

RESEARCH REPORT

Comprehension, acceptance and usage of nonbinary forms among Portuguese speakers



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ABSTRACT

The emergence of nonbinary (NB) forms is a recent phenomenon that is still not well understood (Freitag, 2024). Our goal is to contribute to this area of research by analyzing the perception of NB forms among native (L1) and non-native (L2) speakers of Portuguese. Participants evaluated the comprehension, acceptance, and usage of four linguistic forms: NB, binary, standard, and non-standard. The study also investigated whether the vocative position and the length of the phrase would affect the perception of NB forms. A total of 248 people from various parts of the world (e.g., Brazil, Angola, the United States) evaluated 14 sentences in an online survey. While NB forms are less understood than the other forms, they are considered more accepted and more commonly used than the non-standard form, contradicting the common belief that NB forms are rejected by speakers. The preference for NB forms over other socially stigmatized forms also suggests a possible prestige hierarchy among non-hegemonic varieties. While NB forms do not favor the vocative position, there is a significant preference for their use in shorter phrases, suggesting that this type of structure may be a linguistically favorable environment for the incorporation of NB markers into the system.

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RESUMO

O surgimento de formas não binárias (NB) é um fenômeno recente que ainda não é bem compreendido (Freitag, 2024). Nosso objetivo é contribuir para essa área de investigação analisando a percepção de formas NB entre falantes nativos (L1) e não-nativos (L2) do português. Participantes avaliaram o entendimento, a aceitação e o uso de 4 formas linguísticas: NB, binária, padrão e não padrão. Também foi investigado se a posição de vocativo e o tamanho do sintagma afetariam a percepção das formas NB. Um total de 248 pessoas de várias partes do mundo (ex., Brasil, Angola, Estados Unidos) avaliaram 14 frases em um questionário online. Enquanto as formas NB são menos entendidas que as outras formas, elas são consideradas mais aceitas e mais usadas que as não padrão, contradizendo a crença comum de que as formas NB são rejeitadas pelos falantes. O favorecimento às formas NB em comparação com outras formas socialmente estigmatizadas também indica uma possível hierarquia de prestígio dentro das variedades não-hegemônicas. Enquanto as formas NB não privilegiam a posição de vocativo, há uma preferência significativa para seu uso em sintagmas curtos, sugerindo que esse tipo de estrutura possa ser um ambiente linguístico favorável para a incorporação de marcas NB no sistema.

KEYWORDS

Nonbinary forms. Comprehension. Acceptance. Use.

PALAVRAS-CHAVE

Formas não binárias. Entendimento. Aceitação. Uso.

RESUMO PARA NÃO ESPECIALISTAS

Neste estudo, queremos saber se as pessoas entendem, aceitam e usam formas não binárias (NB) do português, como na frase: Amigues, ontem a festa foi maravilhosa. Para investigar isso, criamos um questionário online com frases que incluíam formas NB e outras formas, como a não padrão (ex., A gente somos trabalhador.). As pessoas liam as frases e marcavam 'SIM' ou 'NÃO' para indicar se entenderam, se aceitavam e se usariam cada uma delas. Também queríamos saber se as respostas mudavam quando as formas NB apareciam no vocativo em comparação com outras posições na frase. Além disso, analisamos se havia diferença entre sintagmas curtos (amigues) e sintagmas longos (amigas, amigos e amigues). Ao todo, 248 pessoas de várias partes do mundo responderam o questionário. Os

resultados mostraram que as formas NB são mais aceitas e usadas do que as não padrão, o que indica que há uma abertura maior a essas inovações do que se costuma imaginar. Não houve preferência pela posição de vocativo, mas os sintagmas curtos foram preferidos. Isso sugere que os sintagmas curtos podem ser um ambiente mais favorável para incorporar essas formas inovadoras no português.

Introduction

The use of nonbinary (NB) forms in Portuguese constitutes a linguistic strategy for self-reference or for referring to nonbinary individuals. The term *nonbinary* is an umbrella term used to describe genders beyond male and female. For example, some people identify with a gender that combines elements traditionally associated with both masculinity and femininity; others do not identify with any gender, or experience changes in gender identity over time (Advocates for Trans Equality, 2025). In practice, NB forms represent an effort to overcome the limitations of standard grammar in representing gender diversity, with the goal of including and giving visibility to individuals and groups that have historically been marginalized and excluded from Brazilian society.

In Portuguese, as in other Romance languages such as Italian, Spanish, and French, grammatical gender follows a binary system and is morphologically marked through articles, nouns, adjectives, and pronouns, typically aligned with traditional representations of masculinity and femininity (Silva & Soares, 2024). Thus, the struggles and debates in favor of NB forms in language constitute a movement that ultimately aims at social transformation, as they seek respect for and recognition of human diversity.

It is important to clarify that the definition of nonbinary, much like the understanding of sexuality and gender, is constantly evolving and subject to change and variation over time (cf. Grossi, 1998; Lattanzio; Ribeiro, 2018; Osborne, 2024; Patricio, 2025). These forms may, for example, be considered a type of “gender-neutral language” or “inclusive language.” However, we believe the notion that language can be neutral is a fallacy. From a discursive perspective, language is deeply shaped by the historical and social contexts in which it is produced, as well as by the identities, values, intentions, and ideologies of both speakers and listeners. No speech act or text is truly neutral; it always reflects and reinforces power relations, ideologies, and the cultural assumptions of its context of production (Volóchinov, 2021). In this sense, following Raquel Freitag (2024, p. 9), we maintain that “there is no such thing as neutral language.”

Moreover, we observe a certain polysemy in the label “inclusive language,” which in some cases includes NB forms, as seen in Silva and Laurentino (2023), while in others does not mention them explicitly, as in the *Manual de Comunicação da Secretaria de Comunicação Social* (2023), a manual that has been official and published by the Brazilian Federal Senate since 2012. On the other hand,

some strategies intended to promote more inclusive language (e.g., using *crianças* instead of *filhos e filhas*) do not explicitly include nonbinary individuals and therefore are not fully inclusive in practice (Osborne, p. 143, 2024). For these reasons, we define NB forms as innovative and emergent linguistic forms, that is, new structures that have emerged in response to the need for communication to more accurately represent diverse gender identities. Examples of such forms include pronouns, such as *elu*, *ile*, and the nonbinary morpheme *-e*, as in *amigue*.

Although there are various perspectives on this topic, one position is shared among scholars in the field of linguistics: scientific research is still incipient regarding the emergence and current state of awareness and use of NB forms in Brazilian Portuguese (Freitag, 2024). It is important to highlight, however, the work, especially in recent years, of linguists who have dedicated to describing NB forms in order to understand the phenomenon and shed light on possible directions and challenges in the ongoing discussions. This is the case of studies such as Schwindt (2020), who, starting from the analysis of current uses of inclusive gender, proposes a gender-neutral approach to Portuguese. According to this proposal, the adoption of *-e* as a neutral morpheme would have fewer restrictions for expansion within the subset of gendered nouns and adjectives. Another example is Fiorin (2022), who, after reviewing what grammatical gender is and how it is structured and expressed across different languages, demonstrates the complexity of creating a nonbinary language system in Portuguese, given that gender is marked not only through pronominal reference but also through gender inflection and nominal agreement.

It is also important to highlight the impact of comprehensive works dedicated to this theme, such as those by Barbosa Filho and Othero (2022), which bring together the contributions of various linguists on questions that have circulated in the media in recent years about neutral gender. Also, the already mentioned volume by Freitag (2024), in which gender views in grammatical tradition are analyzed, as well as federal, state, and municipal law projects on “neutral language” are revisited, and the role of Linguistics as a science made by people who need to take a stance in debates of great social relevance are discussed. There is also the volume by Silva and Soares (2024), which presents recent research in Portuguese, as well as in Spanish, Italian, and French, and discussions on how to implement NB forms and trans knowledge in foreign language classrooms, promoting an urgent and necessary dialogue between teachers, researchers, and linguists.

Our research aims to contribute to this field of investigation by studying the perception of NB forms among Portuguese speakers. More specifically, we seek to identify whether there is a significant difference in the comprehension, acceptance, and usage of a specific NB form, the use of the morpheme *-e*, in comparison to other linguistics forms in the Portuguese language, and whether these differences vary depending on categories such as gender, level of education, and age group. We are also interested in whether the syntactic position and the length of the phrase affect the perception of NB forms. Additionally, we investigate whether placing the feminine before the masculine in binary forms affects the responses.

The overall aim of the research is to provide the scientific community with empirical data that captures how different groups respond to NB forms, offering insights into linguistic attitudes and

behaviors. In doing so, the study seeks to challenge claims about innovative forms that are often repeated without adequate scientific grounding. We believe that knowledge and research are powerful tools for confronting challenges and promoting resistance, as they enable the construction of well-founded narratives, the deconstruction of exclusionary discourses, and the development of strategies for greater linguistic justice. With this in mind, we also hope to encourage the development of new studies that can support the formulation of language policy actions, including pedagogical applications, such as in the teaching of Portuguese.

1. Gender in Portuguese and different possibilities for gender inclusion

In Romance languages, gender is a formal category that affects the use of pronouns, noun agreement, and the entire class of nouns. However, as shown in a survey conducted by Schwindt and Collischonn (2015), only 13% of nouns are related to the “sex” of the individuals they refer to (e.g., *filho* [son] vs. *filha* [daughter]). In the remaining cases (87% of nouns), grammatical gender is merely a classificatory category, marked by arbitrary associations. For instance, the nouns *ponte* (bridge) and *flor* (flower) are considered feminine in Portuguese but masculine in Italian; in terms of grammatical gender, there is nothing that inherently makes a noun masculine or feminine.

Social gender, on the other hand, refers to individuals and their performative identities, which may or may not align with constructions of masculinity and femininity (Knisely, 2020). Therefore, for individuals who do not identify within a binary classification, it becomes difficult, if not impossible, to fully express their experiences and identities in Portuguese.

With this in mind, there are some grammatical alternatives for expressing social gender: generic masculine, duplication, non-sexist language, and NB forms. According to the proposal by Câmara Jr. (1970), in the masculine gender, the final -o in words like *aluno* (male student) and *brasileiro* (Brazilian male), is understood as a nominal thematic vowel, that is, a classificatory morpheme, while the masculine gender morpheme is $\emptyset$, a zero morpheme, unmarked, in contrast to the feminine gender morpheme -a, which is marked, as in *aluna* (female student) and *brasileira* (Brazilian female). Depending on the context, the vowel -o may be interpreted as designating a specific gender (e.g., *os alunos* when all students are male), or it may be interpreted as generic, when the group is mixed, composed of women and men.

Feminist linguists have criticized the use of the generic masculine, arguing that it actually serves to make women invisible and is, therefore, a marker of sexist language (Ergun, 2010). Empirical studies have supported the feminist position, showing that people who hear the generic masculine tend to associate it more directly with the male gender, interpreting it as gender-specific (Kaufmann & Bohner, 2014; Kolek & Scheller-Boltz, 2019).

An example of what would constitute more inclusive language is the use of *alunas e alunos* or *alunos e alunas*, for instance. In duplication, both feminine and masculine genders are made explicit. It is considered more inclusive language because it makes the feminine visible (e.g., *médicas e médicos* [female and male doctors]; *ouvi-las/los* [to hear them]; *os(as) estudantes* [the students]). However, the insertion of graphic symbols such as () or / is discouraged, as it is a way of masking women's visibility (Toledo *et al.*, 2014) and does not work in spoken language (Freitag, 2024).

Note that reversing the order of the coordinated noun phrases by placing the feminine first (e.g., *alunas e alunos*) can challenge expectations (Fernandes *et al.*, 2023) and serve as a positive action (Toledo *et al.*, 2014), as it alters the implicit hierarchy in the order of terms, functioning as a discursive strategy to question established linguistic patterns. An empirical study on European Portuguese (Matos, 2020) showed the potential of inclusive language through duplication. In this study, participants associated generic masculine nouns (e.g., *vegetarianos*, *católicos*) more with men, that is, the preferred reading was specific, not generic. Matos also observed that the male bias was reduced when nouns were presented in both feminine and masculine forms, with greater impact when the feminine term appeared on the left periphery of the noun phrase. This study offers evidence that simply placing the feminine before the masculine has the practical potential to “reduce the linguistic-cognitive invisibility of women” (p. 86). Despite this, duplication as a form of inclusion has been questioned for not including NB forms and therefore not addressing nonbinary individuals.

There are also strategies for non-sexist language that use different linguistic resources to avoid making gender markers explicit. Some of these resources include the use of epicene nouns, such as *a pessoa* (the person), *a criança* (the child), *o indivíduo* (the individual); common gender nouns by omitting the article, as in *Estudantes podem entrar*. (Students may enter.) or *Eu falei com professores*. (I spoke with teachers.); and hypernyms, as in *a comunidade médica* (the medical community), *a humanidade* (humanity), *o corpo docente* (the faculty). Although these non-sexist language practices help make language more inclusive, they often do not make NB forms visible.

2. Nonbinary gender

In Portuguese, creative ways of marking gender neutrality have been explored, with some proving more successful than others. The use of “x” or “@” (e.g., *meninx*, *cozinheir@*), for example, has become unproductive in the language because these forms are not readable by text processors (e.g., Cavalcante, 2022) and lack possible phonotactics, that is, they are unpronounceable (e.g., Freitag, 2024). The use of the suffix *-e* as a marker of nonbinariness seems to be more acceptable than other forms. In a Twitter (now X) exercise, Schwindt (2020) observed that the use of *amigue*, for instance, far surpassed the frequency of the form *amigx*.

Although the *-e* as a nonbinary marker appears more widely accepted, its use presents some linguistic challenges. For words whose plural form ends in *-es* (*professoras*, *tradutoras*), the nonbinary alternative *-ies* (*professories*, *tradutories*) has been proposed (e.g., Leão *et al.*, 2022). In spoken

language, it is assumed that the process of monophthongization will occur naturally, causing these forms to have the same pronunciation as the masculine plural (*profess[ɨs]*, *tradutor[ɨs]*) (e.g., Fiorin, 2022; Schwindt, 2020).

Despite these challenges, it is important to emphasize that NB forms are in the early stages of system regularization (Freitag, 2024), and it is therefore not surprising that linguistic challenges arise. However, we agree with the position of other linguists, including Fiorin, who argues that the complexity of these innovations will not destroy the language (a common argument among critics of the nonbinary system), but will instead “demonstrate its strength and power to, like all languages, embrace social transformations through the mechanisms of linguistic change” (Fiorin, 2022, p. 13).

The challenges of NB forms also occur in the ideological sphere, even leading to the proposal (and in some cases, approval) of laws to ban the use and/or teaching of these forms. Some of the justifications presented in the wording of these laws include the alleged lack of scientific or linguistic basis for their adoption and/or teaching, the perception that there is an intent to “push ideological agendas” in schools, and the idea of protecting the Portuguese language from being destroyed (Chagas; Soares; Silva, 2024, p. 43). Interestingly, Chagas *et al.* observed that the language used in these laws contained numerous grammatical errors, such as the omission of prepositions and conjunctions, punctuation mistakes, and poorly formed sentences.

In Spanish, a Romance language like Portuguese, the complexity of creating nonbinary alternatives reaches high levels, as gender marking occurs in nominal agreement, gender inflection, and pronominal reference. In an article published in 2021, Bonnin and Coronel report the findings of a study conducted in 2020 that aimed to reveal attitude trends toward NB forms in Argentina. This study showed a considerable disparity between the number of people who considered the NB form acceptable (74%) and those who were willing to use it (60%). They also revealed that NB forms are more accepted in vocative positions than in the middle of a sentence, which could indicate that their use is more directly associated with discursive strategies rather than a consolidated grammatical change. While this research offers insights into attitudes in Spanish, the following section turns to the case of Portuguese to examine how these dynamics unfold in a different linguistic setting.

3. The present study

This study seeks to investigate the attitudes of Portuguese speakers toward NB forms of Portuguese, considering the categories of comprehension, acceptance, and usage. It aims to examine whether the comprehension, acceptance, and usage of NB forms differ from binary, non-standard, and standard forms of Portuguese, as well as to explore speakers’ preferences for using NB forms in vocative positions and in short phrases (*amigas*) compared to long phrases (*amigas, amigos e amigas*). In this study, short phrases consist of a single non-binary word, while long phrases comprise three words (masculine, feminine, non-binary). The study also aims to analyze whether the order of

coordinated noun phrases in binary forms, specifically when the feminine form precedes the masculine, affects how sentences are perceived in the aforementioned categories.

The following research questions guide the study:

RQ1: Are there differences in the categories of comprehension, acceptance, and usage between non-binary, binary, nonstandard, and standard forms?

Hypothesis. We hypothesize that there are differences in comprehension, acceptance, and usage among the forms presented. For example, participants may accept NB forms but report not using them (Bonnin & Coronel, 2021; Soares & Silva, 2022). It is also possible that responses may vary depending on whether respondents are native Portuguese speakers or learners of Portuguese as a foreign language. Other factors, such as participants' age, gender, and level of education, may also affect perceptions of NB forms. For instance, Bonnin and Coronel (2021) found that women had more positive attitudes (greater acceptance) than men toward NB forms in Argentine Spanish.

RQ2: Are there differences in the categories of comprehension, acceptance, and usage when NB forms appear in vocative position compared to non-vocative positions?

Hypothesis. It is possible that NB forms used in vocative positions are more acceptable than when those forms appear in other syntactic positions. According to Freitag (2024, p. 107), "the vocative is a strong candidate for opening the doors of the system in Brazilian Portuguese." Baldez (2022) found that participants in their study tended to use nonbinary language in vocative positions in Portuguese. Similar effects were observed in Argentine Spanish (Bonnin & Coronel, 2021).

RQ3: Are there differences in the categories of comprehension, acceptance, and usage when NB forms are used in long phrases compared to short phrases?

Hypothesis. We hypothesize that there is a preference for the short phrase (*amigues*) over the long phrase (*amigas, amigos e amigues*) due to general principles of human information processing, in which longer sentences require more complex preparation because of factors such as working memory limitations and increased structural complexity (Gibson, 1998; Just & Carpenter, 1992).

RQ4: Does the order of binary forms, with the feminine preceding the masculine, affect the categories of comprehension, acceptance, and usage?

Hypothesis. We hypothesize that the double form with the feminine preceding the masculine (*amigas e amigos*) will not be rejected in terms of comprehension and acceptance, but its use may be less frequent due to the traditional convention of placing the masculine form first.

3.1. Data collection instrument

To elicit responses, a survey was developed containing sentences with different types of linguistic forms: nonbinary, binary, standard, and non-standard. In total, the survey consisted of 14 sentences (see Table 1). Participants were asked to evaluate the sentences based on three criteria: comprehension, acceptance, and usage. Versions of the same survey were created with instructions in three different languages: Portuguese, English, and Italian (the sentences to be evaluated remained in Portuguese). The goal was to reach as many participants as possible, including learners of Portuguese as a foreign language. The full Portuguese version of the survey can be viewed [here](#).

	Sentences	Linguistic forms
1	<i>Amigues, ontem a festa foi maravilhosa.</i>	nonbinary
2	<i>Amigas, amigos e amigues, ontem a festa foi maravilhosa.</i>	nonbinary
3	<i>Amigos e amigos, ontem a festa foi maravilhosa.</i>	binary
4	<i>Amigos e amigas, ontem a festa foi maravilhosa.</i>	binary
5	<i>Ontem encontrei com amigues na festa.</i>	nonbinary
6	<i>Ontem encontrei com amigas e amigos na festa.</i>	binary
7	<i>Ontem encontrei com amigos e amigas na festa.</i>	binary
8	<i>Ontem encontrei com amigas, amigos e amigues na festa.</i>	nonbinary
9	<i>Nós pega o peixe.</i>	non-standard
10	<i>Os livro é caro.</i>	non-standard
11	<i>A gente somos trabalhador.</i>	non-standard
12	<i>Nós fechamos a porta.</i>	standard
13	<i>Os carros são novos.</i>	standard
14	<i>A gente está desempregado.</i>	standard

TABLE 1 – Sentences presented to participants who assessed them according to criteria of comprehension, acceptance and usage.

Source: produced by the authors

In this study, we use the term “standard form” to refer to the commonly used standard variety, such as the language typically found in news broadcasts. In this sense, the comprehension of “standard form” in this research does not necessarily align with the concept of *norma padrão* (as opposed to *norma culta*) discussed by Faraco (2008), in which the standard language refers to the prescriptive norms of the language found in grammar books.

The survey was implemented on the online platform Qualtrics and was administered anonymously, with the sentences presented in random order within each block corresponding to one of the evaluation categories (comprehension, acceptance, and usage, in that order). Participants recorded their responses by clicking “Yes” or “No.” Additionally, the survey included demographic questions such as age, origin, gender, and level of education, among others, as well as open-ended questions such as: How comfortable do you feel using nonbinary forms (e.g., *amigues*) in your everyday conversations? Please explain. The survey took approximately 15 minutes to complete.

The survey was distributed through contacts via email, social media (WhatsApp, Facebook, and Instagram), and personal interactions with colleagues. The sampling technique used, known as snowball sampling, was deemed appropriate for the exploratory nature of this study, considering

the scarcity of specific research with significant sample sizes. This methodology is based on the progressive expansion of the sample, meaning the sample grows as participants refer other individuals to the study. However, the snowball sampling technique has important limitations, such as the potential for bias, due to its strong reliance on the social networks and relationship circles of the initial participants. Due to these limitations, the results of this study should be interpreted with caution, as there are restrictions regarding the generalization of the findings to broader populations.

A pilot study was conducted with speakers of Portuguese as a native language (L1) and as a foreign language (L2) to test and improve the survey before its application. This process allowed for the evaluation of aspects such as the estimated time needed to complete the survey, the adequacy of lexical choices, the structural organization, and the clarity of the instructions. Data were collected from October 15, 2024, to December 23, 2024.

3.2. Participants

A total of 332 individuals initially accessed the online survey. The first step in the data analysis was to check for missing data. Due to the sampling technique used, where control over the sample is limited, there is a higher possibility of missing data, such as incomplete responses or survey abandonment. In fact, out of a total of 13,423 potential responses, 3,027 (22.55%) missing responses were identified ([Appendix 1](#)¹). As a result, 84 participants (25.3%) were excluded from the study, either because they did not complete the sentence evaluations (either fully or partially) or because they did not provide the necessary demographic information for subsequent analysis. An additional analysis was conducted to identify potential patterns in the missing data, and it was found that 71 excluded participants (84.53%) started the survey but did not answer any of the questions, while the other 13 excluded participants (15.47%) left some questions unanswered in a random manner. Thus, the total number of participants in the study was 248, and the total number of observations (responses obtained) was 10,396.

All participants stated that they were speakers of Portuguese as their first language or as a foreign language. Participants from 14 countries responded to the survey: Brazil ($n=145$; 58.46%), United States ($n=64$; 25.8%), Portugal ($n=18$; 7.25%), and Angola ($n=5$; 2.01%); another 4.87% stated they lived in Japan ($n=2$; 4.87%), Canada ($n=1$), Colombia ($n=1$), Denmark ($n=1$), Scotland ($n=1$), Ireland ($n=1$), Italy ($n=1$), Mozambique ($n=1$), Norway ($n=1$), and Sweden ($n=1$). There were 4 (1.61%) participants who did not declare their place of residence.

Demographic information about the participants is shown in Table 2. Ages were grouped into three generations: Z (Generation Z), individuals aged 18 to 27 years; M (Millennials), ages 28 to 43 years; and X/BB (Generations X and Baby Boomers), ages 44 to 78 years. The decision to group

¹ An anonymous (blind) peer review link to the appendices of this study was created on Open Science Framework (OSF).

participants by generation reflects recent studies that have shown significant differences between generations, particularly regarding gender and identity issues (Twenge, 2023).

Gender	Generation	Education	L1 or L2	Survey Language
F: 166 (66.9%)	Z: 85 (34.3%)	EM: 20 (8.06%)	L1: 191 (77%)	P: 220 (88.7%)
M: 74 (29.8%)	M: 92 (37.1%)	F/U: 118 (47.6%)	L2: 57 (23%)	I: 28 (11.3%)
NB: 8 (3.23%)	X/BB: 71 (28.6%)	M: 52 (21%)		
		D: 58 (23.4%)		

TABLE 2 – Information about participants' background ($n=248$). Raw numbers followed by their respective percentages. F (female); M (male); NB (nonbinary); Z (generation Z); M (Millennials); X/BB (generations X and Baby Boomers); EM (high school); F/U (college and university); M (master's degree); D (doctorate); L1 (Portuguese as a first language); L2 (Portuguese as a foreign language); P (Portuguese); I (English). The survey in the Italian version received no responses.

Source: produced by the authors

3.3. Statistical procedures

Statistical analyses were performed using the R software (R Development Core Team, 2023). The statistical procedure for analyzing associations between variables was the Chi-squared Independence Test (χ^2). The conditions for using the non-parametric Chi-squared test were verified: the collected data are nominal variables, and the sample size is adequate (the frequency in each cell of the contingency table is much higher than the minimum expected for this type of test). To ensure the independence of observations, several steps were taken. We verified that there were no occurrences of duplicate data or individuals repeating the survey (Qualtrics provides an individual identification list for each participant). Whenever multiple comparisons were made, the correction method used was Bonferroni. For statistical analyses, only positive responses were considered. Cramér's V (Cramér, 1946) was used to assess the strength of association between two nominal variables. The interpretation of Cramér's V, based on degrees of freedom (d. f.), follows Bobbitt (s.d.). This article focuses on the quantitative analysis of the survey, while the qualitative analysis (related to the open-ended questions) will be addressed in a future article.

4. Results

4.1. Nonbinary forms

To answer RQ1 (Are there differences in the categories of comprehension, acceptance, and usage between nonbinary, binary, non-standard, and standard forms?), we analyzed whether the responses

were influenced by the type of linguistic in the 14 sentences (n. of observations = 10,396; n. of participants = 248). In general, participants tend to give more affirmative responses when the sentences have standard forms (91.9%), followed by binary forms (89.6%), NB forms (63.8%), and lastly, non-standard forms (52.6%). Figure 1 shows the distribution of responses by categories and sentence types.

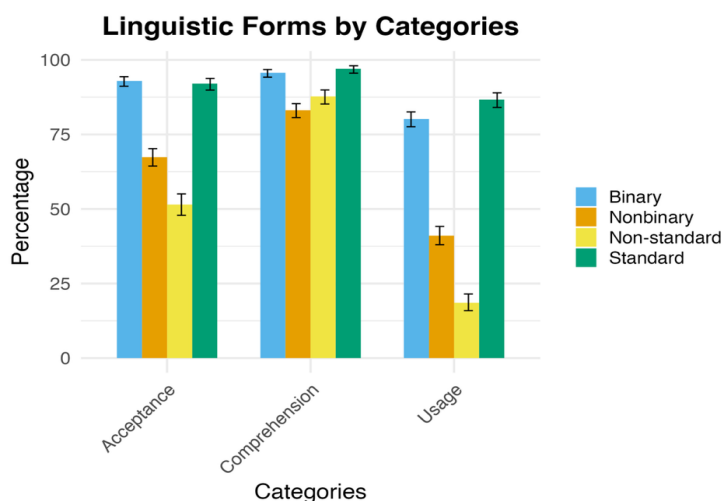


FIGURE 1 – Distribution of responses by sentence type (nonbinary, binary, standard, non-standard) and categories (comprehension, acceptance, usage) with a 95% confidence interval.

Source: produced by the authors

Both the standard form and the binary form received the highest percentage of affirmative responses for comprehension (97% and 95.7%, respectively), acceptance (92% and 92.9%), and usage (86.7% and 80.2%). Next were the NB forms, followed by the non-standard form with the respective percentages for comprehension (83.1% and 87.8%), acceptance (67.4% and 51.5%), and usage (41.1% and 18.5%). It is interesting to note that the most noticeable difference is in the use of nonbinary and non-standard forms (Figure 1). The Chi-squared test revealed that the differences between sentence types and categories were significant: $\chi^2 (6, n=248) = 249.6, p < 2.2e-16$, and the strength of the association was moderate (Cramér's $V = 0.1266$).

To investigate the specific sources of significant differences, post hoc pairwise comparisons were conducted with Bonferroni correction. The only association between the categories of comprehension, acceptance, and usage that was not significant was between the binary form and the standard form: $\chi^2 (2, n = 248) = 1.6835, p=0.432$, Cramér's $V = 0.0189$. This result was expected, as binary language and standard language overlap in several aspects. This occurs primarily because the normative structure of the language reinforces binary gender categories, establishing them as the official or conventional form of use. In this way, traditional grammar tends to privilege male and female as the only possibilities, which influences the perception of forms that deviate from this standard.

The pairs that were significantly different were: nonbinary and binary: $\chi^2 (2, n = 248) = 46.748$, $p = 7.059e-11$, Cramér's $V = 0.1013$; binary and non-standard: $\chi^2 (2, n = 248) = 187.66$, $p < 2.2e-16$, Cramér's $V = 0.2212$; nonbinary and non-standard: $\chi^2 (2, n = 248) = 61.973$, $p = 3.489e-14$, Cramér's $V = 0.1421$; nonbinary and standard: $\chi^2 (2, n = 248) = 55.645$, $p = 8.257e-13$, Cramér's $V = 0.1188$; non-standard and standard: $\chi^2 (2, n = 248) = 192.98$, $p < 2.2e-16$, Cramér's $V = 0.2448$. [Appendix 2](#) shows the list of comparisons between categories for each pair. Figure 2 shows the visual distribution of responses between the pairs.

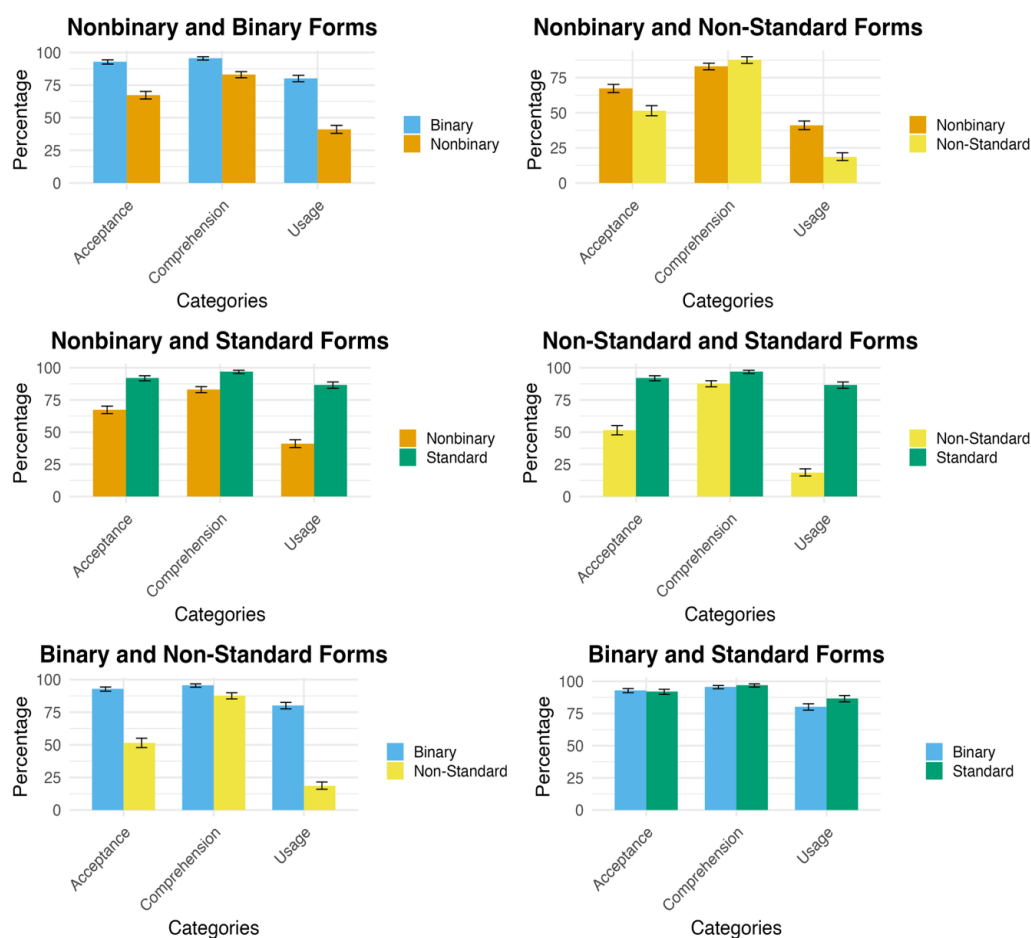


FIGURE 2 – Distribution of responses in paired comparison by sentence types (nonbinary, binary, standard, non-standard) and by categories (comprehension, acceptance, usage) with a 95% confidence interval.

Source: produced by the authors

Given the overall significant result of the Chi-Squared test, post-hoc tests were conducted to identify the specific differences. Comparisons for each combination between the groups for each level of the category (comprehension, acceptance, usage) were performed. The results of these tests are shown in Table 3.

Pairs	χ^2 (2, $n=248$)	p value	Categories	Adjusted p	Significance Level	Cramér's V
NB and Binary	46.748	7.059e-11	Comprehension	7.24e-19	***	0.204
			Acceptance	2.80e-45	***	0.320
			Usage	4.08e-70	***	0.400
NB and Non-Standard	61.973	3.489e-14	Comprehension	8.92e-3	**	0.064
			Acceptance	2.86e-11	***	0.161
			Usage	2.81e-23	***	0.240
NB and Standard	55.645	8.257e-13	Comprehension	2.61e-19	***	0.221
			Acceptance	9.62e-34	***	0.294
			Usage	1.08e-81	***	0.462
Non-Standard and Standard	192.98	2.2e-16	Comprehension	9.38e-11	***	0.175
			Acceptance	1.22e-66	***	0.450
			Usage	1.23e-151	***	0.682
Non-Standard and Binary	187.66	2.2e-16	Comprehension	5.49e-9	***	0.147
			Acceptance	5.17e-86	***	0.475
			Usage	4.33e-142	***	0.612

TABLE 3 – List of post-hoc paired comparisons between group pairs for each category. Tests adjusted using the Bonferroni correction method. p -values are provided in scientific notation. Asterisks indicate the level of statistical significance, where *, **, and *** correspond to $p < 0.05$, $p < 0.01$, and $p < 0.001$, respectively. The respective magnitudes of the associations are provided by Cramér's V. The shaded bands in the Cramér's V column indicate interpretation ranges: cells without shading represent a small association strength, those with light gray shading indicate a medium effect, and those with dark shading indicate a large effect.

Source: produced by the authors

These results show that no differences in comprehension, acceptance, and usage were observed when comparing binary and standard forms. However, nonbinary, standard, and non-standard forms differ from each other in terms of their comprehension, acceptance, and usage. The general trend, regardless of sentence type, is that comprehension is greater than acceptance, and acceptance is greater than use, with the strength of the association being mostly medium or high.

As shown in Table 3, participants are sensitive to sentence type. For example, participants gave more positive responses to sentences with binary and standard forms as opposed to NB forms. However, when comparing nonbinary with non-standard forms, participants reported higher acceptance and usage of NB forms, indicating a greater willingness to adopt linguistic innovations that promote gender inclusivity, as opposed to those perceived as socially stigmatized.

In the following analysis, we examined whether the independent variables (gender, generation, education level, Portuguese as L1 or L2, and the language of the survey) affect the evaluation of sentences containing NB forms.

4.1.1. Gender

Overall, the group that responded most positively to NB forms was individuals who identified as nonbinary. Their responses showed 100% comprehension, 100% acceptance, and 68.8% usage. The next most positive group was individuals who identified as females, reporting 83.9% comprehension, 69.8% acceptance, and 45.2% usage. The group with the fewest positive responses was the male group, with 79.5% comprehension, 58.4% acceptance, and 28.6% usage. [Appendix 3](#) presents the full table with frequencies, percentages, and 95% confidence intervals (CI) for responses by gender and categories.

All genders (female, male, and nonbinary) showed the same trend when evaluating nonbinary sentences: the sentences are more often understood than accepted, and more often accepted than used (Figure 3). Nonbinary participants tend to have a much more positive perception of NB forms than female and male participants, even though they report using them less frequently than they accept or understand them.

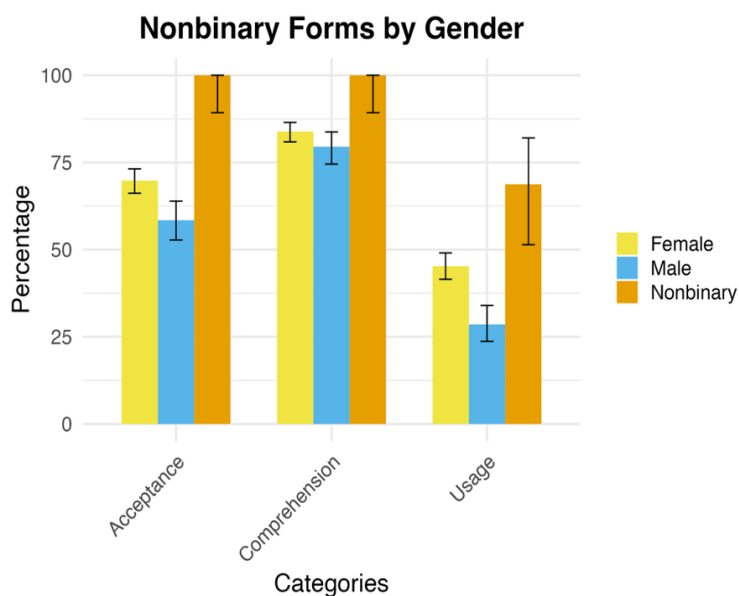


FIGURE 3 – Distribution of responses in the assessment of nonbinary forms across the categories of comprehension, acceptance, and usage by gender (female, male, nonbinary), with a 95% confidence interval.

Source: produced by the authors

However, the difference between genders across the three categories did not reach the conventional level of statistical significance (χ^2 (4, $n = 248$) = 9.1936, $p = 0.05644$). The strength of the association between variables, Cramér's $V = 0.04925$, was small. Still, the result being very close to the conventional significance threshold ($p < 0.05$) suggests a trend toward significance. The marginal result may have been influenced by the similar distribution of positive responses across the different genders and categories (all participants, regardless of gender, reported comprehension and

accepting NB forms more than using them), resulting in little variation for the statistical test to detect a difference. Moreover, the unequal distribution of sample size, with the nonbinary group being much smaller ($n = 96$) compared to the male ($n = 883$) and female ($n = 1,989$) groups, may have contributed to an underestimation of the true association between the variables. It is possible that with a slightly larger sample of nonbinary participants, significant associations could be detected. Increasing the sample size may yield more definitive results. We hope that future research will explore this issue using larger samples.

4.1.2. Generation, education level, Portuguese as L1 or L2, and survey language

Beyond gender, associations between other independent variables and responses to NB forms were analyzed across the categories of comprehension, acceptance, and usage. The variables included: generation (Z, Millennials, and X/BB, combining Generation X and Baby Boomers), education level (high school, college/university, master's, doctorate), whether Portuguese was participants' L1 or L2, and the language in which they completed the survey (Portuguese, English or Italian). Since we did not have participants answering the survey in Italian, only results from Portuguese and English versions were analyzed. Figure 4 presents the overall distribution of responses for each variable across the three evaluation categories.

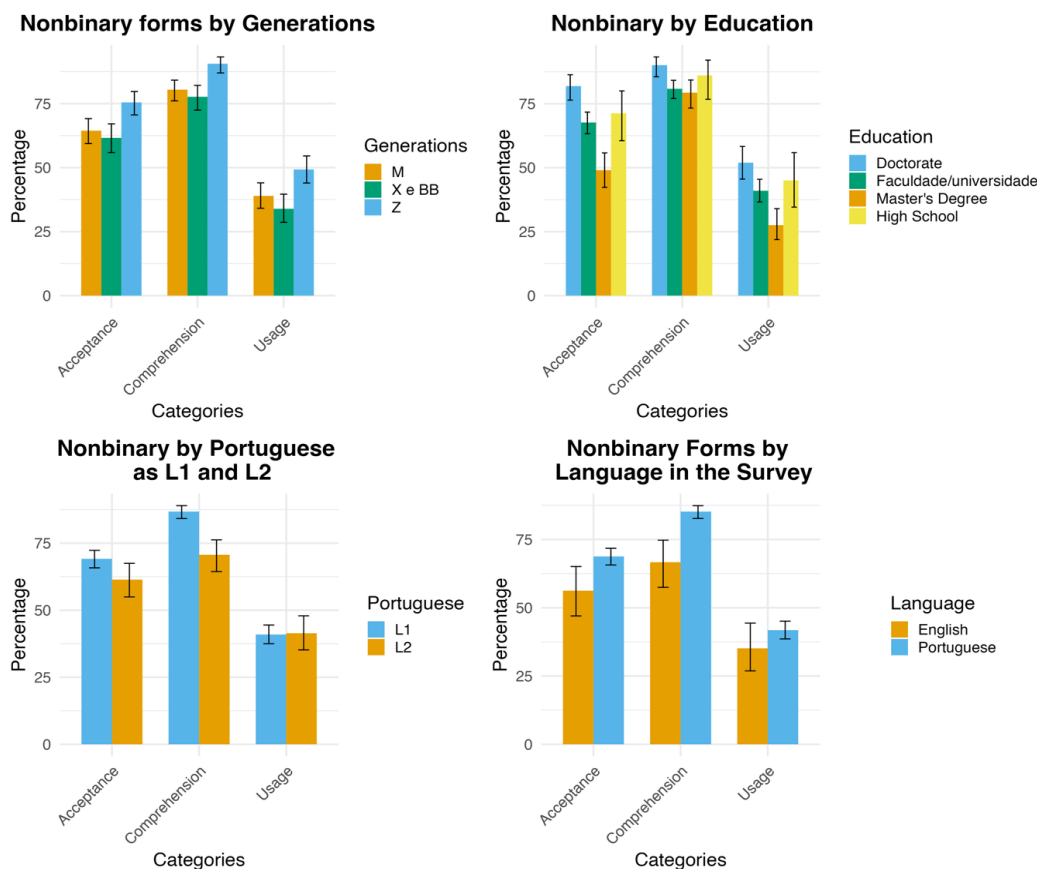


FIGURE 4 – Distribution of responses in the assessment of nonbinary forms across the categories of comprehension, acceptance, and usage by variable (generation, education level, whether Portuguese is L1 or L2, and survey language). 95% confidence interval.

Source: produced by the authors

Figure 4 shows that, regardless of the variable considered, there is a general trend among participants to understand NB forms more than accepting them, and to accept them more than using them. Tables with raw values, percentages, and 95% confidence intervals by category (comprehension, acceptance, and usage) for each variable is provided: generation ([Appendix 4](#)), education level ([Appendix 5](#)), Portuguese as L1 or L2 ([Appendix 6](#)), and survey language ([Appendix 7](#)).

Participants were speakers of Portuguese as L1 and L2. Overall, L1 group provided more affirmative responses (65.6%) than the L2 speakers (57.8%) in the assessment of NB forms (Figure 4). Both groups showed the same trend across categories: greater comprehension (L1=86.8%; L2=70.7%), followed by acceptance (L1=69.2%; L2=61.4%), and less use of NB forms (L1=40.9%; L2=41.4%). The statistical results were not significant $\chi^2 (2, n = 248) = 2.4389$, $p = 0.2954$, and the association was weak (Cramér's $V = 0.0357$).

The survey was done either in Portuguese or in English. To ensure that the language of the survey did not affect the participants' responses, this variable was analyzed. Overall, people who answered the survey in Portuguese tended to give more positive responses to NB forms (65.3%)

than those who answered in English (52.7%) (Figure 4). These two groups had the same response trends: more positive responses for comprehension (Portuguese=85.2%, English=66.7%), followed by acceptance (Portuguese=68.8%, English=56.2%) and usage of the NB forms (Portuguese=41.8%, English=35.1%). Statistical analysis confirmed that there was no significant effect of the languages in the survey (χ^2 (2, n =248) = 0.14785, p =0.9287), with negligible association (Cramér's V = 0.0088).

In general, Generation Z (the youngest generation) responded most positively to the assessment of NB forms (71.8%), followed by the Millennial generation (61.3%) and Generation X and Baby Boomers (57.7%) (Figure 4). Three generations showed the same trend: greater comprehension of NB forms (Generation Z=90.6%, Millennial generation=80.4%, Generation X-Baby Boomers=77.7%), followed by acceptance (Generation Z=75.4%, Millennial generation=64.4%, Generation X-Baby Boomers=61.6%), and then usage (Generation Z=49.3%, Millennial generation=39.0%, Generation X-Baby Boomers=33.9%). The Chi-Squared test indicated that the differences were not significant χ^2 (4, n =248) = 2.0817, p =0.7207, with Cramér's V = 0.02343, a negligible association. These results highlight the consistency across age groups and the similar trend across generations in the positive evaluation of NB forms: comprehension > acceptance > usage.

Participants were divided into four education levels: high school, college/university, master's, and doctorate. Overall, the group that responded most positively to the assessment of NB forms was the doctoral group (74.7%), followed by high school (67.4%), college/university (63.1%), and master's (52.8%) (Figure 4). The distribution of responses by category reflects this same trend, with participants from the doctoral and high school groups having a highest percentages of responses across the categories of comprehension, acceptance, and usage. However, these differences were not significant χ^2 (6, n =248) = 10.204, p =0.1163, with a low strength of association (Cramér's V = 0.0518).

To investigate the possible association between generation and education level², a chi-square test of independence was conducted. Table 4 presents distinct education profile, with Generation X and Baby Boomers (X/BB) showing the highest proportion of Doctoral degree, Millennials were balanced across Doctoral degree and Master's degree, and Generation Z predominantly associated with college and high school, with no Doctoral degrees. The chi-square test revealed a significant association between these generation and education levels (χ^2 (6, n = 248) = 93.589, p < 0.001), suggesting that education levels vary significantly across generations. These findings suggest that, in this sample, generational cohort and educational background are not independent.

² We would like to acknowledge the contribution of a reviewer for this valuable feedback on these analyses.

	Doctoral Degree	Master's Degree	College	High school	Total
X/BB	32 (45.07%)	16 (22.54%)	21 (29.58%)	2 (2.82%)	92 (100%)
M	26 (28.26%)	30 (32.61%)	36 (39.13%)	0 (0%)	71 (100%)
Z	0 (0%)	6 (7.06%)	61 (71.76%)	18 (21.18%)	85 (100%)

TABLE 4 – Contingency table of generations and education levels with raw counts and raw percentages ($n = 248$ participants). X/BB: Generation X and Baby Boomers, M: Millennials, Z: Generation Z.

Source: produced by the authors

Although a significant association exists between generation and education level, analyzing their effects on survey responses separately is justified to isolate their individual contributions to understanding, acceptance, and use of non-binary forms. This approach enables examination of whether generational cohort or educational background independently influences response patterns, clarifying their unique roles and enhancing the interpretability of the findings in the context of the survey's objectives.

In summary, none of the independent variables considered in this study (gender, generation, education level, Portuguese as L1 or L2, language of the survey) significantly affected the evaluation of NB forms across category of comprehension, acceptance, and usage. In other words, the trends observed (e.g., participants demonstrated higher levels of comprehension than acceptance, and higher acceptance than usage) remained consistent regardless of the independent variables analyzed. It is important to note that the complexity of analyzing multiple independent variables, each with several levels, may have reduced statistical power. Future research could simplify categories (e.g., collapsing educational levels) or use a larger sample to enhance the detection of significant effects.³

4.2. Nonbinary forms in vocative syntactic position

To address RQ2 (Are there differences in the categories of comprehension, acceptance, and usage when NB forms appear in vocative positions compared to other non-vocative positions?), we considered responses to NB sentences numbered as 1 (with vocative) and 5 (without vocative); both contained NB form in short phrases (*amigues*). A total of 1,486 observations were analyzed. Overall, the results showed the respective positive response to vocative and non-vocative positions: 82.7% and 85.8% for comprehension, 71.4% and 68.4% for acceptance, and 49.6% and 46.4% for usage. Statistical result confirmed that the differences were not significant χ^2 (2, $n = 248$) = 0.49051, $p = 0.7825$, Cramér's $V = 0.02214$. The hypothesis that NB forms in vocative position would

³ We would like to acknowledge the contribution of a review for this valuable insight.

receive more positive responses than in other positions was not confirmed in this study. Regardless of the syntactic position, participants evaluated the NB forms in similar ways: comprehension was higher than acceptance, and acceptance was higher than usage.

4.3. Nonbinary forms in long phrases

To address RQ3 (Are there differences in the categories of comprehension, acceptance, and usage when nonbinary forms are used in long phrases compared to short phrases?), we considered responses to NB sentences numbered as 2 and 8 (long phrases), and 1 and 5 (short phrases). The total number of observations was 2,968. Overall, more positive responses appeared in short phrases (*amigas*) than in long phrases (*amigas, amigos e amigas*), respectively, for comprehension (84.2% vs. 82%), acceptance (69.9% vs. 64.8%), and usage (48% vs. 34.1%). Figure 5 shows the most prominent difference is in the category of usage. Statistical results revealed a significant difference: $\chi^2 (2, n = 248) = 7.1623, p = 0.02784$, Cramér's $V = 0.06148$.

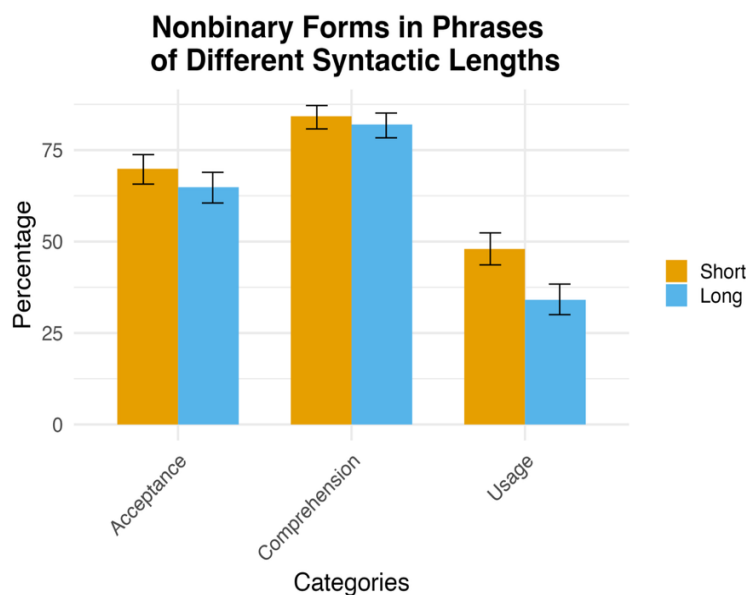


FIGURE 5 – Distribution of affirmative responses in the evaluation of nonbinary forms in long and short phrases by category (comprehension, acceptance, usage). The error bars represent 95% confidence interval.

Source: produced by the authors

The follow-up test showed no significant difference between long and short phrases in terms of comprehension ($p \text{ adj}^4$. $\text{Chisq} = 1$; Cramér's $V = 0.0301$) and acceptance ($p \text{ adj}$. $\text{Chisq} = 0.311$; Cramér's

⁴ $p \text{ adj}$ refers to the adjusted p -value from a chi-square test adjusted for multiple comparisons using Bonferroni correction to control the family-wise error rate across response categories.

$V = 0.0539$). However, the usage of the phrases differed significantly (p adj. $\text{Chisq} = 0.000035$; Cramér's $V = 0.141$), that is, participants reported using NB forms in short phrases more frequently than in long phrases. Therefore, the hypothesis that NB forms in short phrases would receive more positive responses than in long phrases was partially confirmed, since the difference was found only for usage, not for comprehension or acceptance.

4.4. Binary forms with the feminine preceding the masculine

To address RQ4 (Does the order of binary forms, with the feminine preceding the masculine, affect the categories of comprehension, acceptance, and usage?), we considered responses to sentences numbered as 3 and 6 (feminine followed by masculine) and 4 and 7 (masculine followed by feminine). The total number of observations was 2,970. Overall, both the forms received high percentage of positive responses, respectively, for comprehension (95.6% and 95.8%), acceptance (92.9% and 92.9%), and usage (80.2% and 80.2%). Statistical test showed no significant difference, with a negligible strength of association: χ^2 (2, $n = 248$) = 0.00088524, $p = 0.9996$, Cramér's $V = 0.0005768$. Our hypothesis was not confirmed: no difference across categories were detected between having the feminine form first (*amigas e amigos*) or masculine form first (*amigos e amigas*).

5. Discussion

This study provides empirical evidence of how Portuguese speakers currently perceive NB forms. It also offers a glimpse into how these innovative forms are perceived in relation to traditionally stigmatized linguistic phenomena in Portuguese. The research analyzes participants' perceptions of NB forms across three categories: comprehension, acceptance, and usage. Based on the analyses, we are able to address our research questions. Table 5 shows a summary of the results for each research question.

Research Questions	Main Results Summary
RQ1	• NB forms are less understood, accepted and used than binary/standard forms, but more accepted and used than non-standard forms. • A comprehension > acceptance > usage hierarchy observed across all forms. • No significant effects of gender, though near-significant, with nonbinary and women showing more positive attitudes. • No significant effects of generation, education, L1/L2, or survey language were found.
RQ2	• No significant difference in NB form evaluation between vocative and non-vocative positions.
RQ3	• Greater willingness to use NB forms in short noun phrases compared to long ones, indicating structural complexity influences adoption.
RQ4	• No significant difference in evaluation of binary forms with feminine-first vs. masculine-first order.

TABLE 5 – summary of the results for each research question
Source: produced by the authors

First, we found significant differences across the categories of comprehension, acceptance, and usage when it comes to NB forms compared to other forms in Portuguese. NB forms were perceived as less understood, less accepted, and less used than binary and standard forms. However, when compared to non-standard forms, NB forms were significantly more accepted and used, though not significantly more understood (RQ1). This finding is revealing, as it suggests that while NB forms still encounter resistance, they may be more legitimized than variants traditionally associated with social stigma. It points to a potentially faster process of legitimation for NB forms compared to other deviations from the standard norm, likely influenced by sociocultural factors such as increasing public discourse on inclusion and the growing visibility of nonbinary gender identities. Moreover, this challenges narratives that NB forms are not understood, accepted, or used in Portuguese. On the contrary, the data show that these forms are recognized and actively used in linguistic practice. This also invites reflection on a possible hierarchy of prestige among non-hegemonic varieties, where innovative forms driven by sociopolitical motivations may be gaining greater legitimacy and uptake than popular forms historically marked by stigma.

Next, we found that none of the variables investigated (gender, generation, Portuguese as L1 or L2, and survey language) had a significant effect on the categories of comprehension, acceptance, and usage of NB forms. Therefore, our hypothesis for RQ1 was only partially confirmed: while there are differences in comprehension, acceptance, and usage of NB forms compared to other linguistic options in Portuguese, these differences are not influenced by the independent variables, which suggests that perceptions of NB forms are consistent across the different groups analyzed in the sample. This result challenges claims that NB forms are predominantly used by highly educated speakers (Borba, 2021 apud Fiorin, 2022, p. 13). However, these findings should be interpreted with

caution, particularly given the small number of NB participants and the use of the snowball sampling technique. Future research with more representative samples may help determine whether this pattern of consistency holds in broader contexts.

It is also important to interpret the gender-related results with caution, as the p -value was very close to the significance threshold. While the statistical results were borderline, it is noteworthy that participants' gender appeared to influence their evaluation of NB forms. Individuals who identified as nonbinary demonstrated the most positive attitudes, reporting unanimous comprehension and acceptance, and with high levels of usage. Women followed, showing a pattern in which comprehension exceeded acceptance, and acceptance exceeded usage. Men reported the lowest percentages across all three categories, indicating greater resistance to NB forms, particularly in terms of usage. These findings align with previous studies, such as those by Bonnin and Coronel (2021), which observed more favorable attitudes toward NB forms among nonbinary individuals and women in the Argentine context. Although this result did not meet the conventional threshold for statistical significance, it suggests a trend at the intersection of language and gender, indicating that gender identity factors may influence participants' attitudes toward linguistic innovations. This also implies that attitudes toward NB forms are not solely rooted in grammatical concerns but reflect broader ideological positions. Furthermore, it underscores the influence of personal experiences and identification with historically marginalized groups in shaping support for and integrating of linguistic innovations. Thus, individual experiences and lived realities play a pivotal role in promoting the adoption of NB forms.

Statistically significant differences were found between the following pairs: (1) nonbinary vs. binary; (2) binary vs. non-standard; (3) nonbinary vs. non-standard; (4) nonbinary vs. standard; and (5) non-standard vs. standard. The only exception was between binary and standard forms, for which the difference in responses was not statistically significant. This lack of difference is unsurprising, as both binary and standard forms express gender in similar ways and are generally perceived by Portuguese speakers as conventional linguistic options.

As initially hypothesized, we observed significant differences in the levels of comprehension, acceptance, and usage of NB forms among survey respondents. Overall, comprehension was highest, followed by acceptance and then usage, findings that align with previous studies such as Bonnin and Coronel (2011) and Soares and Silva (2022). This response pattern highlights two key points: first, it indicates that participants recognize and understand NB forms, challenging the common claim that such forms are unintelligible to language users. Second, it reveals a gap between understanding and actual usage, suggesting a practical resistance to employ NB forms, even when they are accepted. This resistance is likely driven more by ideological than strictly linguistic factors. However, since the present analyses is based solely on quantitative survey data, we will address participants' potential reasons for not using NB forms in a forthcoming article focused on the qualitative findings.

Conversely, the pattern of greater comprehension followed by acceptance and then usage was also observed across the other linguistic forms analyzed (non-standard, binary, and standard), indicating that this hierarchy is not unique to NB forms. This suggests that the sequence (comprehension

> acceptance > usage) may be a general feature of how linguistic forms are processed, regardless of their level of innovation or alignment with traditional norms. While NB forms remain in an early stage of adoption, their increasing recognition may signal a trajectory toward broader acceptance and, eventually, more widespread use, mirroring the pattern seen with other forms in this study.

In relation to syntactic position, no significant differences were found in the evaluation of NB forms in vocative versus non-vocative positions (RQ2). This contrasts with previous studies, such as those Baldez (2022) and Freitag (2024), which suggest greater acceptability of NB forms in vocative positions. These findings may indicate that the acceptability of NB forms is expanding beyond traditionally restricted contexts like the vocative, although their usage remains less widespread overall. Additionally, this suggests a growing familiarity with NB forms in various syntactic contexts, not limited to vocative, reflecting a broader openness to their integration in the language.

Regarding the order of the feminine before the masculine in binary forms versus the reverse, no statistically significant difference was found (RQ4). This suggests consistency across the groups and a general willingness to understand, accept, and use both ordering options as valid linguistic alternatives.

The analysis also reveals a greater willingness to employ NB forms in short noun phrases compared to long ones, supporting the hypothesis that structural complexity may influence speakers' decisions (RQ3). Short phrases may therefore serve as entry points for incorporating NB gender markers, suggesting an initial phase of naturalization in which speakers experiment with innovative forms in less marked contexts.

While the survey included participants from 14 countries, the sample was not evenly distributed geographically. A majority of respondents were from Brazil (58.46%) and the United States (25.8%), with much smaller numbers from other countries. This uneven distribution may introduce bias, particularly in exposure to NB forms, and sociopolitical contexts regarding gender and linguistic innovation. The overrepresentation of Brazilian and U.S.-based respondents may limit the generalizability of the findings to other Portuguese-speaking communities.

6. Final considerations

Researching non-binary forms in language, as conducted in this study, raises ethical considerations related to participant representation and sensitivity. Given the survey's focus on non-binary gender markers, ensuring diverse gender identities, particularly non-binary participants, are adequately represented is crucial to avoid marginalization, yet the small number of non-binary respondents (noted as limited in the study) may skew findings. Ethical research in this area demands transparency about sampling limitations and culturally sensitive analysis to ensure fair and unbiased outcomes.

Studies like this one may carry important implications not only for future research but also for language policies and educational practice. Efforts to promote the integration of NB forms must take into account both linguistic and social dimensions, addressing not only structural factors but also

the diverse motivations behind resistance to linguistic innovation. Educational initiatives that foster familiarity with and normalization of NB forms can play crucial role in increasing their acceptance and usage, particularly if they begin with simpler syntactic structures, which, as this study indicates, are more conducive to the adoption of NB forms.

In conclusion, we emphasize the importance of empirical research in an era marked by science denial and resistance to evidence-based knowledge. Research not only allows us to understand and map emerging linguistic trends but also plays a vital role in challenging prejudiced narratives and unfounded opposition. In contexts of social and political polarization, conducting research becomes both an act of resistance and an ethical commitment to knowledge and to building a more just and pluralistic society. Valuing and disseminating this knowledge is, therefore, a means to actively contributing to the transformation of education, language, and the social relationships that intersect both. It is also a way to affirm the legitimacy of emergent linguistic forms, give visibility to non-normative experiences, and promote greater justice across educational, institutional, and linguistic spheres.

We hope this study contributes to the still-emerging field of research on innovative NB forms by offering insights into linguistic change as it unfolds in real time. Ultimately, it aims to challenge prejudice and unfounded claims about comprehension, acceptance, and usage of NB forms, providing a more robust empirical foundation for informed debate and the ongoing pursuit of linguistic justice.

Additional information

Evaluation and author's answers

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Author's answers: <https://doi.org/10.25189/rabralin.v24i1.2313.A>

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EVALUATOR 1

O artigo intitulado “Comprehension, Acceptance and Usage of Nonbinary Forms among Portuguese Speakers” apresenta os resultados de uma pesquisa experimental envolvendo um número significativo de sujeitos participantes (248, de 14 países diferentes), cujo objetivo foi investigar a percepção e as atitudes de falantes nativos e não nativos de português diante de formas linguísticas não binárias. O artigo apresenta metodologia detalhada e robusta e apresenta precisão na aplicação dos métodos estatísticos. Suas questões de trabalho e hipóteses estão bem formuladas e foram satisfatoriamente respondidas no decurso do texto. Aponto como ponto positivo a disponibilidade do formulário do experimento, o que permite mais clareza em seu entendimento e possível replicação. A literatura utilizada como referencial é atual e relevante, com destaque para os trabalhos sobre o português brasileiro. Gostaria, no entanto, de acrescentar o trabalho de Carvalho (2024), publicado na Revista Acta Scienciarum, em que o autor também se utiliza de experimento offline para verificar a percepção e as atitudes linguísticas de falantes brasileiros sobre o uso de formas pronominais não binárias. Acredito que seus resultados possam contribuir com esses encontrados pelas autoras. Ainda, apesar de a análise estatística ser suficiente para os fins do trabalho, acredito que a discussão sobre prestígio e ideologia linguística (e.g. os trabalhos de Eckert (2008), Erez e Ye (2020) e Gal (2023)) possa contribuir para reforçar seus argumentos sobre hierarquia de prestígio entre variedades não hegemônicas. Por fim, o artigo precisa de uma revisão, pois apresenta alguns erros de digitação. A partir do acima exposto e considerando se tratar de um estudo empírico robusto, de grande relevância teórica e social, sou de parecer favorável à publicação.

EVALUATOR 2

Sugiro que o artigo “COMPREHENSION, ACCEPTANCE AND USAGE OF NONBINARY FORMS AMONG PORTUGUESE SPEAKERS” seja aceito para publicação. O título se relaciona precisamente com o assunto, o objetivo e a metodologia do trabalho. O resumo contém objetivo, relevância do tema, metodologia e resultados. Há também uma versão do resumo para não especialistas. A metodologia experimental utilizada, combinada a uma análise empírica, são adequados aos propósitos do

trabalho. Foi feita uma análise estatística que contribui para a compreensão mais apurada dos resultados encontrados. Os gráficos são claros e organizados, facilitando análises comparativas. Há discussões adequadas, reconhecimento de limitações do estudo e sugestões de pesquisas futuras. A área de estudo é relevante e traz uma contribuição para os estudos linguísticos, uma vez que trata de formas não-binárias, um tema bastante atual, que lida com a relação linguagem-sociedade-ideologia. Sugiro alguns poucos ajustes de linguagem no arquivo em anexo, além de alguns outros pontos de reflexão e possível alteração no artigo.

EVALUATOR 3

O artigo apresenta uma contribuição relevante e original ao investigar, de forma empírica e fundamentada, as atitudes de falantes de português em relação às formas não binárias, tema da atualidade e de grande impacto social. O manuscrito demonstra clareza metodológica, rigor na análise estatística e diálogo consistente com a literatura especializada, além de adotar práticas alinhadas à ciência aberta. Recomendo a aceitação com pequenas revisões, especialmente quanto à uniformização das referências, à apresentação dos dados quantitativos em formato mais sintético e à delimitação explícita entre as análises qualitativa e quantitativa. Parabenizo as autoras pelo trabalho e incentivo a continuidade das investigações no campo da linguagem inclusiva.

AUTHOR'S ANSWER

Prezados pareceristas da Revista Abralín,

Agradecemos pela leitura atenta e pelas valiosas contribuições para o aprimoramento do artigo. Incorporamos todas as sugestões recebidas ao texto revisado, com uma ou duas exceções, justificadas nas respostas aos comentários, em anexo.

Agradecemos a todos os pareceristas, incluindo o professor Dannel Carvalho pelas indicações da leitura, que serão fundamentais para a análise qualitativa do estudo que planejamos iniciar em breve.

Anexamos a versão revisada do artigo e as respostas aos comentários para sua apreciação.

Atenciosamente,

As autoras.

Conflicts of interest

The authors have no conflicts of interest to declare.

Data Availability Statement

The data, code, and other materials supporting the findings of this study are available upon request in an institutional drive maintained by the authors.

Ethics

Ethical procedures followed the guidelines of the Institutional Review Board for Human Participants (IRB), and the protocol number will be added here after the blind peer review.

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