

Received: 2025-05-20  
Accepted: 2025-10-26

Online first publication date: 2026-01-20  
DOI: <https://doi.org/10.1387/asju.27562>



## Grammatical Gender Agreement in Ondarroa Basque: A Triangulation Study of Production & Attitudes<sup>1</sup>

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**ABSTRACT:** Basque (Euskera) and Spanish are two languages in contact in the Basque Country. One linguistic aspect both languages diverge in is grammatical gender agreement: while Spanish produces grammatical gender agreement, Basque does not. Interestingly, some western Basque varieties have been reported to exhibit Spanish-style gender marking with some adjectives derived from Spanish and only in oral production. However, no empirical study has corroborated this observation. Thus, with the aim of delimiting the (in)existence of grammatical gender agreement in Basque, this project triangulates the production of and attitudes towards grammatical gender use with 20 Ondarroa Basque speakers (a western Basque variety belonging to the province of Bizkaia). Results suggest that Spanish-style grammatical gender agreement is possible with Spanish-originated and Basque adjectives, and that it is perceived as natural, respectful, and part of Basque. **KEYWORDS:** Basque (Euskera); grammatical gender agreement; Ondarroa; triangulation; production; attitudes.

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<sup>1</sup> This project was partly funded by the Full-Time Faculty Professional Development Fund of the Office of the Provost at Northeastern University.

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## 1. Introduction

Basque (Euskera) is a minoritized language in contact with Spanish in the Basque Autonomous Community (Euskal Autonomia Erkidegoa) and Navarre (Nafarroa), and with French in Northern Basque Country (Ipar Euskal Herria). Focusing on the contact between Basque and Spanish, one of the aspects both languages diverge in is grammatical gender agreement production. While Spanish produces grammatical gender agreement as in (1) (RAE and ASALE 2009),<sup>2</sup> Basque does not, as in (2), meaning that nouns and adjectives end in the same way in Basque regardless of the gender of the antecedent (Laka 1996; Euskaltzaindia 2002; Zubiri & Zubiri 2012).

(1) *El chico es **listo**. / La chica es **lista**.*

(‘The boy is smart [masc.].’ / The girl is smart [fem.].’)

(2) *Mutila **azkarra** da. / Neska **azkarra** da.*

(‘The boy is smart.’ / The girl is smart.’)

It is widely known that Basque does not produce grammatical gender agreement (e.g., Euskaltzaindia 1991, 2002, 2021). Contradicting this affirmation, some researchers have claimed the existence of some western Basque varieties that produce Spanish-style gender agreement using *-o* to refer to a masculine antecedent and *-a* to refer to a female antecedent (e.g., Trask 2003; Parafita Couto *et al.* 2015; Padilla-Moyano 2018). Therefore, the situation may be more complex than the affirmation ‘there is no grammatical gender agreement in Basque’ entails. However, no empirical study has been conducted to support one claim or another. Thus, with the aim of exploring the possibility of producing Spanish-style grammatical gender marking in western Basque varieties, the present paper explores production and implicit attitudes gathered from Ondarroa Basque speakers. Ondarroa is a town in the northeast of the province of Bizkaia and the Basque variety spoken in this town forms part of western Basque varieties<sup>3</sup> (Zuazo 2013).

In what follows, information about the (absence of) grammatical gender agreement system in Basque and the town where this study is focused will be introduced, followed by a description of

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<sup>2</sup> In Spanish, gender is an inherent property of nouns and pronouns that affects agreement with various classes of words. When referring to animate beings, gender conveys semantic information because it generally distinguishes the corresponding sex. Spanish uses different methods to indicate this distinction, such as adding a morpheme to the root (*gato* ‘cat [masc.]’ / *gata* ‘cat [fem.]’, *duque* ‘duke [masc.]’ / *duquesa* ‘duchess [fem.]’), showing it through agreement (*el artista* ‘the artist [masc.]’ / *la artista* ‘the artist [fem.]’), or using different stems (*toro* ‘bull’ / *vaca* ‘cow’). For nouns that refer to inanimate entities, there are no firm grammatical principles (RAE and ASALE 2009).

<sup>3</sup> Western Basque “is spoken in Bizkaia, most of the Deba Valley in Gipuzkoa, and the towns of Aramaio and Legutio in Araba” (Zuazo 2013: 37).

the research questions and methodologies. Finally, results for the production and attitudinal data will be presented separately, leading to the final section in which the discussion and conclusions will be introduced.

## 2. Background literature

### 2.1. Grammatical gender agreement in Basque

Basque is a language that does not produce grammatical gender agreement. This is the general claim that has been made in previous years by institutions such as Euskaltzaindia [The Royal Academy of the Basque Language] (e.g., 1991, 2002, 2021), publications on Basque grammar and sociolinguistics (e.g., Laka 1996; Amorrortu 2003; Trask 2003; Zabala & San Martin 2012; Zubiri & Zubiri 2012; Padilla-Moyano 2018; Reguero Ugarte 2024), as well as research studies that have explored how the absence of grammatical gender agreement in Basque affects the production of grammatical gender agreement in the Spanish spoken in the Basque Country (e.g., Gómez Seibane 2008; Munarriz & Parafita Couto 2014; Parafita Couto *et al.* 2015; Badiola & Sande 2018; Pérez-Tattam *et al.* 2019; Basterretxea Santiso 2022, 2024, 2025). The only gender distinction in Basque is produced in the lexicon through heteronyms (Euskaltzaindia 1991, 2002, 2021; Trask 2003; Gómez Seibane 2008; Zubiri & Zubiri 2012): *ama* ‘mother’ and *aita* ‘father,’ *gizon* ‘man’ and *emakume* ‘woman,’ or *seme* ‘son’ and *alaba* ‘daughter.’ In addition, the use of *-sa* suffix also works as a gender distinguisher: during the last years, the use of words like *alkatesa* (‘mayor [fem.]’) have expanded when previously *alkate andrea* (‘female mayor’) would be used (Euskaltzaindia 2021). This is similar to the distinctions between *artzain* (‘shepherd’) and *artzaintsa* (‘shepherdess’) (Gómez Seibane 2008), *jainko* (‘god’) and *jainkosa* (‘goddess’) (Trask 2003; Zubiri & Zubiri 2012), *aktore* (‘actor’) and *aktorea* (‘actress’) (Zabala & San Martin 2012), and *printze* (‘prince’) and *printzesa* (‘princess’) (Zubiri & Zubiri 2012).

One of the aspects that challenges the idea that there is no grammatical gender agreement in Basque is the verb agreement morphemes used with the second-person singular pronoun *hi*, found in some Basque varieties (Euskaltzaindia 1991, 2002, 2021; Alberdi 1995; Laka 1996; Amorrortu 2003; Bereziartua Etxebarria & Muguruza Aseginolaza 2018; Padilla-Moyano 2018). This is “[p]robably the oldest treatment, *hika*, [and it] has the peculiarity of encoding the only old gender distinction in Basque. The gender of the addressee, when singular, is encoded in the verbal form, although the corresponding pronoun is invariable for gender” (Amorrortu 2003: 145). In this case,

*-k* morpheme (also named as *toka*) is used when addressing males as in (3), whereas *-n* morpheme (also named as *noka*) is used when addressing females as in (4) (Alberdi 1995; Bereziartua Etxebarria & Muguruza Aseginolaza 2020; Euskaltzaindia 2021).

(3) *Hik dakik.*<sup>4</sup>

(‘You [masc.] know’)

(4) *Hik dakin.*

(‘You [fem.] know’)

Another aspect that challenges the claim that there is no grammatical gender in Basque is the fact that some western Basque varieties have been described to exhibit Spanish-style gender marking (Trask 2003; Parafita Couto *et al.* 2015; Padilla-Moyano 2018): *-a* is used to express reference to female entities, whereas *-o* is used for males. This is caused for (mis)assuming that *-o* in Basque corresponds to the masculine morpheme and *-a* to the feminine morpheme (Hualde *et al.* 1994; Trask 2003; Gómez Seibane 2008; Parafita Couto *et al.* 2015; Padilla-Moyano 2018; Di Garbo & Miestamo 2019). This phenomenon has been attested to be possible with adjectives derived from Spanish (i.e., *katoliko/a* ‘catholic,’ *majo/a* ‘nice,’ *tonto/a* ‘stupid,’ or *txulo/a* ‘arrogant’) (Euskaltzaindia 1991, 2002, 2021; Laka 1996; Trask 2003; Parafita Couto *et al.* 2015). According to Euskaltzaindia (1991, 2002, 2021), this distinction is a consequence of borrowing words from Spanish and it should not be reproduced in the unified variety of Basque (Euskera Batua). Moreover, other grammars have marked the use of *-a* as in *tonta* as a grammatical mistake and recommend using the *-o* form (i.e., *tonto*) to refer to both male and female referents (e.g., Zubiri & Zubiri 2012). Interestingly, Spanish-style gender marking would not only be possible with adjectives borrowed from Spanish, but also with adjectives that are not borrowed from any language (i.e., *gixajo/a* ‘poor’) (Trask 2003; Gómez Seibane 2008; Parafita Couto *et al.* 2015). This use has been assigned to western Basque varieties and categorized as modern and infrequent (Laka 1996; Trask 2003; Gómez Seibane 2008; Parafita Couto *et al.* 2015). In fact, Trask (2003: 137) asserts that “eastern varieties invariably borrow only the masculine form of a Romance adjective and apply it indiscriminately to both sexes in Basque.” According to our knowledge, Padilla-Moyano (2018) is the only one who contradicts this claim to a certain extent, defending that almost all varieties of Basque (if not all of them) produce Spanish-style gender marking.

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<sup>4</sup> Examples extracted from Alberdi (1995).

In addition to establishing gender differences using *-o* and *-a* in Basque, there are other distinctions such as *tontoa* (‘stupid boy’) vs *tuntuna* (‘stupid girl’), or *gizajoa* (‘poor boy’) vs *gajoa* (‘poor girl’) that are common in Basque (Euskaltzaindia 2002). In order to illustrate the Spanish-style gender marking with adjectives derived from Spanish, on the one hand, publications mainly (and almost only) use the following adjectives: *katoliko/a* ‘catholic,’ *majo/a* ‘nice,’ *tonto/a* ‘stupid,’ *alto/a* ‘tall,’ and *txulo/a* ‘arrogant’ (Euskaltzaindia 1991, 2002, 2021; Trask 2003; Parafita Couto *et al.* 2015; Di Garbo & Miestamo 2019). On the other hand, in order to illustrate Spanish-style gender marking in Basque with adjectives not derived from Spanish, authors have used *gixajo/a* ‘poor’ as the only example (Trask 2003; Gómez Seibane 2008; Parafita Couto *et al.* 2015). Apart from these words, Hualde *et al.* (1994) introduced another list of words derived from Spanish (e.g., *enano/a* ‘dwarf,’ *alumno/a* ‘student’) and lexemes of Basque (e.g., *sorrismo/a* ‘lousy,’ *txotxolo/a* ‘dumb’), when describing the Basque spoken in Lekeitio (a western Basque dialect pertaining to the province of Bizkaia).

The information presented in this section comes from assumptions and generalizations, and no empirical study has been previously conducted to explore the (in)existence of grammatical gender agreement in Basque. Moreover, the list of adjectives provided to illustrate the use of *-o* and *-a* as gender markers in Basque is very limited.

## 2.2. Ondarroa (Bizkaia) & Ondarroa Basque

Ondarroa (belonging to the province of Bizkaia) is a coastal town of 8,195 inhabitants (Eustat 2024). This town was chosen for this study for being one of the areas in which most Basque is spoken: in 2021, 76.6% of Ondarroa inhabitants were classified as Basque speakers, whereas 27.6% of the inhabitants of the province of Bizkaia were classified as Basque speakers (Eustat 2019, 2024). In fact, despite Basque being usually considered as a minority language (see for instance, Marten *et al.* 2012; Van Mensel 2025), it was found to be the majority language of the visual linguistic landscape in Ondarroa (Basterretxea Santiso 2023). The Basque variety spoken in Ondarroa (together with some other western varieties spoken in Bizkaia) has been previously described as separate from the other Basque varieties (Amorrortu 2003). Zuazo (2019: 80) has categorized it (together with other western varieties spoken in coastal Bizkaian towns such as Bermeo, Elantxobe, and Lekeitio) as idiosyncratic and distinct because they have, to a certain extent, been isolated and enclosed with themselves. Their natural point of egress has been towards the sea, and their relations with surrounding places have been less frequent. They are relatively

important centres of population, which has made it easier for them to be more or less linguistically self-sufficient.

Following this description, and assuming that Basque varieties are typically divided into 5 dialects (Zuazo 2013, 2019), Ondarroa Basque belongs to the western dialect. However, as it was mentioned before, this variety has its particularities. For instance, while it has been stated that *-o* [masc.] and *-a* [fem.] could be used to exhibit Romance-style gender agreement in western Basque varieties (e.g., Trask 2003; Gómez Seibane 2008; Parañita Couto *et al.* 2015; Padilla-Moyano 2018), in Ondarroa Basque, these endings are *-u* and *-i* correspondingly. This is “because Bizkaian is characterized by linguistic changes in the final vowel of a stem when the determiner [-a] is added” (Amorrortu 2003: 94):<sup>5</sup> *alaba* + *a* ‘the daughter’ is *alabea* in western Bizkaian, *alabia* in Gipuzkoan Bizkaian, *alabie* in eastern and mid-Bizkaian, and *alabí* in Ondarroa Bizkaian, as observed by Amorrortu (2003). The same phenomenon is observed in Ondarroa Basque with words that end in *-e*, followed by the addition of the determiner *-a*: *kalea* ‘the street’ is *kali*, or *esnea* ‘the milk’ is *esni* (Ondarroako historia zaleak 2005). In reference to the ending *-o* in Basque, when accompanied by the determiner *-a*, *-u* is used in Ondarroa Basque: *usoa* ‘the pigeon’ is *usu*, *asmoa* ‘the intention’ is *asmu*, and *gogoa* ‘the will’ is *gogu* (Ondarroako historia zaleak 2005). Therefore, the corresponding vowels for the *-o* and *-a* endings in other Basque varieties are *-u* and *-i* in Ondarroa Basque, which implies that these would be the possible uses for gender marking in this dialect.<sup>6</sup>

### 3. Research questions

No empirical study has been previously conducted to explore the (in)existence of grammatical gender agreement in Basque, and the list of adjectives provided to illustrate the use of *-o* and *-a* as gender markers in Basque is very limited. To contribute to the discussion on the subject matter, our triangulation study that combines production and attitudinal data answers the following research questions:

1. Does Ondarroa Basque distinguish adjectives depending on the gender of the referent with morphological consequences?

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<sup>5</sup> The following are the 5 main dialects of Basque: Western dialect, Central dialect, Navarrese dialect, Navarrese-Lapuradian dialect, and Zuberoan dialect. For further details on vowel interactions in Basque inflectional morphology, refer, for example, to de Rijk (1970), Hualde and Gaminde (1997), deCastro-Arrazola *et al.* (2015), or Bedialauneta Txurruka and Hualde (2023).

<sup>6</sup> Amorrortu (2003) employs the word “Bizkaian” to refer to western Basque varieties.

- i. If that is the case, is that only possible with adjectives derived from Spanish?
2. What are the implicit attitudes found among Ondarroa Basque speakers towards the use of the feminine morpheme *-i* with female antecedents when compared to the use of *-u* with certain adjectives?

In order to answer these research questions, a triangulation study that combines production and attitudinal data was conducted in 2024. The research methodologies will be introduced below.

## 4. Methodology

### 4.1. Participants

A total of 20 participants from Ondarroa were recruited in 2024 to participate in this study. Through the use of the background questionnaire created by Gondra (2024) specifically for the sociolinguistic context of the Basque Country, participants offered information on their languages, gender, level of education, language of schooling, and profession, among others. Some of that information is presented in Table 1.

**Table 1**  
Participants' background information

Gender		Level of education	
Female	15	High school	1
Male	5	Professional	2
Non-binary	0	Undergraduate	8
		Graduate	9
Total	20	Total	20

The youngest participant in this paper was born in 2004, while the oldest was born in 1990. Their age median is 28.2 years old, so they could be classified as young adults. In addition to coming from Ondarroa, these participants also share some other characteristics: all of them acquired Basque as their first language at home (although 5 participants also mentioned using Spanish at home with at least one of their parents). Furthermore, they all attended the Basque immersion program (known as model D).

## 4.2. Production

The first activity that participants in this research were prompted to complete was a sentence completion task (SCT). This SCT was completed in the local Basque variety of the participants, not in Basque Batua (unified standard variety). Although in sociolinguistics research the ideal scenario is to collect natural occurring speech, the use of surveys is also common when exploring sociolinguistic variation (Schleef 2014; Meyerhoff *et al.* 2015; Drager 2018). Based on Drager’s (2018: 100-101) description, a SCT “involves providing the beginning of a sentence and asking participants to complete the sentence in their own words [...] [S]ome creativity in the design is required to ensure that productions include the variable of interest.” Thus, in order to ensure that participants produced the grammatical aspect that interests this paper, and for consistency purposes, every sentence (included in Appendix 1) started with the demonstrative *hau* ‘this,’ followed by *neski* ‘girl’ or *mutile* ‘boy,’ and then the adjective without the morpheme in which the grammatical gender agreement could be produced. In order to ensure that participants understood the task, they first completed an example sentence with one of the research team members. Thanks to this method, it is possible to gather hypothetical production data by controlling the context. Taking this as the point of departure, the SCT created for this project is composed of a total of sixteen sentences (included in Appendix 1) that are a description of a person, each sentence accompanied by a picture that illustrates the sentence. The distribution and organization of these sentences is introduced in Table 2.

**Table 2**  
Classification of sentences for the SCT

16 sentences			
8 sentences: male antecedent		8 sentences: female antecedent	
Spanish-originated adjectives	4	Spanish-originated adjectives	4
Basque-originated adjectives	4	Basque-originated adjectives	4

As presented on Table 2, the sixteen sentences were divided into 2 groups based on the gender of its antecedents: 8 sentences with a male antecedent (these sentences served as distractors), and 8 sentences with a female antecedent. At the same time, each of the above-mentioned 2 groups were subdivided into 2 other groups: 4 Spanish-originated adjectives and 4 Basque-originated



adjectives respectively. Sentences were presented in random order; same gender or same word were never one after the other. The decision to include words originating in Spanish and Basque is based on the assumption that the gender distinction in Basque is only possible with adjectives originated in Spanish (Euskaltzaindia 1991, 2002; Laka 1996). The following are the Spanish-originated adjectives that were adopted for the SCT: *guapo* ‘handsome,’ *listo* ‘smart,’ *majo* ‘nice,’ and *katoliko* ‘catholic.’ Similarly, 4 adjectives that originated in Basque and that might allow the use of *-o* or *-a* were chosen: *gizajo* ‘poor,’ *totolo* ‘fat,’ *txotxolo* ‘dumb,’ and *lantzoi* ‘stupid.’ In this case, to illustrate grammatical gender marking with adjectives not borrowed from Spanish, scholars have only provided the example of *gizajo/a* ‘poor’ (Trask 2003; Gómez Seibane 2008; Parafita Couto *et al.* 2015). Then, the other 3 adjectives included here were chosen after exploring a number of websites and publications written in Ondarroa Basque, as well as after consulting with Ondarroa Basque speakers. An important difference between Spanish-originated and Basque adjectives included in the SCT needs to be acknowledged: Spanish-originated adjectives are positive or neutral, while Basque adjectives are negative. Considering the list that scholars have offered to illustrate Spanish-style gender marking and after consultation with Ondarroa Basque speakers, no positive/neutral Basque adjective was found that allowed Spanish-style gender marking.

### 4.3. Attitudes

With the aim of gathering systematic implicit attitudinal data (Drager 2018; Loureiro-Rodríguez & Fidan Acar 2022), a written matched-guise test (Lambert *et al.* 1960) was designed and administered to the same participants after the SCT. Following Buchstaller (2006) and Anderson and Toribio (2007), the present study uses the reading mode in the matched-guise test. In this written matched-guise test, participants read a total of 31 guises that were divided into 2 groups, as indicated in Table 3: fifteen sentences with a male antecedent (these sentences served as distractors), and sixteen sentences with a female antecedent. The same adjectives as in the SCT were chosen for this part of the research: 4 adjectives originated in Spanish and 4 Basque adjectives. Since this part of the research is interested in exploring the attitudes towards the use of the feminine morpheme with female referents when compared to masculine morpheme, each of these adjectives were repeated twice in the matched-guise test (as shown in Appendix 2): when using a female antecedent, each adjective was presented using both a masculine morpheme and a feminine morpheme (presented in random order).

**Table 3**  
Classification of sentences for the matched-guise test

31 sentences				
15 sentences: male antecedent		16 sentences: female antecedent		
Spanish-originated adjs	8	Spanish-originated adjs	4 masculine morpheme	4 feminine morpheme
Basque-originated adjs	7	Basque-originated adjs	4 masculine morpheme	4 feminine morpheme

In order to focus participants' attention on the adjectives and the gender of the morphemes in each case, the same sentence structure as in the SCT was used in the written matched-guise test: the demonstrative pronoun *hau* 'this,' followed by *neski* 'girl' or *mutile* 'boy,' adjective, and the verb *re* 'is.' In this case, sentences were not accompanied by pictures, but a practice example was completed by the participants with research team members before starting this part of the project.

After reading each guise, participants were prompted to express their opinion about the person who had written that sentence by using a 6-point semantic differential scale (1 = less; 6 = more) with opposite adjectives (Osgood 1964). The following were the included opposite adjectives/descriptions: *Euskaldun*<sup>7</sup> *barrixe* 'Someone who has not acquired Basque from their parents in their early childhood' vs *Euskaldun zaharra* 'Basque native speaker,'<sup>8</sup> *Ez da oso esaldi naturala* 'Not a very natural sentence' vs *Oso esaldi naturala ra* 'A very natural sentence,' *Euskeri debekatute euaneko pertsoni* 'A person from when Basque was a forbidden language' vs *Euskeraz berba ein leikeneko pertsoni* 'A person from when it is permitted to speak Basque,' *Gaztelerin eraginik ez* 'No effect of Spanish' vs *Gaztelerin eragine bai* 'Effect of Spanish,' *Ikasketa gitxi rauken pertsoni* 'Someone with a low level of education' vs *Ikasketa asko rauken pertsoni* 'Someone with a high level of education,' *Errespetoik baiku* 'Irrespectful' vs *Errespetudune* 'Respectful,' and *Ezta inklusibu* 'Not inclusive' vs *Inklusibu* 'Inclusive.'

Besides asking participants to use the 6-point semantic differential scale to express their attitudes towards the written guises, they were also asked to express whether they would say the

<sup>7</sup> As described by Gondra (2024: 2), "Basque people call themselves *euskaldun*, which comes from *euskera* 'Basque' plus the possessive suffix *-dun/-tun*, meaning 'person who has (knowledge of) the Basque language'."

<sup>8</sup> The definitions of *euskaldun barrixe* and *euskaldun zaharra* are based on Gondra (2024).

guise in an imaginary situation, referring to whether the sentence sounded natural: *yes* vs *no*. Results for this variable are presented in Table 4: it is notable that the majority of participants would not say the sentences that included masculine agreement with a female antecedent. In addition, the only adjectives with feminine agreement that some participants would not say are the negative Basque-originated adjectives.

**Table 4**  
Sentences participants would not say (always with a female referent)

Masculine agreement		Feminine agreement	
<i>gizaju</i>	15 participants	<i>gizaji</i>	4 participants
<i>lantzoi</i>	3 participants	<i>lantzongi</i>	9 participants
<i>totolu</i>	14 participants	<i>totoli</i>	4 participants
<i>txotxolu</i>	15 participants	<i>txotxoli</i>	2 participants
<i>guapu</i>	16 participants	<i>guapi</i>	0 participants
<i>katoliku</i>	16 participants	<i>katoliki</i>	0 participants
<i>listu</i>	16 participants	<i>listi</i>	0 participants
<i>maju</i>	14 participants	<i>maji</i>	0 participants

#### 4.4. Analysis

Results from the SCT were descriptively analyzed, taking into consideration adjectives' origin (Basque vs Spanish). Regarding implicit attitudinal data, a factor analysis was conducted to explore possible interdependencies between the adjectives included in the semantic differential scale (Loewen & Gonulal 2015), following the directions by Bandalos and Boehm-Kaufman (2008). After conducting the factor analysis, descriptive statistics were obtained, followed by ordered logistic regressions and ANOVAs in *R* (R Core Team 2022) with random effects for participants,<sup>9</sup> establishing alpha level in .05, in order to explore the possible impact of two independent

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<sup>9</sup> Future research could consider random effects for sentences, as each sentence contributes more than one datapoint.

predictors: adjectives' origin (Basque vs Spanish), and whether participants think they would say that sentence (yes vs no).

## 5. Results

### 5.1. Production

According to the results obtained from the SCT, every participant used the feminine morpheme with the female antecedent, regardless of the origin of the adjectives (Basque vs Spanish): *gizaji* 'poor,' *totoli* 'fat,' *txotxoli* 'dumb,' *guapi* 'pretty,' *listi* 'smart,' *maji* 'nice,' and *katoliki* 'catholic.' Nevertheless, a different result was observed for the adjective *lantzoi* 'stupid.' Every participant used the default form of the word (*lantzoi*) with the female referent, except for two of the participants who used *lantzongi*. First, this is a very particular adjective that is used in the Basque variety spoken in Ondarroa: originally, it is the name of a fish ('saury') used in the coastal towns of the Basque Country (Euskaltzaindia s.a.), but in Ondarroa Basque it is also used as 'stupid' or 'feckless' (according to the *Ondarruko Hiztegixe* online dictionary of Ondarroan words created by Josu Arrizabalaga Basterretxea, 2025). In addition, *lantzoi* differs from the rest of the adjectives selected for the SCT in that it does not end in *-o*. Once this result was found for *lantzoi* vs *lantzongi*, a small ethnographic work was conducted with the participants included in this study. All participants agreed to have heard both *lantzoi* and *lantzongi* in Ondarroa, but neither the participants who used *lantzoi* nor the ones who used *lantzongi* were able to explain the reason why they chose one rather than the other. In addition, when asked if they knew other words in Ondarroa Basque that might produce a similar distinction of *lantzoi* vs *lantzongi* when talking about a female referent, some mentioned *zontzongu* [masc.] 'stupid' vs *zontzona/zontzongi* [fem.] 'stupid.' According to the *Ondarruko Hiztegixe* dictionary, *zontzona* would be an adjective only used for females, and thus, *zontzongu* and *zontzongi* would be the new forms.

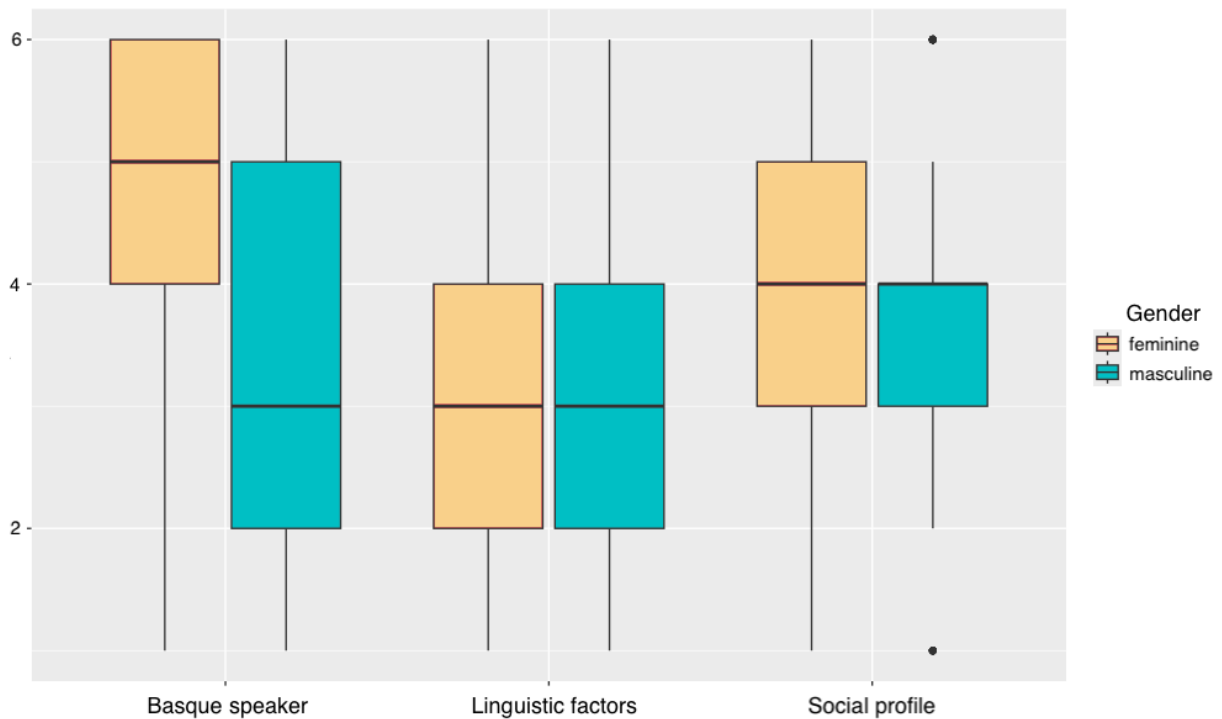
### 5.2. Attitudes

First, considering that the SCT showed that only two participants used the feminine form of *lantzoi*, the scores obtained for *lantzoi* vs *lantzongi* were excluded from the general description of results. Therefore, attitudinal results for *lantzoi* vs *lantzongi* will be introduced separately at the end of this section.

Since it was likely that the adjectives included on the semantic differential scale of the matched-guise test were related, a factor analysis was conducted. Results from this test suggest the existence

of three big factor groups. The first group has been categorized as “Basque speaker” and it loads for the adjectives in reference to being a Basque native speaker, and the sentences sounding (not) natural. The second factor group has been labeled as “Linguistic factors” and it loads for the adjectives in relation to respect, inclusiveness, and effect of Spanish. Finally, the third factor group has been named “Social profile” and it loads for the adjectives referencing speakers’ age and their level of education.

Taking the three big factor groups into consideration, descriptive statistics were calculated for each of them, the dependent variable being the number they chose in the 6-point semantic differential scale (1 = less; 6 = more). The results of descriptive statistics are presented in Figure 1 (excluding *lantzoi* vs *lantzongi*).



**Figure 1**  
Mean Scores for Gender Agreement

According to the participants, and focusing on the “Basque speaker” factor group, the use of the feminine morpheme when referring to a female antecedent sounds more like pertaining to a Basque native speaker and natural (mean = 4.82, SD = 1.36,  $N = 20$ ), when compared to the use of the masculine morpheme with feminine antecedents (mean = 3.19, SD = 1.78,  $N = 20$ ). Then, with

regards to the “Linguistic factors” group, the difference between the two means is almost imperceptible: the use of the masculine morphology with female antecedent is perceived as slightly more respectful, inclusive, and with more influenced by Spanish (mean = 3.42, SD = 1.57,  $N = 20$ ), rather than the use of feminine morpheme (mean = 3.3, SD = 1.63,  $N = 20$ ). Lastly, for the “Social profile” factor group, the use of feminine morpheme with female antecedents is perceived as belonging to a younger and more educated speaker (mean = 3.95, SD = 1.29,  $N = 20$ ), but closely followed by the use of masculine morpheme (mean = 3.8, SD = 1.27,  $N = 20$ ). The perceptions in reference to the “Linguistic factors” and “Social profile” factor groups appear to be somewhat neutral since the mean scores are close to 3.5 (in a 6-point Likert-scale).

Besides descriptive statistics, ordered logistic regressions and ANOVAs were calculated for each factor group in order to explore the possible impact of adjectives’ origin (Basque vs Spanish), and whether the participants would say the sentences that they read (yes vs no).

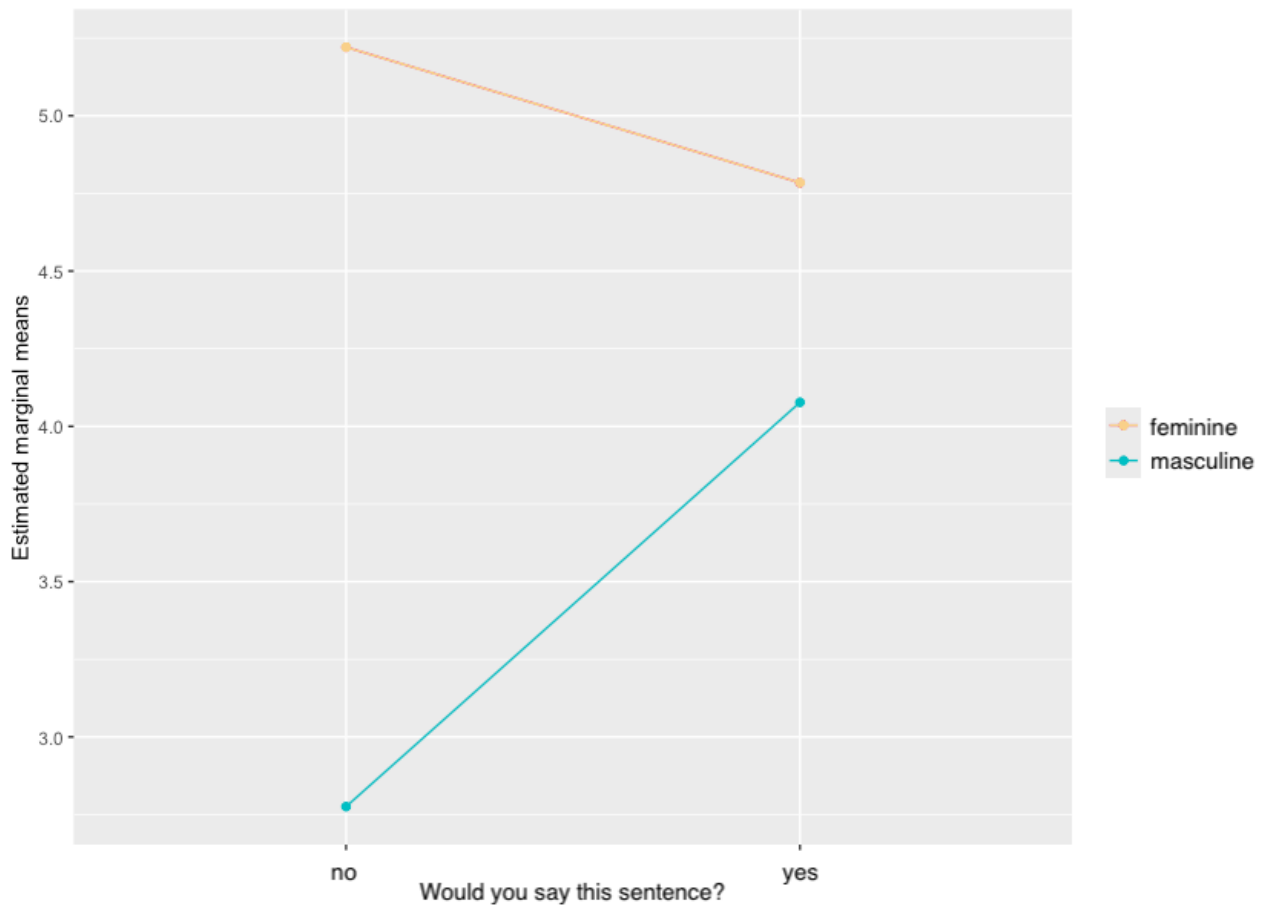
Starting with the “Basque speaker” factor group, results from the ordered logistic regressions with random effects for participants presented in Table 5 indicate the existence of a significant interaction between the gender of the adjective and whether they would say the presented sentences. According to Ferguson’s (2009) standards, this model has more than a moderate effect size ( $R^2 = 0.3725$ ).

**Table 5**  
Final Ordered Logistic Regression Model for “Basque speaker” group

	Estimate	<i>SE</i>	<i>t</i>	<i>p</i>
Adj gender = masc + Would you say it = yes	1.7381	0.3980	4.367	1.51e-05
<i>Non-significant effect: Adjectives’ Origin</i>				

The significant interaction between adjectives’ gender and whether the participants would say the sentence was also confirmed by the ANOVA ( $X^2[1] = 19.0703$ ,  $p = 1.260e-05$ ), and is illustrated by Figure 2. The perceptions regarding the feminine morpheme appear to be similar between participants regardless of whether they would say the sentence or not. Nevertheless, focusing on the use of masculine morpheme with female antecedents, those who would not say that sentence

perceive the use of the masculine morpheme with a feminine antecedent as statistically less natural and less pertaining to a Basque native speaker when compared to those who would say the sentence.



**Figure 2**

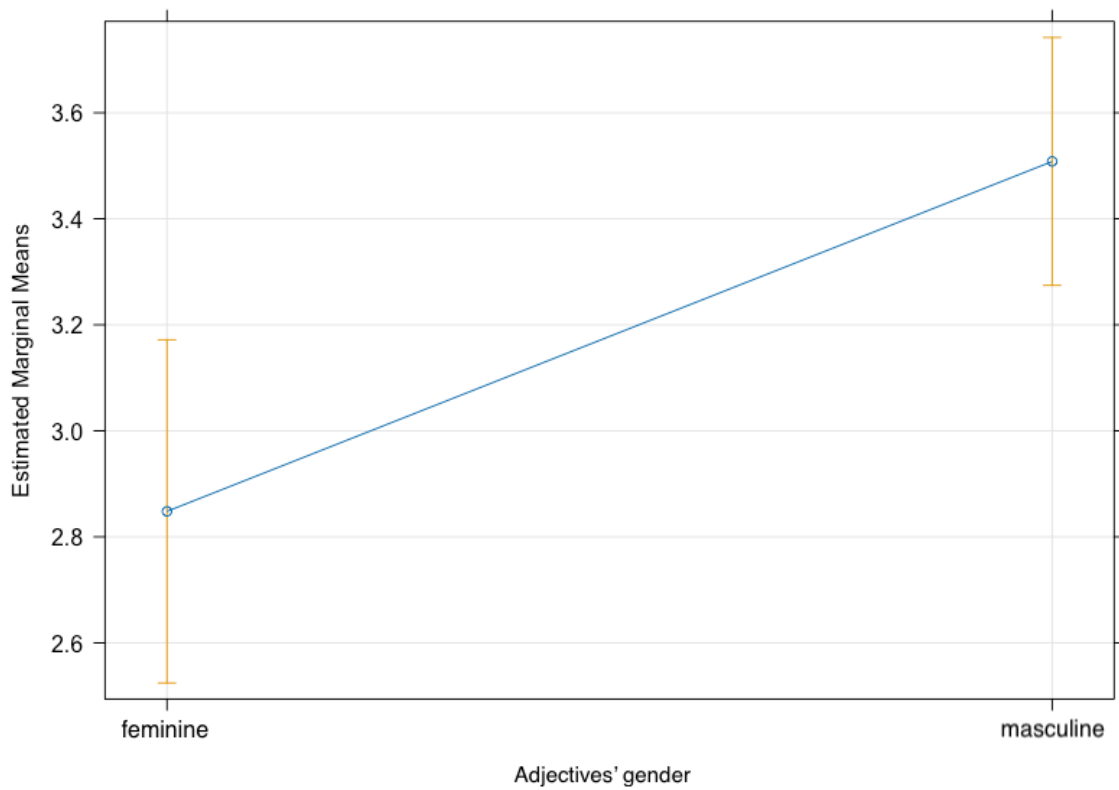
Significant Interaction: Adjectives' Gender \* Would you say the sentence?

Second, results for the “Linguistic factors” group presented in Table 6 indicate the absence of significant interactions between the dependent variable and the two independent variables (adjectives' origin and whether the participants would say the sentences that they read). Nevertheless, there are significant effects for the gender of the adjective and whether participants would say the sentence. This model shows a small effect size ( $R^2 = 0.0825$ ), according to Ferguson (2009).

**Table 6**  
Final Ordered Logistic Regression Model for “Linguistic factors” group

	Estimate	<i>SE</i>	<i>t</i>	<i>p</i>
Adj gender = masc	1.2270	0.3500	3.505	0.0004
Would you say it = yes	1.2558	0.3176	3.953	8.36e-05

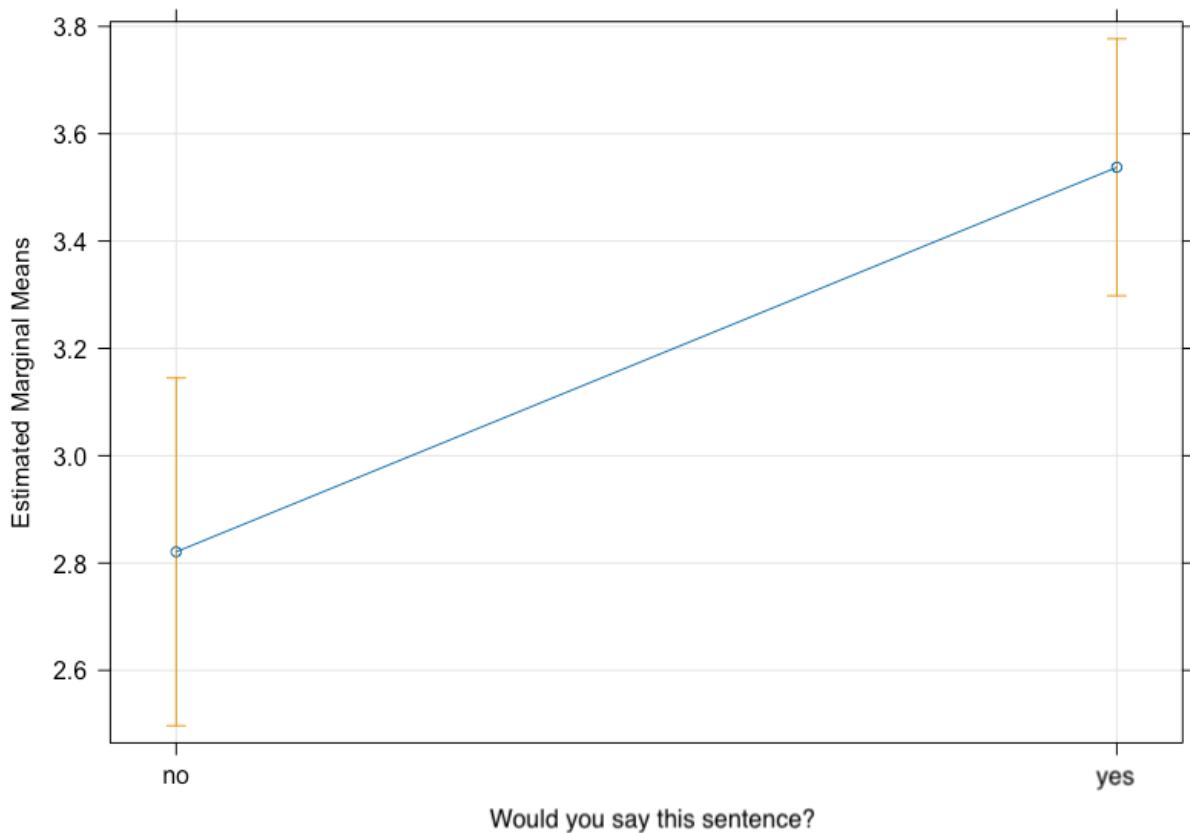
The significant effect of adjectives’ gender was also confirmed by the ANOVA ( $\chi^2[1] = 9.5463$ ,  $p = .002$ ), as illustrated by Figure 3. Therefore, since there is no significant interaction but a significant effect, the use of masculine morphology is seen statistically as more respectful, inclusive and with more effect of Spanish when compared to the use of feminine morphology in general terms.



**Figure 3**  
Significant Effect: Adjectives’ Gender



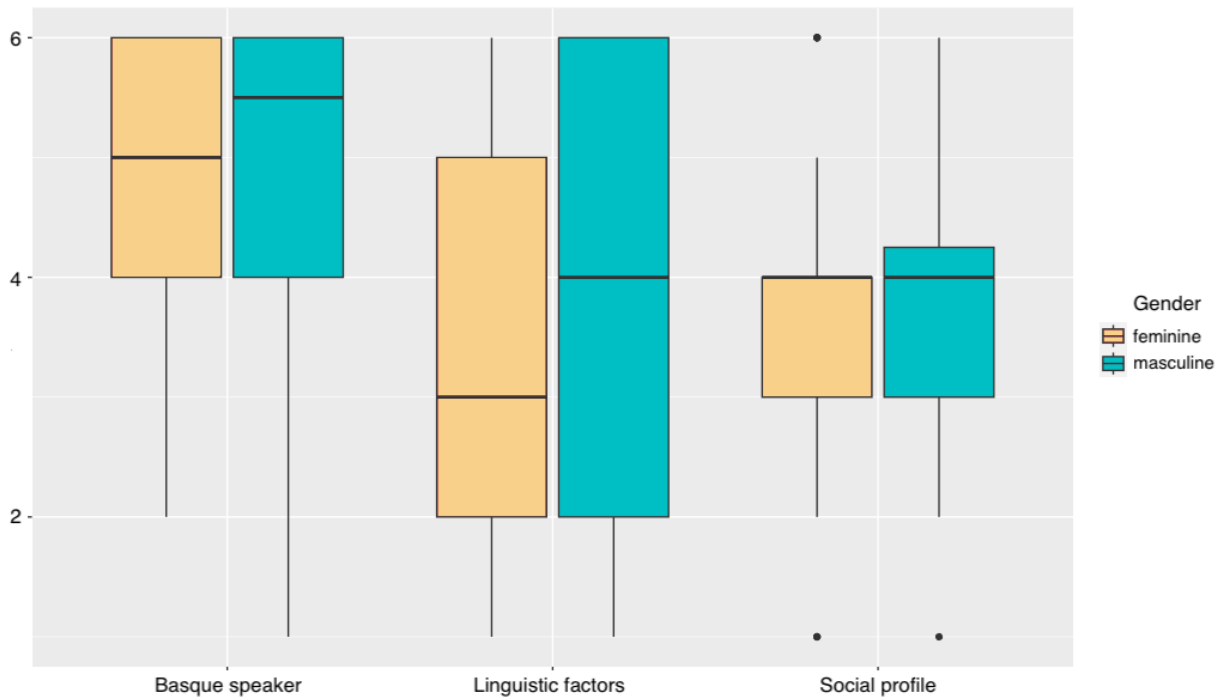
The significant effect for the variable in reference to whether participants would say the sentence, the ANOVA also confirmed the significant effect ( $X^2[1] = 11.0864$ ,  $p = .0008$ ), as illustrated in Figure 4. This significant effect means that participants who would say the sentences evaluate all the guises as statistically more respectful, inclusive, and with more effect of Spanish, regardless of the type of gender agreement produced.



**Figure 4**  
Significant Effect: Would you say the sentence?

For the third factor group, “Social profile,” results from the ordered logistic regressions and ANOVAs indicate that there is no significant effect for any of the two independent variables considered in the project. Therefore, there is no significant difference in reference to the gender morphology when considering speakers as younger or more educated (masculine and feminine morphology equally perceived).

Since a different pattern was found for *lantzoi* in the SCT results presented above, it is worth exploring the particular attitudes towards *lantzoi* vs *lantzongi* specifically, dividing the attitudes into the three factor groups (a factor analysis was conducted again, obtaining the same result): “Basque speaker,” “Linguistic factors,” and “Social profile.” Descriptive statistics were obtained for this distinction and are presented in Figure 5.



**Figure 5**  
Mean Scores for *lantzoi* vs *lantzongi*

Starting with the factor group “Basque speaker,” the masculine form is perceived as slightly more natural and as part of Basque native speakers (mean = 4.97, SD = 1.33,  $N = 20$ ) than the feminine form (mean = 4.72, SD = 1.38,  $N = 20$ ) with a female referent, although according to a paired-sample  $t$ -test, the difference is not significant ( $p = .411$ ;  $df = 77.905$ ; 95% CI = -0.3526, 0.8526). For the “Linguistic factors” group, the use of the masculine form with a female referent is considered as slightly more respectful, inclusive and with more effect of Spanish (mean = 3.75, SD = 1.74,  $N = 20$ ), than the feminine form (mean = 3.45, SD = 1.36,  $N = 20$ ), despite the difference not being statistically significant according to the paired-sample  $t$ -test ( $p = .333$ ;  $df = 117.57$ ; 95% CI = -0.3120, 0.9120). Finally, for the “Social profile” factor group, participants perceive the masculine form with a female referent as belonging to younger and more educated speakers (mean

= 3.88, SD = 1.24,  $N = 20$ ), when compared to the feminine form (mean = 3.52, SD = 1.28,  $N = 20$ ). However, once again, according to the paired-sample  $t$ -test, the difference between both perceptions is statistically not significant ( $p = .218$ ;  $df = 77.935$ ; 95% CI = -0.2120, .09120). Therefore, although only 2 participants employed the *lantzongi* form in the SCT, both the masculine and feminine forms are equally perceived by the same participants. In addition, as introduced in Table 4, only 9 participants expressed that they would not say the sentence with *lantzongi*, but we do not have information about the origin of that decision: based on the form itself or because the adjective is negative.

## 6. Discussion & conclusions

The first research question of the present paper was interested in exploring the possibility of producing Spanish-style grammatical gender agreement in Ondarroa Basque with certain adjectives that end in *-o*. Results from the SCT contradict the general assumption that there is no grammatical gender agreement in Basque (e.g., Euskaltzaindia 1991, 2002; Laka 1996; Trask 2003; Gómez Seibane 2008; Parafita Couto *et al.* 2015; Padilla-Moyano 2018; Reguero Ugarte 2024). Or at least, that is not the case in Ondarroa Basque. Moreover, the assumption that gender agreement in Basque is only possible with adjectives borrowed from Spanish is also contradicted by the results obtained from the SCT (e.g., Laka 1996; Trask 2003; Parafita Couto *et al.* 2015): participants not only produced grammatical gender agreement with adjectives borrowed from Spanish (*guapi* ‘pretty,’ *listi* ‘smart,’ *maji* ‘nice,’ and *katoliki* ‘catholic’), but also with adjectives that were not borrowed from Spanish (*gizaji* ‘poor,’ *totoli* ‘fat,’ and *txotxoli* ‘dumb’). Some scholars (e.g., Trask 2003; Gómez Seibane 2008; Padilla-Moyano 2018) had already mentioned the possibility of producing Spanish-style gender distinction in words such as *gixajo* by western Basque speakers for having (mis)assumed that *-o* corresponds to masculine gender in Basque and *-a* to the feminine gender. However, this phenomenon has been categorized as minimal and belonging to oral production (e.g., Laka 1996; Gómez Seibane 2008). Indeed, as it was earlier mentioned, *gixajo* is the only example introduced by previous scholars to illustrate this phenomenon. Nevertheless, participants also used the feminine morpheme with *totolo* and *txotxolo*, but not with *lantzoi* (this may be because this word does not end in *-o*; however, two participants used the innovative feminine form *lantzongi*, and both *lantzoi* and *lantzongi* were equally perceived when used with female referents).

Then, despite the data in this project being limited to Ondarroa Basque and conclusions should not yet be drawn and applied to every variety of Basque, our findings disprove the general belief that western Basque has no grammatical gender and that Spanish-style gender agreement is only possible with adjectives originating in Spanish. Instead, grammatical gender agreement might be more complex than anticipated and, following Di Garbo and Miestamo's (2019) terminology (for instance, when describing gender agreement in Lekeitio Basque, or in Chamorro [Austronesian language] and Shumcho [Sino-Tibetan language]), gender marking would be 'conditional' instead of 'absolute.' Then, adjectives in Ondarroa Basque could be divided at least into 3 different groups depending on the possibility of (not) producing grammatical gender agreement:

- Group 1: adjectives derived from Spanish do produce grammatical gender agreement as in *feo/a* 'ugly,' *guapo/a* 'handsome,' *katoliko/a* 'catholic,' *konfliktibo/a* 'problematic,' *listo/a* 'smart,' *majo/a* 'nice,' *parrandero/a* 'party animal,' *moreno/a* 'dark-haired,' *ofendido/a* 'victim,' *pelmo/a* 'annoying,' *sinpatiko/a* 'kind,' *tonto/a* 'stupid.'
- Group 2: Basque adjectives ending in *-o* offer the possibility of producing Romance-style grammatical gender agreement for (mis)understanding that *-o* is the masculine marker as in *gizajo/a* 'poor,' *larrizto/a* 'disgusting,' *potxolo/a* 'plump,' *totolo/a* 'fat,' *txotxolo/a* 'dumb.' However, there are also other Basque adjectives ending in *-o* that do not offer this possibility: *babo* 'stupid,' *goxo* 'sweet,' *geldo* 'inactive,' and *zoro* 'crazy.'
- Group 3: although adjectives that form part of this group were not included in this project because they have not been shown to produce sex-based gender marking, Basque adjectives that do not end in *-o* apparently do not offer the possibility of producing grammatical gender agreement as in *handi* 'big,' *txiki* 'small,' *polit* 'pretty,' *itsusi* 'ugly,' *ahul* 'weak,' *azkar* 'intelligent,' (with some innovative exceptions: *lantzoi* vs *lantzongi*, and *zontzongu* vs *zontzona/zontzongi*).

The second research question of this paper aimed to discover the implicit attitudes indexed by Basque speakers towards the use of feminine gender agreement with female referents, compared to the use of masculine gender agreement with female referents. According to the results, and focusing on the "Basque speaker" factor group, speakers of Ondarroa Basque perceive the use of the feminine morpheme with female antecedents as an inherent and natural feature of Basque, regardless of whether the adjectives are of Spanish or Basque origin (also considering that Spanish adjectives were positive/neutral while Basque adjectives were negative). Similarly, with regards to

the “Social profile” factor group, participants were shown to perceive the use of feminine gender with female referents as part of young and educated community members, which may imply that this is a linguistic phenomenon that receives linguistic prestige to a certain extent, although more research is necessary to confirm this. Nevertheless, results for the “Linguistic factors” group are more complicated to interpret because participants considered both the use of feminine and masculine morphemes with the female referent as inclusive and respectful. In this case, we acknowledge that the opposite adjectives employed in the semantic differential scale (respect, inclusiveness, and effect of Spanish) could have been interpreted differently by the authors and participants of the project.

Hence, by combining production and attitudinal data coming from Ondarroa Basque (western Basque variety), we can defend that the grammatical gender agreement system is part of these speakers’ Basque grammar. In addition, this triangulation shows that grammatical gender agreement production is not rejected but instead considered as natural and belonging to the speech of Basque speakers. Consequently, the general claim that Basque has no grammatical gender agreement would not apply to the young adults of the variety explored in this project.

Since this project is focused only on Ondarroa Basque, future research should include speakers of other Basque varieties in order to confirm the results presented in this paper, and the contact between Basque and French should also be considered to explore whether the varieties of Basque that are in contact with French also produce gender agreement. In addition, other linguistic profiles and age groups need to be included in the analysis, for instance, to see whether this is a change in progress (this is possibly what is happening with *lantzoi* vs *lantzongi*) or rather an established feature of (Ondarroa) Basque. Finally, there is a need to explore more data to further support the results and conclusions gathered in this project also including other research methods (e.g., spontaneous speech, individual and group interviews on attitudes).

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## Appendix 1: Sentence completion task guises

### Female antecedent

1. *Hau neski gizaj...* ‘This girl is poor’
2. *Hau neski katoli...* ‘This girl is catholic’
3. *Hau neski toto...* ‘This girl is fat’
4. *Hau neski txotxo...* ‘This girl is dumb’
5. *Hau neski maj...* ‘This girl is nice’
6. *Hau neski lantzo...* ‘This girl is stupid’
7. *Hau neski gua...* ‘This girl is pretty’
8. *Hau neski lis...* ‘This girl is smart’

Masculine antecedent (distractors)

1. *Hau mutile gizaj...* ‘This boy is poor’
2. *Hau mutile katoli...* ‘This boy is catholic’
3. *Hau mutile toto...* ‘This boy is fat’
4. *Hau mutile txotxo...* ‘This boy is dumb’
5. *Hau mutile maj...* ‘This boy is nice’
6. *Hau mutile lantzo...* ‘This boy is stupid’
7. *Hau mutile gua...* ‘This boy is pretty’
8. *Hau mutile lis...* ‘This boy is smart’

**Appendix 2: Written matched-guise task guises**

Female antecedent

1. *Hau neski gizaji re.* ‘This girl is poor [fem.]’
2. *Hau neski gizaju re.* ‘This girl is poor [masc.]’
3. *Hau neski katoliki re.* ‘This girl is catholic [fem.]’
4. *Hau neski katoliku re.* ‘This girl is catholic [masc.]’
5. *Hau neski totoli re.* ‘This girl is fat [fem.]’
6. *Hau neski totolu re.* ‘This girl is fat [masc.]’
7. *Hau neski txotxoli re.* ‘This girl is dumb [fem.]’
8. *Hau neski txotxolu re.* ‘This girl is dumb [masc.]’
9. *Hau neski maji re.* ‘This girl is nice [fem.]’
10. *Hau neski maju re.* ‘This girl is nice [masc.]’
11. *Hau neski lantzongi re.* ‘This girl is stupid [fem.]’
12. *Hau neski lantzoi re.* ‘This girl is stupid [masc.]’
13. *Hau neski guapi re.* ‘This girl is pretty [fem.]’
14. *Hau neski guapu re.* ‘This girl is pretty [masc.]’
15. *Hau neski listi re.* ‘This girl is smart [fem.]’
16. *Hau neski listu re.* ‘This girl is smart [masc.]’

Masculine antecedent (distractors)

1. *Hau mutile guapu re.* ‘This boy is handsome’
2. *Hau mutile sinpatiku re.* ‘This boy is kind’

3. *Hau mutile katoliku re.* ‘This boy is catholic’
4. *Hau mutile morenu re.* ‘This boy is dark-haired’
5. *Hau mutile listu re.* ‘This boy is smart’
6. *Hau mutile rubixu re.* ‘This boy is blond’
7. *Hau mutile maju re.* ‘This boy is nice’
8. *Hau mutile konfliktibu re.* ‘This boy is problematic’
9. *Hau mutile gizaju re.* ‘This boy is poor’
10. *Hau mutile parranderu re.* ‘This boy is a party animal’
11. *Hau mutile totolu re.* ‘This boy is fat’
12. *Hau mutile farreru re.* ‘This boy is a party-going’
13. *Hau mutile txotxolu re.* ‘This boy is dumb’
14. *Hau mutile feu re.* ‘This boy is ugly’
15. *Hau mutile lantzoi re.* ‘This boy is stupid’