed on the nature of the experiment and their rights in participating.

4.4 The Dataset

A total of 100 participants, responding to 20 pronoun selection questions comprised a dataset of 2000 tokens. Gorilla (the survey builder that was used to construct the experiment) does not allow users to make the prompt text of the dropdown field (for this experiment 'PRONOUN…' and 'PREDICATE…', see Appendix D for example questions that illustrate this) not appear in the clickable dropdown lists. As a result of this, 6 responses were excluded from the analysis as the participants either accidentally selected the prompt text, pressed 'next' twice (leading them to miss a question) or were unsure how to respond and so left the question unanswered. Four of these responses were also missing a chosen predicate, thus it is likely that these participants accidentally skipped a question. The other two responses had the correct predicate selected, so perhaps the participants were unsure how to respond to these stimuli. Of these excluded responses, four of them were for nonbinary/unknown images and one response was excluded for each a feminine image and a masculine image.

4.5 Statistical Analyses

To statistically analyse the data, regression analyses using a mixed-effects model were run in the Language Variation Suite (Scrivner and Diaz-Campos ND), a website run from R. To account for inter-stimulus and inter-participant variability, 'participant' and 'stimulus' were selected as random effects in the statistical model. A statistical analysis was run for all image types, and then for each image type (feminine, masculine, nonbinary/unknown) separately. Using a Bonferroni correction, the second and third analyses with the baselines *nonbinary* and *women* are accounted for by reducing the alpha level for gender to 0.0167. The alpha level for L1 remains at <0.05 as there is no need for a Bonferroni Correction for this factor as only one null hypothesis is being tested.

5 Results

This section provides a quantitative analysis of the data collected in the present study. Firstly, I take a general overlook at the pronoun responses across all stimuli for participant gender (Figure 1). Secondly, the focus turns to the pronouns chosen across all images based on participant L1 (Figure 2).

The focus then narrows to each image type/gender (image gender classification is outlined in section 4.2) where I show the relative frequencies of pronoun responses for participant gender and L1 separately. Afterwards, participant L1 and gender are analysed together to identify the interactions between participant gender and L1 in pronoun selection for each image type. For clarity, sections and figures are accompanied by tables presenting raw tokens and relative frequencies.

5.1 The Overall Effect of Gender

The figure below (Figure 1) illustrates that the overwhelming majority of pronouns selected by nonbinary individuals was singular *they*, and that they selected singular *they* more than every other gender group. Table 4 illustrates that gender is only a significant predictor in the adoption of singular *they* when the nonbinary individuals are considered; statistically significant results are revealed only when nonbinary individuals are compared to men (β= -7.78, SE= 1.28, z(1994)= -6.10, p= <0.001; Table 4) and women (β= -7.03, SE= 1.11, z(1994)= -6.33, p= <0.001; Table 4). It seems that men and women, overall, performed similarly. However, on closer inspection, it is apparent that women used singular *they* more than men (β= 0.75, SE= 0.84, z(1994)= 0.90, p= 0.37; Table 4) though not significantly so, whilst men made more use of binary pronouns (75% by men vs 68% by women; Table 2). The 'other' genders lagged behind nonbinary people in the selection of singular *they* by around 22 percentage points (henceforth, pp; Table 2) but this proved not to be statistically significant (β= -3.29, SE= 2.17, z(1994)= -1.52, p= 0.13; Table 4). Overall, it appears that the biggest differences in singular *they* application lie between binary genders (men and women) and other genders (nonbinary and 'other'). Smaller, somewhat more subtle differences between both the binary genders (men and women), and between other genders (nonbinary and 'other').

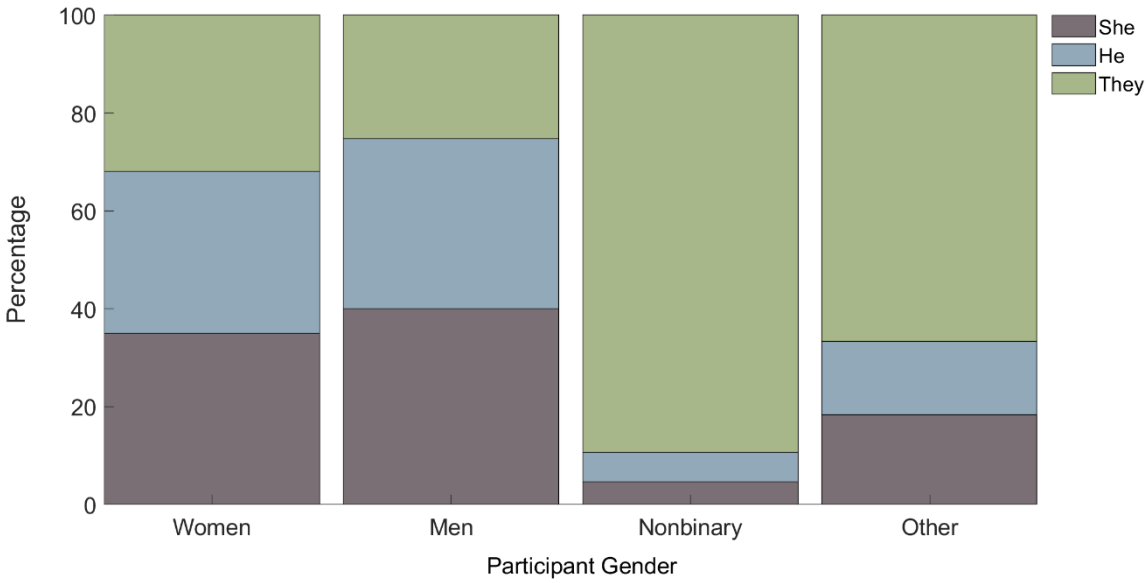

Figure 1 Distribution of responses by participant gender across all stimuli

Participant Gender	Pronoun Selected		
	She	He	They
Women	439 (35)	415 (33)	400 (32)
Men	160 (40)	139 (35)	101 (25)
Nonbinary	13 (5)	17 (6)	250 (89)
Other	1 (18)	9 (15)	40 (67)

Table 2 Distribution of responses by each participant gender across all stimuli (relative frequencies to two significant figures in parentheses)

5.2 The Overall Effect of L1

Figure 2 below illustrates the proportion of pronoun selections made by each L1. For the binary pronouns, both L1 categories appeared to respond similarly, the distinction between the two L1 groups can, however, be seen within the application of singular *they*; 56% of the singular *they* selections were made by Spanish/both speakers, the rest (44%) were made by L1 English participants (Table 3). A statistical analysis on the effect of L1 on pronoun selection, indeed revealed that a Spanish L1 favoured singular *they*, but this was not statistically significant (β= 1.29, SE= 0.67, z(1994)= 1.94, p= 0.0525; Table 4). The smaller

magnitude of the absolute estimate of L1 (1.29; Table 4) in comparison to the absolute estimates of gender (-7.78,-3.29,-7.03;Table 4) points to gender having a stronger overall effect on *they* usage than L1.

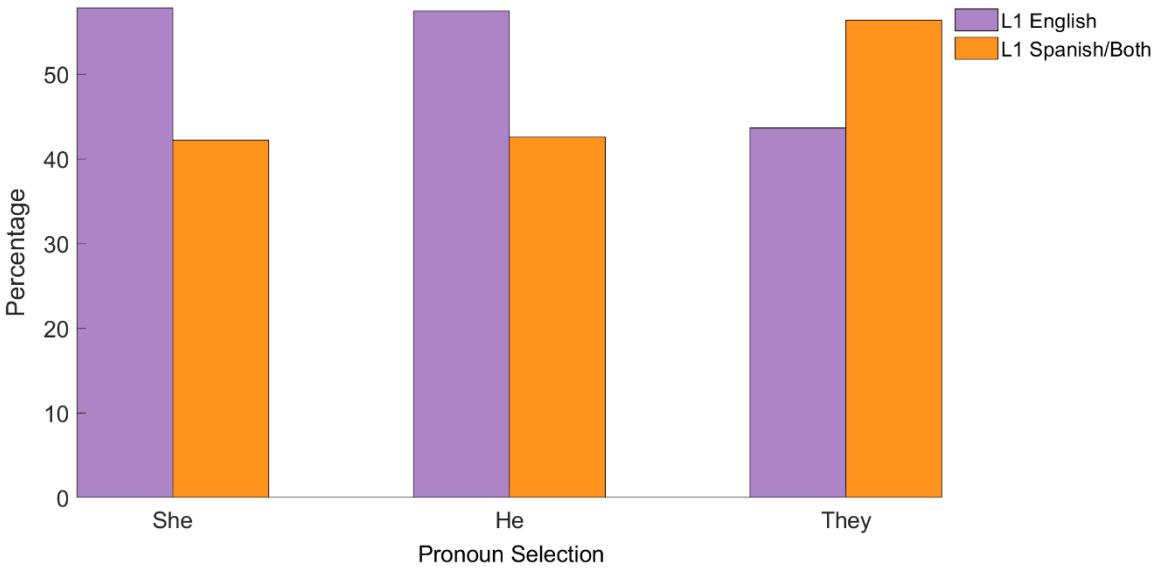

Figure 2 Distribution of responses by participant L1 across all stimuli

Participant L1	Pronoun Selected		
	She	He	They
English	360 (58)	333 (57)	345 (44)
Spanish/Both	263 (42)	247 (43)	446 (56)

Table 3 Distribution of pronoun selection by participant L1 across all stimuli (relative frequencies to two significant figures in parentheses)

Predictor Level	Estimate	Std. Error	Z-Value	Pr(>|z|)
Men (baseline)				
other	4.49	2.08	2.16	0.03
women	0.75	0.84	0.90	0.37
Intercept	-3.06	0.93	-3.30	0.00095
Nonbinary (baseline)				
men	-7.78	1.28	-6.10	<0.001**
other	-3.29	2.17	-1.52	0.13
women	-7.03	1.11	-6.33	<0.001**
Intercept	4.72	1.16	4.07	<0.001
Women (baseline)				
other	3.74	1.98	1.89	0.06
Intercept	-2.31	0.71	-3.24	0.001
English L1 (baseline)				
Spanish L1	1.29	0.67	1.94	0.0525

Table 4 Regression analysis results for predictor significance on pronoun selection (represents statistical significance)**

5.3 The Combined Effects of Participant Gender and L1

Figure 3 below presents the interaction of participant gender and L1 in relation to pronoun responses. In section 5.1 we saw that nonbinary individuals lead in the application of singular *they* in this context, but Figure 3 reveals the degree to which the Spanish L1 nonbinary individuals responded with singular *they* in contrast with the English L1 nonbinary participants. Spanish L1 nonbinary participants produced around 21pp more (Table 5; 158 (98%) by Spanish L1 nonbinary participants vs. 92 (77%) by English L1 nonbinary participants) singular *they* responses than English L1 nonbinary participants.

Section 5.2 stated that, speakers of both L1s appeared to use the binary pronouns i.e. *he* and *she* to similar proportions (Table 3). However, an imbalance in this observation is revealed when gender is considered, too. Figure 3 clearly displays that L1 Spanish speakers of binary genders (that is, men and women) selected singular *they* to similar proportions. This same trend cannot be observed within the English L1 speakers of binary genders; there is a difference of

8pp between English L1 men and women selecting *she* and 7pp between L1 men and women selecting *he* (Table 5).

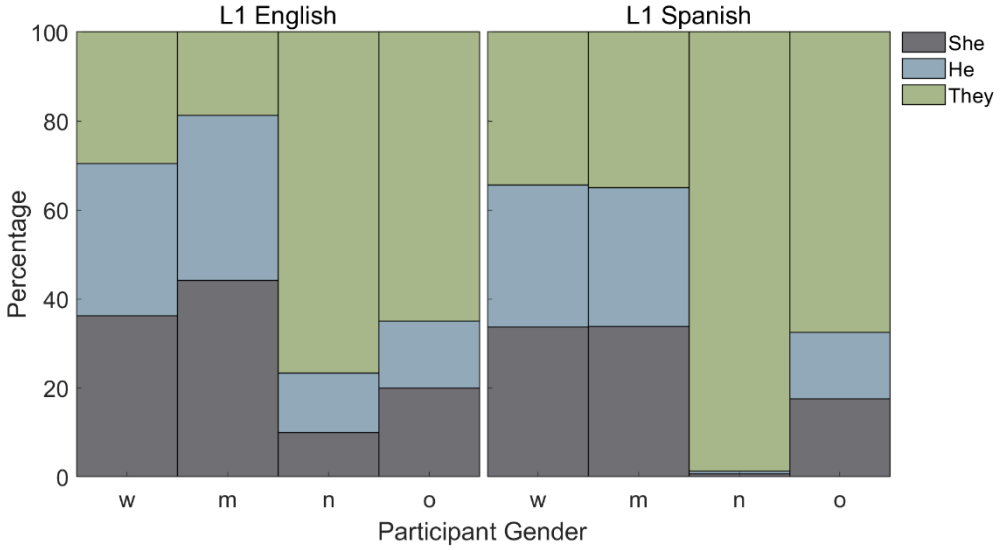

Figure 3 Distribution of responses by participant gender and L1 across all stimuli

Participant Gender	English L1			Spanish L1		
	She	He	They	She	He	They
Women	238 (36)	225 (34)	195 (30)	201 (34)	190 (32)	205 (34)
Men	106 (44)	89 (37)	45 (19)	54 (34)	50 (31)	56 (35)
Nonbinary	12 (10)	16 (13)	92 (77)	1 (1)	1 (1)	158 (98)
Other	4 (20)	3 (15)	13 (65)	7 (17)	6 (15)	27 (68)

Table 5 Distribution of responses by participant gender and L1 across all stimuli (relative frequencies to two significant figures in parentheses)

5.4 The Effect of Participant Gender Across Image Type

For the feminine images, a low quantity of the pronoun responses were ‘he’ (5, out of 799 tokens in total). Likewise, for the masculine images, a low proportion were ‘she’ (2, out of 799 tokens in total). Such responses are considered a ‘gender mismatch’ and are not directly discussed in the following results as their presence is so negligible. The explanations for such

responses vary from, participants intending to disrupt the experiment, a 'misclick' when completing the experiment, genuinely conceiving the gender of the person in the image differently and, refraining to answer honestly to convey aversion to the nature of the study. The following section reports the distributions of pronoun selection regarding image type/gender (feminine, masculine, nonbinary/unknown), and participant gender.

Figure 4 and Table 6 present the pronoun responses by participant gender across gender/type of stimuli. For the nonbinary/unknown stimuli, all gender categories responded with *they* more than for the feminine and masculine images. Around 74% of the women's responses were *she* to the feminine images, leaving just over one quarter of them responding with *they*. The women responded to the masculine and feminine images in relatively similar proportions, with only 1pp more singular *they* responses for the feminine images than for the masculine images (Table 6). The women appear to apply singular *they* approximately 38pp more for the nonbinary/unknown images than for the masculine and feminine images (Table 6). Interestingly, both genders favoured *she* considerably more than *he* for the nonbinary/unknown images.

Likewise, the men responded with singular *they* to the feminine and masculine images to similar proportions, though they differ from the women in that they selected singular *they* more for the masculine images than for the feminine images, though it must be noted that this difference is marginal. Interestingly, the men and the women opted for *he* in similar proportions; around 11-12% (Table 6). The men and the 'other' category actually opted for the gender-neutral pronoun more (note though, that this is most notable for the 'other' category) for the masculine images than for the feminine images. The women and nonbinary individuals, however, had higher *they* response rates for the feminine images.

It is strikingly clear from Figure 4 that the nonbinary individuals were the gender group who responded with the highest relative frequency of *they* to all three image types, with only around 10pp more responses for the nonbinary/unknown images than for the feminine and masculine images (54 tokens (96%) for nonbinary/unknown images vs. 97 tokens (87%) for masculine images; Table 6).

Individuals of 'other' genders applied singular *they* only 4pp more for the nonbinary/unknown images than for the masculine images (9 tokens (75%) for

nonbinary/unknown images vs. 17 tokens (71%) for masculine images; Table 6) yet performed most differently of all genders across the feminine and masculine images. They were the group with the biggest difference in *they* selections for masculine and feminine images; 13pp (17 tokens (71%) for the masculine images vs. 14 tokens (58%) for the feminine images) whilst the other groups only differed by a maximum of 2.5pp (Table 6).

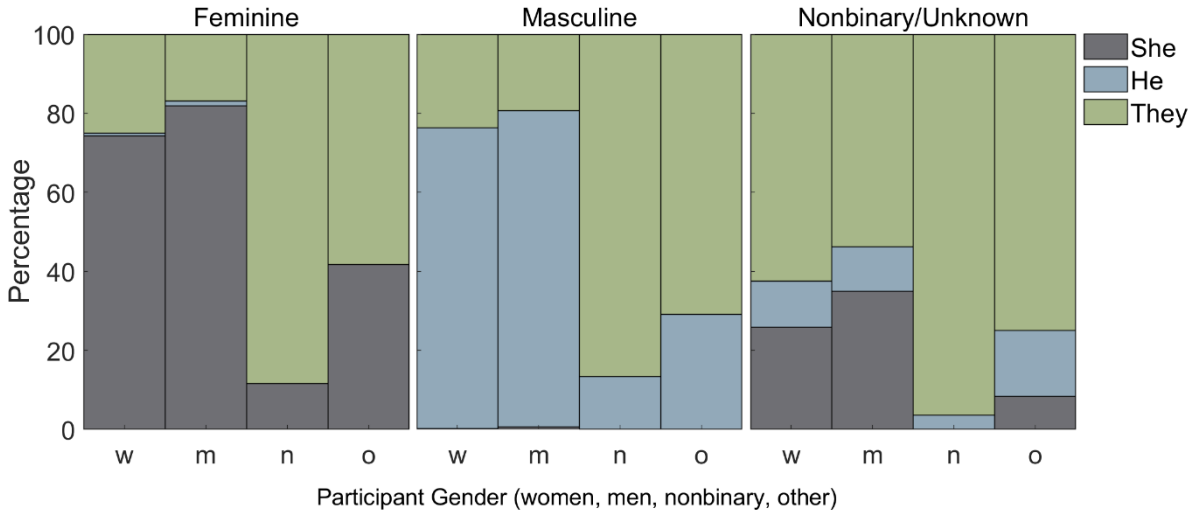

Figure 4 Distribution of responses by participant gender across image type (feminine, masculine, nonbinary/unknown)

Participant Gender	Pronoun Selected								
	Feminine			Masculine			Nonbinary/Unknown		
	She	He	They	She	He	They	She	He	They
Women	374 (74)	3 (1)	126 (25)	1 (0)	383 (76)	119 (24)	64 (26)	29 (12)	155 (62)
Men	131 (82)	2 (1)	27 (17)	1 (1)	128 (80)	31 (19)	28 (35)	9 (11)	43 (54)
Nonbinary	13 (12)	0 (0)	99 (88)	0 (0)	15 (13)	97 (87)	0 (0)	2 (4)	54 (96)
Other	10 (42)	0 (0)	14 (58)	0 (0)	7 (29)	17 (71)	1 (8)	2 (17)	9 (75)

Table 6 Distribution of responses by participant gender for each image type (relative frequencies to two significant figures in parentheses)

5.5 Gender and L1 across image type

This study aims to explore the interaction of participant gender and L1 across image type in affecting the distribution of pronoun responses. Thus, this section examines the interaction between participant gender and L1 on pronoun selection for image type. Presented in the coming three sections are stacked bar graphs showing the relative frequencies of pronoun responses by each participant gender within each L1 across image type. As before, sections and figures are also accompanied by a table presenting the raw tokens of pronoun choice adjacent to the relative frequencies in parentheses.

5.5.1 Feminine Images

Figure 5 presents the relative frequencies of pronoun selection by each gender category in each L1 for the feminine-aligned images. From this figure, it can be seen that Spanish L1 participants of all genders used singular *they* more than their English L1 counterparts to refer to the individuals within the feminine-aligned images. The nonbinary gender category demonstrated the biggest difference in *they* responses across L1s for the feminine images. There is a 23pp difference (36 tokens (75%) by English L1 nonbinary individuals vs. 63 tokens (98%) by Spanish L1 nonbinary individuals; Table 7) with more *they* responses by individuals whose L1 is Spanish, or who learned Spanish and English simultaneously. The women showed the most consistency of all gender categories of singular *they* application across both languages; Spanish L1 women opted for *they* for the feminine-aligned images just 8pp more than L1 English women (70 tokens (29%) by Spanish L1 women vs. 56 tokens (21%) by English L1 women). There was a 17pp difference in singular *they* responses between L1 Spanish men and L1 English men indeed, with more selections made by Spanish L1 men (Table 7). However, participant gender was only revealed as a statistically significant predictor in singular *they* use for the feminine-aligned images when nonbinary individuals were compared to women (β= 7.39, SE= 1.25, z(799)= 5.94, p= <0.001; Table 8). Interestingly, L1 appears to be a statistically significant predictor in singular *they* application for feminine images (β= 1.81, SE= 0.75, z(799)= 2.42, p= <0.05; Table 8) where it was not when all image types were considered (Table 4).

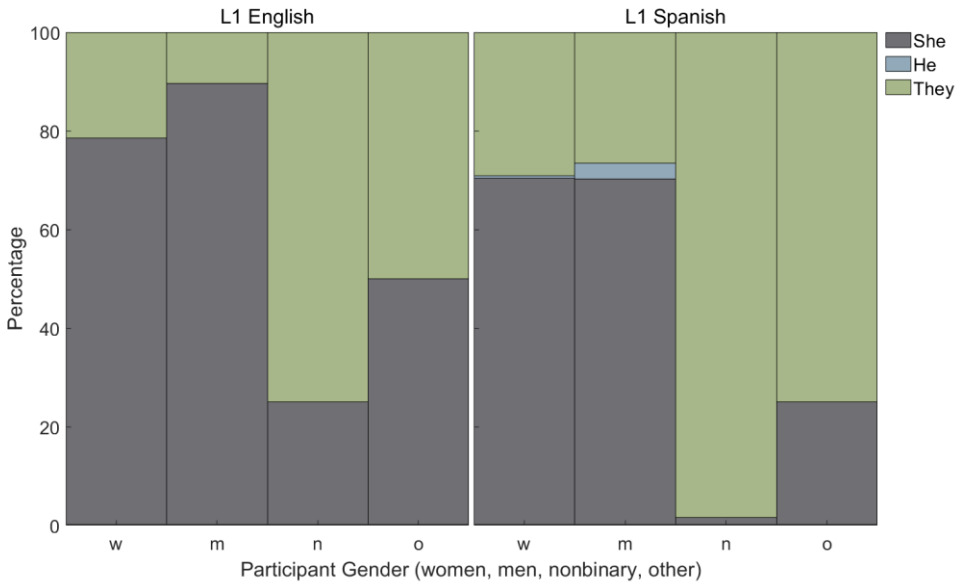

Figure 5 Distribution of responses by participant gender and L1 for feminine-aligned images

Participant gender	Pronoun Selected by Participant L1					
	L1 English			L1 Spanish		
	She	He	They	She	He	They
Women	205 (78)	2 (1)	56 (21)	169 (71)	1 (0)	70 (29)
Men	86 (90)	0 (0)	10 (10)	45 (70)	2 (3)	17 (27)
Nonbinary	12 (25)	0 (0)	36 (75)	1 (2)	0 (0)	63 (98)
Other	4 (50)	0 (0)	4 (50)	6 (38)	0 (0)	10 (62)

Table 7 Distribution of responses by participant gender and L1 for feminine-aligned images (relative frequencies to two significant figures in parentheses)

Predictor Level	Estimate	Std. Error	Z-Value	Pr(>|z|)
Men (baseline)				
other	4.80	2.22	2.161	0.03
women	1.11	0.96	1.16	0.25
Intercept	-4.62	1.19	-3.89	0.0001
Women (baseline)				
men	-1.11	0.96	-1.16	0.25
nonbinary	7.39	1.25	5.94	<0.001**
other	3.69	2.08	1.77	0.08
Intercept	-3.51	0.91	-3.84	0.0001
Nonbinary (baseline)				
other	-3.70	2.24	-1.65	0.10
Intercept	3.88	1.27	3.06	0.002
English L1 (baseline)				
Spanish L1	1.81	0.75	2.42	<0.05**

Table 8 Regression analysis results for predictor significance on pronoun selection for feminine-aligned images (represents statistical significance)**

5.5.2 Masculine Images

When Figures 5 and 6 (and Tables 7 and 9) are considered together, gender categories appear to behave similarly across the feminine and masculine images. Figure 6 shows that, again, all L1 Spanish gender groups used singular *they* more than their L1 English equivalents to refer to the individuals within the masculine-aligned images. Again, nonbinary individuals demonstrated the most difference in singular *they* responses across the L1s; more Spanish L1 nonbinary individuals opted for the gender-neutral pronoun than did English nonbinary participants by 27pp (Table 9). Across both feminine and masculine images, only the men and nonbinary individuals differed in singular *they* application between L1s, the women and the 'other' category appeared to show the exact same differences; 8pp for women and 12pp for the 'other' category (Table 9). Where participant gender is concerned, the same predictor levels are revealed as statistically significant for the masculine-aligned images as for the feminine-aligned images; nonbinary individuals favour *they* usage significantly when compared to women (β= 8.80, SE= 1.59, z(799)= 5.53, p= <0.001; Table 10). Unlike the feminine-aligned

images, the masculine-aligned images do not reveal L1 to be a significant predictor in singular *they* selection (β= 1.93, SE= 0.99, z(799)= 1.954, p= 0.0507; Table 10).

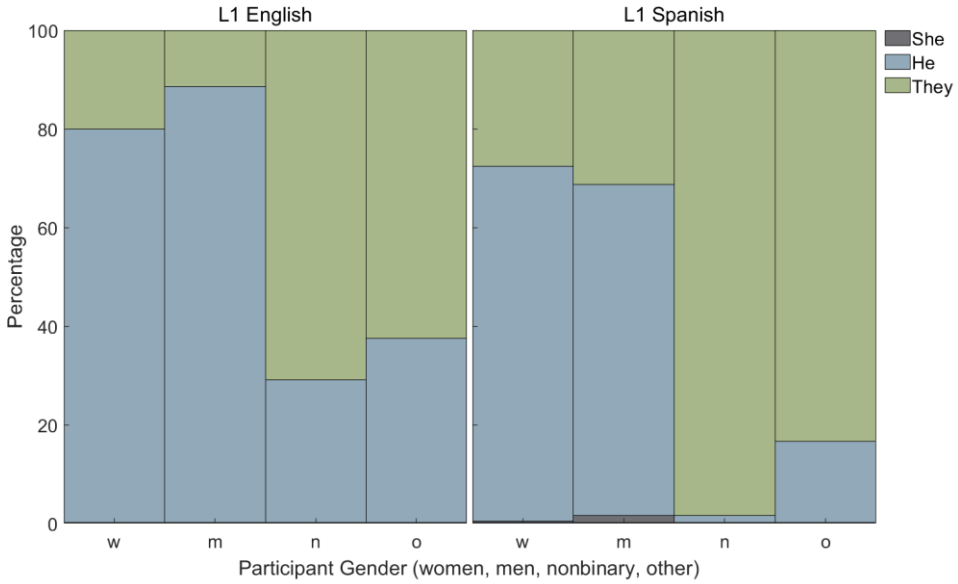

Figure 6 Distribution of responses by participant gender and L1 for masculine-aligned images

Participant gender	Pronoun Selected by Participant L1					
	L1 English			L1 Spanish		
	She	He	They	She	He	They
Women	0 (0)	211 (80)	53 (20)	1 (0)	172 (72)	66 (28)
Men	0 (0)	85 (89)	11 (11)	1 (2)	43 (67)	20 (31)
Nonbinary	0 (0)	14 (29)	34 (71)	0 (0)	1 (2)	63 (98)
Other	0 (0)	3 (37)	5 (63)	0 (0)	4 (25)	12 (75)

Table 9 Distribution of results by participant gender and L1 for masculine-aligned images (relative frequencies to two significant figures in parentheses)

Predictor Level	Estimate	Std. Error	Z-Value	Pr(>|z|)
Men (baseline)				
other	6.80	3.02	2.255	0.024
women	1.06	1.30	0.814	0.42
Intercept	-5.32	1.50	-3.54	<0.001
Women (baseline)				
men	-1.06	1.30	-0.814	0.4156
nonbinary	8.80	1.59	5.532	<0.001**
other	5.74	2.79	2.054	0.04
Intercept	-4.26	1.07	-3.99	<0.001
Nonbinary (baseline)				
other	-3.06	2.88	-1.061	0.29
Intercept	4.54	1.49	3.04	0.002
English L1 (baseline)				
Spanish L1	1.93	0.99	1.954	0.0507

Table 10 Regression analysis results for predictor significance on pronoun selection for masculine-aligned images (represents statistical significance)**

5.5.3 Nonbinary Images

The first thing that it strikingly clear in Figure 7, is the fact that for the nonbinary/unknown images, the Spanish L1 nonbinary participants opted for singular *they* 100% of the time, as did the English L1 'other' category, though it must be noted that the robustness of this finding is not considered equal to that for the nonbinary individuals as the subsample size is 11 participants smaller. L1 English nonbinary individuals opted for singular *they* around 8pp less than their L1 Spanish counterparts (Table 11). It is only in the results for the nonbinary/unknown images where we see L1 English gender categories use singular *they* more than their L1 Spanish counterparts. L1 English 'other' individuals and women use singular *they* more than their Spanish L1 equivalents. Note though, that this is most notable for the 'other' category (37pp difference for 'other' vs. 7pp difference for women; Table 11). Women, men and nonbinary individuals appeared to be fairly consistent across languages to similar extents, showing differences in singular *they* application of 7pp (for women), 8pp (for nonbinary) and 9pp (for men). Any difference across L1s between these genders is relatively small when compared to the 37pp difference displayed by the 'other' category, albeit again, women were

the most consistent. In section 5.4, I noted that more *she* responses were made for the nonbinary/unknown images than *he* responses. However, Figure 7 reveals that L1 English men led in the use of *she* for nonbinary images of all genders across both L1s.

Generally, L1 Spanish nonbinary and 'other' individuals lead in the application of singular *they* in this context, with women following and men falling behind. Generally though, L1 Spanish women and men used singular *they* more than L1 English women and men. As with the other image types, participant gender is revealed as a statistically significant predictor for nonbinary/unknown gender images when nonbinary individuals are compared to women in their application of singular *they* (β= 4.34, SE= 1.17, z(396)= 3.72, p= <0.001; Table 12). Again, L1 is not considered statistically significant (β= -0.02, SE= 0.59, z(396)= -0.04, p= 0.97; Table 12).

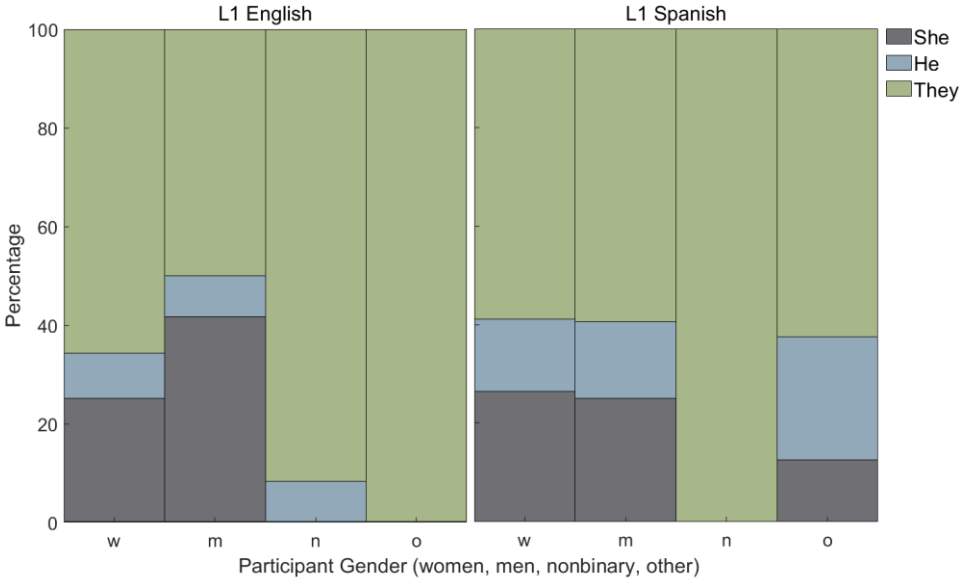

Figure 7 Distribution of responses by participant gender and L1 for nonbinary/unknown-aligned images

Participant gender	Pronoun Selected by Participant L1					
	L1 English			L1 Spanish		
	She	He	They	She	He	They
Women	33 (25)	12 (9)	86 (66)	31 (26)	17 (15)	69 (59)
Men	20 (42)	4 (8)	24 (50)	8 (25)	5 (16)	19 (59)
Nonbinary	0 (0)	2 (8)	22 (92)	0 (0)	0 (0)	32 (100)
Other	0 (0)	0 (0)	4 (100)	1 (12)	2 (25)	5 (63)

Table 11 Distribution of results by participant gender and L1 for nonbinary/unknown-aligned images (relative frequencies to two significant figures in parentheses)

Predictor Level	Estimate	Std. Error	Z-Value	Pr(>|z|)
Men (baseline)				
other	2.17	1.92	1.13	0.26
women	0.69	0.72	0.97	0.34
Intercept	0.32	0.83	0.38	0.70
Women (baseline)				
men	-0.70	0.72	-0.97	0.33
nonbinary	4.34	1.17	3.72	<0.001**
other	1.48	1.84	0.80	0.42
Intercept	1.00	0.68	1.47	0.14
Nonbinary (baseline)				
other	-2.86	2.08	-1.38	0.17
Intercept	-5.03	1.29	4.14	<0.001
English L1 (baseline)				
Spanish L1	-0.02	0.59	-0.04	0.97

Table 12 Regression analysis results for predictor significance on pronoun selection for nonbinary/unknown-aligned images (represents statistical significance)**

Figure 8 below illustrates the overwhelming consistency to which the L1 Spanish nonbinary individuals applied singular *they* across all image genders (SE= 0.43; Table 13), this regularity cannot be seen to the same extent for the English L1 nonbinary participants and in fact, any other gender group across both L1s. The group which demonstrated the least consistency was

English L1 ‘other’ individuals (SE=12.27; Table 13), closely followed by English L1 women (SE=12.22; Table 13).

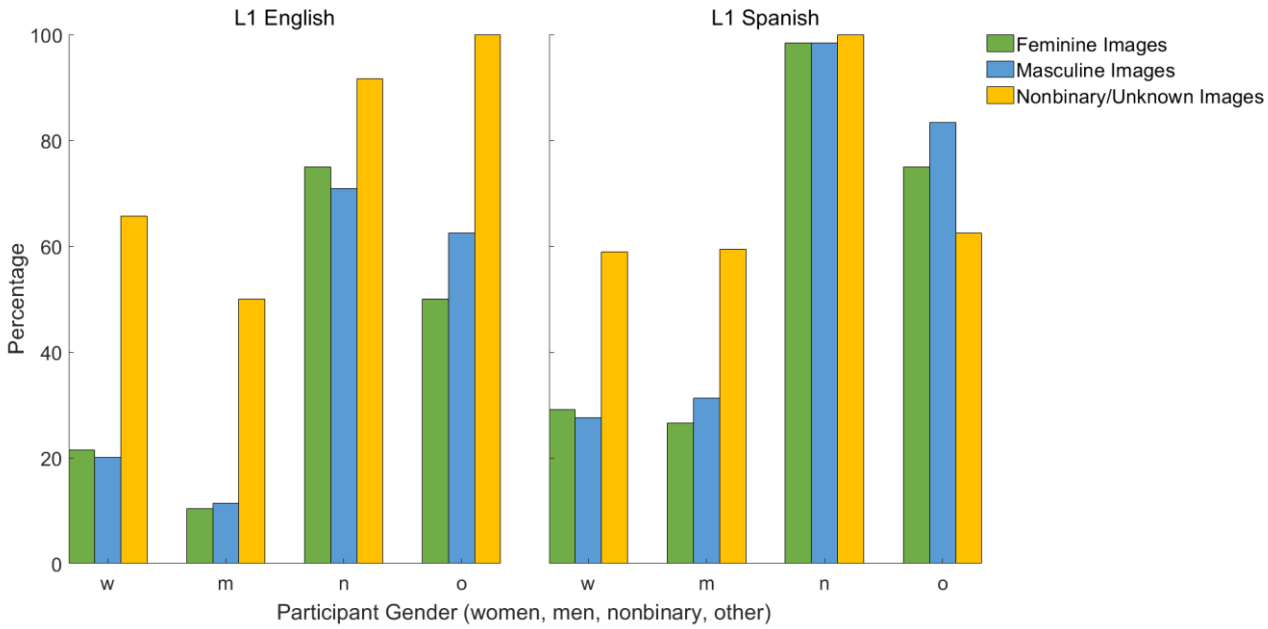

Figure 8 Relative frequencies of singular *they* selection by each gender and L1 for all image types

	L1 English				L1 Spanish			
Participant Gender	Women	Men	Nonbinary	Other	Women	Men	Nonbinary	Other
Std. Error	12.22	10.63	5.20	12.27	8.33	8.37	0.43	4.94

Table 13 Standard errors of singular *they* selection for all image types

6 Discussion

This section aims to discuss the possible explanations for the patterns that we see in the data discussed above. The discussion focusses on the effects of gender and L1 in the application of singular *they*. Also discussed is the effect of stimuli type on pronoun selection.

6.1 Gender

On considering the findings in previous literature that transgender and nonbinary individuals lead in the use and acceptance of singular *they* (Conrod 2019), I hypothesized that similar findings would come of the data studied here, the results were consistent with this hypothesis and nonbinary individuals used singular *they* the most of all gender categories. In section 5.2 above, it was reported that participant gender appeared to influence pronoun choice to a much higher degree than participant L1. This section explores the role of gender in pronoun choice.

Based on the results discussed in section 5.1, it is clear that singular *they* can be considered an established part of the grammar of individuals with nonbinary and 'other' identities, these findings mirror those found by Conrod (2019). As previously mentioned, it has been found that singular *they* is more likely to be applied with specific, definite antecedents by some communities of practice more than others (Conrod 2019; Ackerman 2020). Eckert and McConnell-Ginet (2013: 82) also note that transgender and nonbinary people are more likely to endeavour to use gender-neutral pronouns to refer to others than people of binary genders. Communities of practice are defined as 'people who come together around mutual engagement in some endeavour. Ways of doing things, ways of talking, beliefs, values, power relations' (Eckert and McConnell-Ginet 1995: 8). Eckert and McConnel-Ginet (1995) highlight the fact that communities of practice are like networks, rather than populations determined by location, and that the specific language used by these communities serve their engagement as members of the community of practice rather than of separate individuals. The membership of a marginalized minority community likely constructs a sense of social motivation to support other members. This mutual social motivation among nonbinary individuals to recognise and honour the gender identities of others perhaps guided them to respond with singular *they* to the large extents that they did.

The overwhelming proportions to which the nonbinary individuals responded with singular *they* is likely rooted in the relatability and empathy which nonbinary people can identify with regarding the idea of being misgendered; as aforementioned, misgendering is a common occurrence for transgender and nonbinary individuals (McLemore 2015). Consequently, these individuals may feel a greater incentive to honour others' genders and so, apply singular *they*

much more exhaustively than the binary gender groups who perhaps cannot relate in the same ways. Furthermore, in a qualitative, psychoanalytically informed study that aimed to research the psychological realities of transgender and nonbinary individuals, participants reported having others use correct, non-misgendering language when referring to them as a 'hugely validating experience' (Losty and O'Connor 2018: 50), reinforcing this sense of social motivation to use the correct language when referring to others.

It has been recognised in this discussion that the women applied singular *they* to a greater extent than the men, interesting though, is the fact that this difference can only be seen within the English L1 category; the Spanish L1 women and men presented similar proportions of singular *they* application (Figure 3).

One interpretation of this is rooted in Politeness Theory (Brown and Levinson 1987). In sociolinguistics, Politeness Theory is an interactional framework that aims to account for the ways in which speakers use speech acts to support and construct social relationships. This dissertation refers to the branch of Politeness Theory where interlocutors use speech acts to either preserve the 'face' of their interlocutor, or harm it (Goffman 1967). It is frequently recognized in work on language and gender that women and men utilise language in very contrasting ways. Eckert and McConnell-Ginet report this:

> *'[a] recurring theme in work on language and gender is that women and girls avoid direct conflict and specialize in being nice. They orient towards empathy and intimacy, with care for others a top priority. They are cooperative and polite. Men and boys, in contrast, are said to create hierarchies and compete in high position. They focus on individual autonomy. They are competitive and straightforward, valuing getting things done over making others feel good. Or so a familiar story goes'.* (2013: 119)

Though it is recognised that the extract above is a significant oversimplification of the work on language and gender, it clearly demonstrates the ways in which men and women differ in their use of language, and although there exists a rich plethora of literature on each of the concepts and ideas stated above, for the purpose of this discussion, it suffices to consider that

men and women use language to achieve different goals in conversation and that generally, politeness is correlated with women over men (Mills 2003 a.o.).

The motivation to honour and recognise someone's gender is embodied in the inclination that people feel to be polite to others. Thus, this may be more rooted in women than in men in the same way that other, more supposedly 'polite' behaviours tend to be (so as the research goes). This could contribute to the motivation to use singular *they* for referents whose gender is unknown, as in this study. Conrod (2018) employed Politeness Theory to explain patterns in misgendering transgender referents and attitudes towards transgender identities. They proposed two constraints for preserving a referent's face when guessing a referent's gender; *do not fail to attribute a person's gender to them* and, *do not assert an incorrect gender for a person*. Perhaps women feel more inclined than men to preserve a referent's face and not misgender someone and so, apply singular *they* more than the men in this context.

Interesting though, is the fact that a difference in singular *they* use between men and women cannot be seen as visibly for L1 Spanish participants as can be seen for L1 English participants (Figure 3). Perhaps this could be explained by a difference in the socialization of men and women between cultures, such an analysis is however, beyond the scope of this dissertation[4].

Another aspect of social motivation to respond with singular *they* could be if the participants have transgender or nonbinary individuals as friends, family or members of their social networks who use singular *they* as their pronoun. This may mean that these participants are exposed to Direct Nonbinary Language (López 2002), that is, the language that forthrightly includes nonbinary individuals frequently and as a result, have learned to utilise it, and may now apply it in wider contexts than the individuals for which they learned it. For example, Ackerman *et al.* (2018) and Ackerman (2017) found a correlation between people with exposure to nonbinary identities and gender diversity and increased acceptance of singular *they* with singular specific antecedents, namely, typically gendered nouns and names like *Jacob* and *Chloe*. Furthermore, Konnelly and Cowper (2020) suggest that individuals who have greater familiarity with gender diversity, 'skip a stage' in the acquisition of singular *they* and become advanced in its use faster than others as a consequence of this exposure.

[4] For a discussion on Politeness Theory and face work across cultures, see for example Hernández-Flores (1999).

Although, this notion has been challenged in singular *they*'s processing cost. Prasad and Morris (2020) hypothesized, based on Ackerman's (2019) framework on the cognitive and linguistic representations of gender, that nonbinary individuals, and individuals who interact with other nonbinary individuals, would be more likely to process singular *they* with no processing cost. However, their findings did not support their hypothesis; individuals that frequently had interactions with individuals of nonbinary identities, could not dissociate the gender from antecedents with a supposed unambiguous gender like *Mary.* Processing cost does not correlate with production and application so a processing cost may not lead to a lower production of singular *they*, especially when conscious efforts can be made to use it, such as is likely in the case of individuals who interact with nonbinary individuals, as was hypothesized by these authors initially.

Conrod observed a direct association in metalinguistic data between singular *they* usage and transgender/nonbinary/queer identities, leading them to the idea that singular *they* production and acceptance is perhaps lead by 'individuals who have made an effort to carve out a space for identity outside binary gender' (2019: 127), highlighting the importance of social motivation in the application and acceptance of singular *they*. Furthermore, in their metalinguistic data, several comments made in support of singular *they* specifically made reference to their support being motivated by having LGBTQ+ individuals within their social networks. Thus, people that have transgender or nonbinary individuals within their social circles may be the individuals who are more socially motivated to introduce singular *they* as an integral part of their grammar.

Though there is a multitude of reasons as to why society in general should adopt singular *they*, there are limiting factors to its large-scale adoption. One of these limiting factors is the anxiety that people may feel in asking people what their pronouns are, because many people are led to the belief that this would be an offensive question to ask (Zimman 2017) as it suggests uncertainty of someone's ambiguous gender or sex. This anxiety may hold people back in the adoption of singular *they* as it means they do not ask people what their pronouns are, so do not get the opportunity to utilise gender-neutral pronouns and consequently, default to the binary *he* or *she*, which as previously mentioned, is psychologically harmful if these pronouns misgender someone (McLemore 2015). Women perhaps feel more comfortable asking such a

question and regard this encounter as less anxiety-provoking than men due to the difference in socialization of women and men in society. This is another potential explanation as to why more women applied singular *they* in this context than men.

6.2 L1

Unlike some other languages (like Finnish, for example), English requires its speakers to assign a gender to any referent spoken about in the third person. Likewise, Spanish also requires its speakers to attribute a gender to any referent spoken about in the third person. But unlike English, the Spanish language has grammatical gender i.e. the gender agreement system that gendered noun classes form. This grammatical gender compels speakers of Spanish to agree all adjectives, determiners, passive participles, and pronouns to the class/gender assigned to the noun to which they refer. The aim for this paper was to research singular *they* use in English L2 speakers who have Spanish as an L1 and observe how this compares to that of English L1 use. It was posited that due to language transfer, Spanish L1 speakers would use singular *they* less than English L1 speakers and make more use of binary pronouns as singular *they* (and other gender-neutral alternatives) are not yet taught in formal teaching environments (where many English L2 speakers learn English), thus leading to less exposure and therefore, less use. What was found in the results was not consistent with this hypothesis; surprisingly, Spanish L1 participants used singular *they* more than the English L1 participants.

The findings here suggest that English L2 users perhaps learn a novel pronominal paradigm more easily than native L1 users of English. Because for L1 speakers of English, learning to use singular *they* with singular and specific antecedents, requires the pronoun system to be restructured (Konnelly and Cowper 2020) and the long-established features that have likely been consistently applied since L1 acquisition of the features at a young age need to be cognitively reanalysed and reassembled (Lardiere 2008; Konnelly and Cowper 2020).

A calculation of the proportion of singular *they* responses which were submitted by individuals that learned English in school (i.e. in a formal classroom learning environment) showed that 34% of the singular *they* responses were submitted by individuals that learned English in school (results not shown above, see Appendix F). This suggests that the adoption of singular *they* in this context is not restricted to individuals who learned English in more

casual, uninstructed environments and that these individuals have perhaps consciously adopted singular *they* to carve out a place within language and society for individuals that do not fall within the gender binary.

Previous research has found that speakers learn grammatical gender more accurately in an L2 when their L1 also has grammatical gender (Sabourin *et al.* 2006), whilst other research has found that the comprehension and production of gender in an L2 is not affected by the grammatical gender of the L1 (White *et al.* 2004). For the results found here regarding the acquisition of a novel pronoun, the latter finding is supported, as the Spanish L1 participants showed success in the acquisition of singular *they,* despite having gender-assigning third person pronouns in their L1. With the findings of previous research considered alongside the findings here, further research into the differences of singular *they* application between speakers of languages with different gender systems like Spanish (grammatical), English (notional) and Finnish (genderless) could provide interesting insight into language transfer within and across pronominal paradigms.

One potential key influence in the application of singular *they* by the Spanish L1 participants is the use of the gender-neutral pronoun *elle.* If Spanish L1 participants actively use the pronoun *elle*, it is perhaps the case that these speakers have singular *they* as a direct translation from *elle,* and so, apply singular *they* in the contexts for which they would apply *elle.* The adoption of singular *they* may not be as straight forward for those speakers of Spanish who are not familiar with or do not use *elle* as the adoption and use of singular *they* may seem somewhat more novel if they have not already adopted a gender-neutral pronoun in their L1. Moreover, the use of singular *they* by an L2 English speaker is perhaps indicative of an advanced level of acquisition of English as the use of singular *they* requires adjustments to the 'standard' grammar learned, namely, the use of the plural feature on verbs e.g. *they are* rather than *they is* with a singular antecedent. Likewise, Direct Nonbinary Language (López 2002) in Spanish involves the affixation of the gender-neutral *-e* on other gender-assigning particles of a sentence, which of course also requires adjustment of the language. Thus, the use of *elle* and additionally, other gender-neutral language approaches (like *-e*) may aid English L2 Spanish speakers in the adoption of singular *they* as they may be experienced in adjusting language and reassembling features (Lardiere 2008).

A further explanation as to why Spanish L1 participants used singular *they* more than English L1 participants could be rooted in the difference in the progression of gender rights between each of the cultures and countries. Perhaps the Spanish culture has developed and advanced with regard to gender rights in ways that the UK has not. A discussion on this is however, beyond the scope of this project.

6.3 Stimuli Type

So far in this discussion, we have explored the effects (both separate and combined) of gender and L1 on the application of singular *they.* Now, the focus turns to the effect of stimuli type on singular *they* application.

It was acknowledged in section 5.4 that L1 Spanish nonbinary individuals demonstrated great consistency in their application of singular *they* regardless of image type. For this group, 100% of responses to nonbinary/unknown images were singular *they* (Figure 4) and 98% of responses to both masculine and feminine images were singular *they* (Figure 4). From this, it could be inferred that these individuals have non-standard ways of perceiving gender and that they cognitively dissociate gender expression and gender roles as being typical of any given gender identity. For example, perhaps they do not associate long hair with a feminine gender identity and short hair or a muscular physique with a masculine gender identity. This idea was explored by Prasad and Morris (2020); they posited that individuals who are most likely to have non-standard ways of perceiving gender are nonbinary individuals and individuals who frequently interact with nonbinary individuals. They concluded that neither being nonbinary nor interacting with other nonbinary individuals resulted in the ability to cognitively dissociate the gender associated with a referent of unambiguous gender (e.g. *Mary*) as when such antecedents were coindexed with singular *they,* there was still a processing cost. The results found here contribute to Prasad and Morris' (2020) findings because in this context, when the gender identity of the referent is unknown, nonbinary individuals appear to perceive gender differently to the other gender groups and apply singular *they* more radically than other genders regardless of image type/gender. Additionally, perhaps the representation of antecedents in such research models (orthographical representations like *Mary* or pictorial representations like the stimuli in this study) has an effect on the processing of singular *they* and its application.

This brings forward potential research into the effect of antecedent representation in the processing and application of singular *they*; maybe one representation gives rise to more gender biases than the other as perhaps the stereotypical physical traits of a gender (i.e. being muscly) do not cognitively assign a gender in the same way that an orthographic representation does. Such research could reveal varying levels of gender bias in antecedent representation.

Another observation that was made across stimuli type was that more *she* responses were made for the nonbinary/unknown images than *he* responses (93 tokens (24%) for *she* vs. 42 tokens (11%) for *he*; Table 11). The fact that there were more *she* responses to the images of individuals of nonbinary/unknown gender identities indicates that more participants perceived the genders of these individuals as feminine rather than masculine. This could suggest that, perhaps masculine gender roles are further ingrained and more deep-rooted in society than feminine gender roles. As men are under pressure to display their masculine gender identities through appearance (Hunt *et al.* 2013), participants may have used *she* rather than *he* because there are stronger expectations that individuals of masculine gender identities must exhibit and display a hyper-masculine appearance, than the expectations that people of feminine gender identities must express their gender in a hyper-feminine way. To illustrate, the absence of stereotypically masculine traits in the images of individuals of nonbinary/unknown gender identities such as, a broad muscular physique, a beard, short hair, or a defined jaw, may have prevailed in the participants' pronoun selection for these images rather than the absence of stereotypically feminine features (such as long hair, for example).

Another reason for the inflated *she* responses for the nonbinary/unknown images could be the progress and advancement that society has made regarding stereotypical feminine gender roles. Perhaps the resistance of acceptance of feminine gender roles in recent years amongst females and women within this community of practice have eroded the once firmly established 'expected' and 'appropriate' behaviours of 'being a woman'. For example, the shift in women's occupations and roles outside of the home and into professions typically filled be men (Cortes and Pan 2017), or more recently, the increasing visibility of females and women in strength sports (Lowery 2019). This then, is perhaps indicative to some degree of the fact that conceptual gender, gender roles and the way that people perceive gender expression is changing.

In section 5.5.3, it was noted that L1 English men submitted the most *she* responses of all genders across both L1s for nonbinary/unknown-aligned images. This is perhaps suggestive of a sense of threatened masculinity[5] that men perhaps feel as a result of the 'identity crisis' (that is, the idea that men feel a need to publicly display their masculine identities, perhaps by being muscular, in order to be clearly differentiated from women; see, for example, Mills and D'alfonso (2007)) as the men in this context may feel that other individuals that do not display masculinity as overtly, (such as is the case with the individuals in the nonbinary/unknown-aligned images) do not align with their own perception of expression of membership to a masculine gender category. This would explain the higher response rates of the pronoun *she* for these images by the men.

What this explanation neglects to explain in the results presented here though, is the fact that L1 Spanish men did not seem to present the same inflated *she* response rates when compared to the Spanish L1 women. In fact, L1 Spanish men actually responded with less *she* responses than the L1 Spanish women (though only by 1pp; Table 11). To explain this, it is suggested that such a difference can be seen in the results here perhaps due to a difference in socialization of men between cultures (as suggested in section 6.1 too), such an analysis is however, beyond the scope of this study.

7 Limitations to the Study

There are three main limitations to the present study that will be explored in this section. Firstly, participants were not asked if they are transgender, meaning that there could be transgender men and women within the 'women' and 'men' gender categories. This could have inflated singular *they* response rates as transgender/nonbinary individuals have been known to use singular *they* more than individuals of other gender identities (Conrod 2019). It could also be the case that transgender people within this study use a gender-neutral pronoun themselves, in which case, they may be more likely to apply singular *they* for others.

Secondly, there were only three people grouped into the 'other' category. This was because all other responses to the free-form gender question aligned accurately with either 'women',

[5] For work on the 'Threatened Masculinity' theory, see Mills and D'alfonso (2007)

'men' or 'nonbinary'. Consequently, this gender category is rather heterogenous in nature and so, had there been more individuals that could have been allocated to this group, I may have encountered very different results. As there were only three people placed in this category, the findings here that the 'other' category follow nonbinary people in the use of singular *they,* are less convincing due to the small population in this category.

Thirdly, the presence of singular *they* within the experiment may have inflated response rates as this may have revealed, to some extent, the research questions. Including singular *they* may have led some participants to respond with singular *they,* even if they do not use it in other contexts as they may have thought that it was the 'correct' way to answer, especially if they have speculated about the nature of the research questions. A free-form text response system was considered, however, will have most likely produced non-pronoun responses like 'the boy' or 'the person', which will likely have produced some fascinating results, but was not the objective of this paper.

8 Conclusion

This study has explored the application of singular *they* amongst individuals of varying gender identities (namely, women, men, nonbinary and 'other') across speakers of two languages; a language with grammatical gender (Spanish) and a language without grammatical gender (English). As predicted, it was found that nonbinary individuals lead in the use and application of singular *they* with the 'other' category and women following respectively and men trailing. I identified social motivation tied together with community of practice membership as factors at play in influencing the use of singular *they* by nonbinary individuals. The radical application of singular *they* by nonbinary individuals regardless of image type suggests that these individuals perhaps have non-standard ways of perceiving gender, as no other gender group seemed to use singular *they* to the same extent across image type. Politeness Theory was employed to explain the higher response rates of singular *they* from women over men, namely, that women may be more driven to preserve the face of a referent more so than men, and so, are more cautious when they encounter a situation where they may misgender someone.

Where all stimuli are considered, L1 Spanish participants of all genders used singular *they* more than their L1 English counter parts. This was conflicting with the proposed hypothesis that L1 English participants would apply it more than L1 Spanish participants. It was suggested that perhaps English L2 users find it easier to learn a novel pronominal paradigm than native speakers. Also considered was the use of the Spanish gender-neutral pronoun *elle* in the adoption of singular *they* and how this use would facilitate the adoption of singular *they* in L2 English. Also found was that participant gender identity was a more revealing predictor than L1 in the application of singular *they*, suggesting that gendered social structure has a stronger impact on singular *they* adoption than a speaker's native language and its grammatical gender assignment system. The results found here point toward the need to consider gender as a non-dichotomous variable in other sociolinguistic studies which explore gender-sensitive variables.

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Appendices

Appendix A: Nonbinary/Unknown Stimuli

Figure A1

Figure A2

Figure A3

Figure A4

Appendix B: Feminine Stimuli

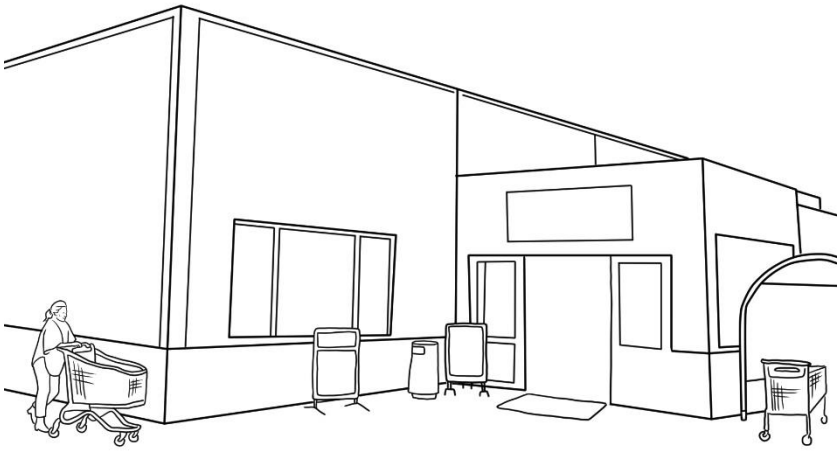


Figure B1

Figure B2

Figure B3

Figure B4

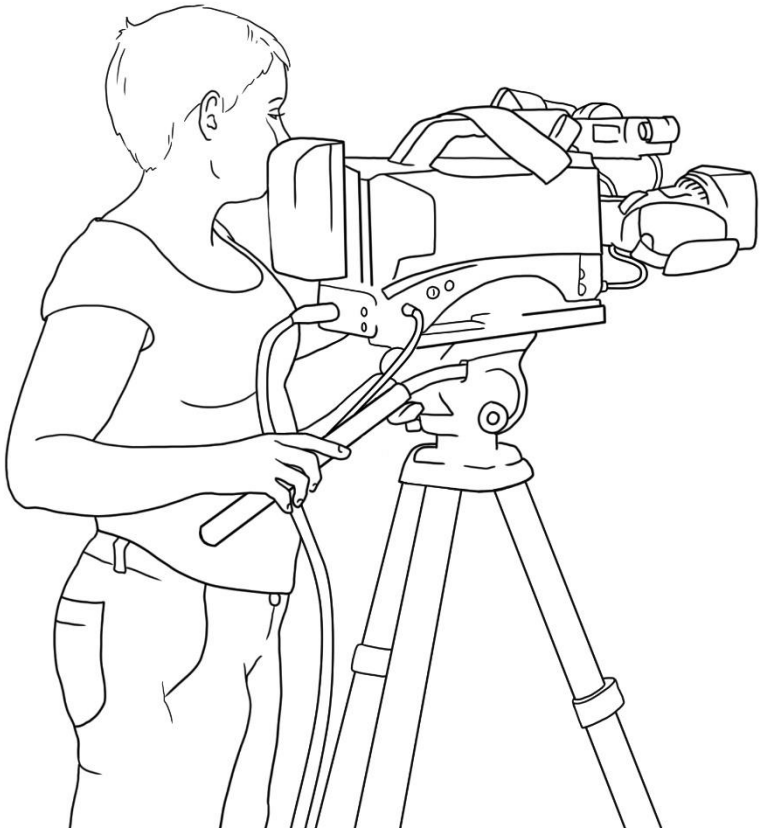


Figure B5

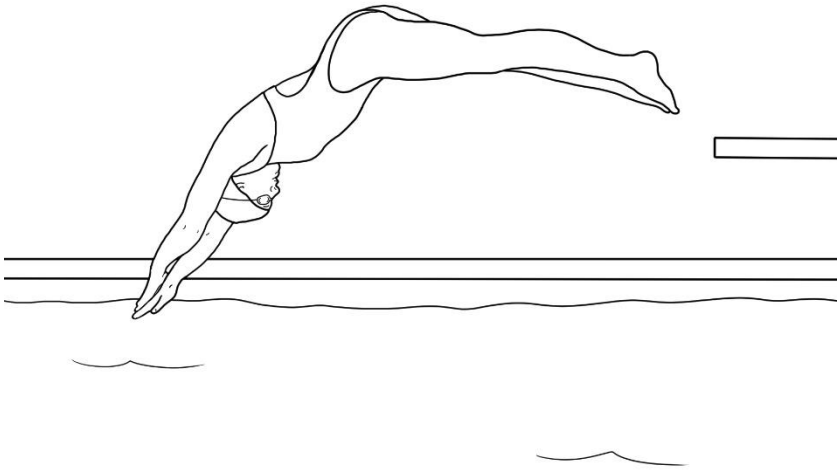


Figure B6

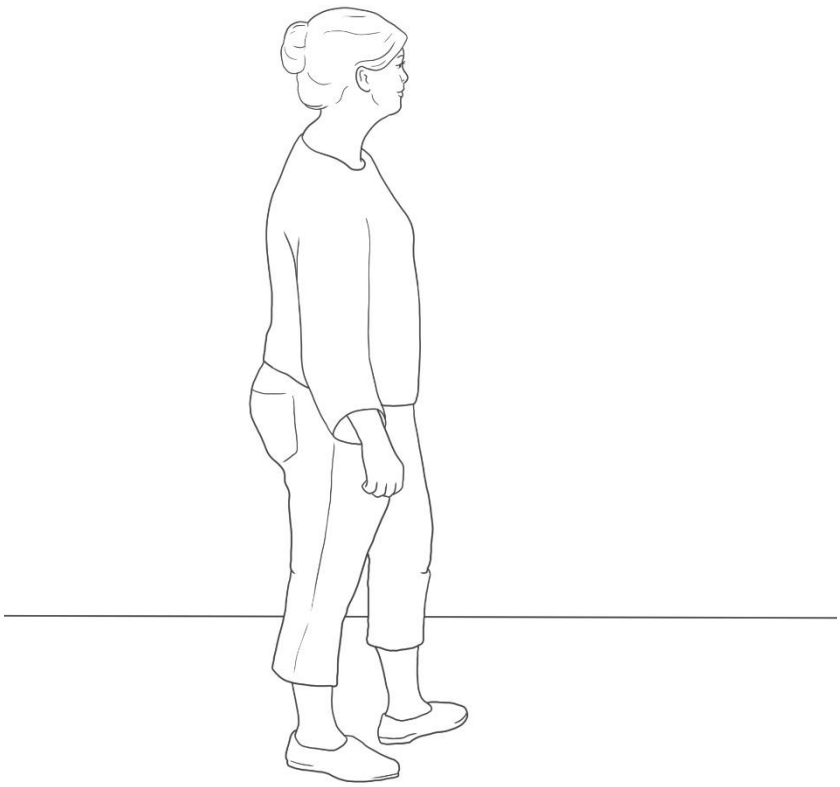


Figure B7

Figure B8

Appendix C: Masculine Stimuli

Figure C1

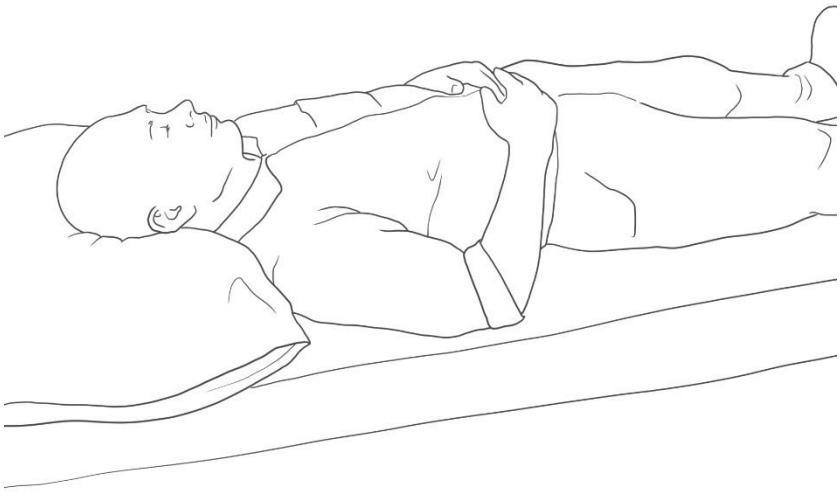


Figure C2

Figure C3

Figure C4

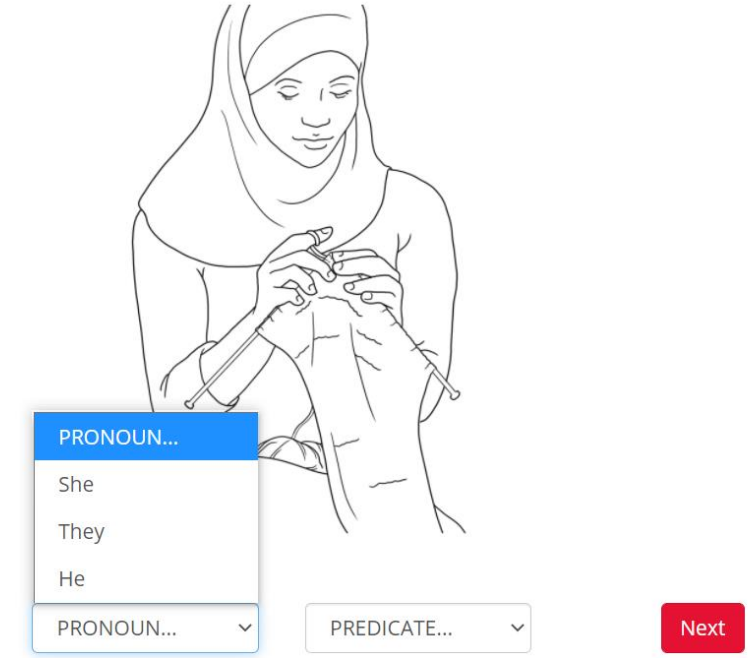
Figure C5

Figure C6

Figure C7

Figure C8

Appendix D: Example Question



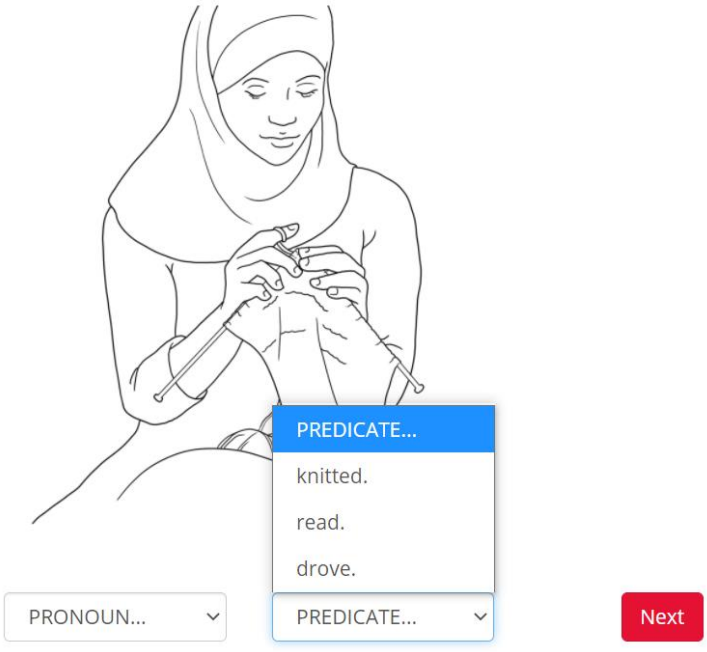


Figure D1

Appendix E: Regression analyses results

Predictor Level	***Estimate***	***Std. Error***	***Z-Value***	***Pr(>|z|)***
Men (baseline)				
other	4.491	2.0823	2.157	0.031024
women	0.7507	0.8392	0.895	0.371016
Intercept	-3.0602	0.9266	-3.302	0.000959
Nonbinary (baseline)				
men	-7.7824	1.2762	-6.098	<0.001**
other	-3.2914	2.1685	-1.518	0.1291
women	-7.0317	1.1104	-6.332	<0.001**
Intercept	4.7223	1.1593	4.073	<0.001
Women (baseline)				
other	3.7403	1.9839	1.885	0.0594
Intercept	-2.3094	0.7130	-3.239	0.0012
English L1 (baseline)				
Spanish L1	1.2949	0.6679	1.939	0.0525

Table E1 Regression analysis results for predictor significance on pronoun selection (** represents statistical significance)

Predictor Level	***Estimate***	***Std. Error***	***Z-Value***	***Pr(>|z|)***
Men (baseline)				
other	4.7989	2.2209	2.161	0.0307
women	1.1089	0.9559	1.16	0.246
Intercept	-4.6157	1.1867	-3.889	0.0001
Women (baseline)				
men	-1.109	0.956	-1.16	0.24602
nonbinary	7.3912	1.2453	5.935	<0.001**
other	3.69	2.0813	1.773	0.076237
Intercept	-3.5068	0.9133	-3.840	0.000123
Nonbinary (baseline)				
other	-3.7012	2.2397	-1.653	0.09842
Intercept	3.8845	1.2697	3.060	0.00222
English L1 (baseline)				
Spanish L1	1.8054	0.7453	2.423	<0.05**

Table E2 Regression analysis results for predictor significance on pronoun selection for feminine-aligned images (** represents statistical significance)

Predictor Level	***Estimate***	***Std. Error***	***Z-Value***	***Pr(>|z|)***
Men (baseline)				
other	6.7976	3.0151	2.255	0.024162
women	1.0604	1.3025	0.814	0.415573
Intercept	-5.3185	1.5021	-3.541	0.000399
Women (baseline)				
men	-1.0604	1.3025	-0.814	0.4156
nonbinary	8.7983	1.5904	5.532	<0.001**
other	5.7372	2.7938	2.054	0.04
Intercept	-4.2581	1.0685	-3.985	0.4156
Nonbinary (baseline)				
other	-3.0611	2.8848	-1.061	0.28865
Intercept	4.5402	1.4915	3.044	0.00233
English L1 (baseline)				
Spanish L1	1.9284	0.9871	1.954	0.0507

Table E3 Regression analysis results for predictor significance on pronoun selection for masculine-aligned images (** represents statistical significance)

Predictor Level	***Estimate***	***Std. Error***	***Z-Value***	***Pr(>|z|)***
Men (baseline)				
other	2.16679	1.92404	1.126	0.26
women	0.69088	0.71608	0.965	0.335
Intercept	0.31816	0.82360	0.384	0.701
Women (baseline)				
men	-0.69088	0.71609	-0.965	0.334651
nonbinary	4.34047	1.16688	3.72	<0.001**
other	1.47591	1.84329	0.801	0.42331
Intercept	1.00901	0.68469	1.474	0.140568
Nonbinary (baseline)				
other	-2.86466	2.07913	-1.378	0.1683
Intercept	5.34953	1.28982	4.147	<0.001
English L1 (baseline)				
Spanish L1	-0.02251	0.59217	-0.038	0.9697

Table E4 Regression analysis results for predictor significance on pronoun selection for nonbinary/unknown-aligned images (** represents statistical significance)

Appendix F: Singular *they* application by L2 English acquisition environment

Acquisition environment	N tokens	Relative frequency
School	265	33.5
Home	341	43.1
Other (clubs etc.)	185	23.4