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# Language biases and implicit attitudes among university students in Galicia (Spain)<sup>1</sup>

Pedro Álvarez-Mosquera; Alejandro Marín-Gutiérrez and Ana Iglesias Álvarez

Department of English Studies, Universidad de Salamanca, Salamanca, Spain;  
Department of Linguistics and Modern Language, University of South Africa, Pretoria, South Africa;

Faculty of Education and Psychology, Universidad del Atlántico Medio, Las Palmas de Gran Canaria, Spain;

Department of Galician and Latin Studies, Universidade de Vigo, Vigo, Spain.

## ABSTRACT

This study aims to contribute to the ongoing debate on the role of language attitudes in Galicia (Spain). By means of a mixed methodological approach, we investigate the interrelation between 168 university students' Implicit Association Test (IAT) results towards Galician Spanish (GS) and Traditional Galician (TG), and their socio-linguistic background. The study found complex interrelations of various factors. *Family language* and *everyday language* appeared to play a prominent role in determining the implicit language attitudes towards both languages. *Proficiency in Galician* was the only other factor that significantly contributed to the development of positive attitudes towards TG, while having Spanish as the L-1 was identified as a key factor in the formation of positive attitudes towards GS. Unlike previous research on explicit attitudes, *place of living* (rural vs urban) is not associated with (implicit) language attitude formation. Notably, *political orientation* arises as a relevant factor that should be addressed in future research.

## KEYWORDS

IMPLICIT ASSOCIATION TEST, LANGUAGE ATTITUDES, GALICIAN, SPANISH, BILINGUALISM, BIAS

## INTRODUCTION

Galicia is one of the autonomous communities (regions) in Spain with two official languages, Galician and Spanish (Castilian). However, Spanish is the only official language in the entire state and the only one explicitly cited in the Spanish Constitution (1978), which inherently implies a level of legal inequity. Galician did not acquire the status of co-official language in Galicia until the approval of the Galician Statute of Autonomy in 1981. The transition to democracy in the late 1970s and early 80s meant a radical change in terms of the treatment of linguistic diversity in Spain. This change was

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not only at the legislative level, but also in practice, with the introduction of languages other than Spanish in the educational system, administration, politics, among other areas. These changes were applied with different intensity and at different rates depending on the community/region.

At the earliest stages of the democratic period, Galicia was the community in Spain with the highest percentages of use and oral competences of its own language (Siguán Soler, 1994) and, therefore, with the best starting point at a quantitative level for its normalization. In fact, Spanish, introduced from the 15th century onwards through the upper social classes, was always clearly a minority language. The process of substitution of Galician by Spanish did not reach quantitative relevance until the 1960s, due to late industrialization and urbanization, the generalization of compulsory education, and the spread of mass media. All of these socio-economic phenomena were exclusively conveyed in the language of the state, which was thus gradually imposing itself on Galician. In addition to this, the linguistic imposition exerted by the Franco dictatorship, with numerous laws that banned any language in Spain other than Spanish, further exacerbated this process (Costas, 2009; Monteagudo, 2021). As reflected in the latest statistical data (IGE, 2018), today, those who declare to always speak Galician or speak more Galician than Spanish are almost equal to the percentage of Spanish speakers (51.8% versus 47.35% respectively), a figure that has dropped ten points since the beginning of the century (61.2% of Galician speakers in 2003). In other words, the normalization process carried out in Galicia did not manage to reverse, or even stop, the linguistic substitution of Galician for Spanish.

Hence, we find a fairly generalised consensus among Galician sociolinguistics about the failure of the language policy implemented from the public institutions (Monteagudo, 2019; Ramallo & Vázquez, 2020, among others). Described as *low intensity*, the current language policy appears to prioritise a theoretical *linguistic peace* or "harmonic bilingualism" (Lorenzo Suárez, 2005, p.44) – as stated by the government – in that it aims to avoid conflict. In practice, data indicate that this official position can be also regarded as an exercise to conceal the process of linguistic substitution of Galician by Spanish that has taken place for centuries and that endures in the current democratic period. This situation clearly diverges from what happened in other communities in Spain, such as Catalonia, where, for example, the number of neo-speakers is much higher than in Galicia (O'Rourke & Nandi, 2019; Pujolar & Puigdevall, 2015) or in the Basque Country (Goirigolzarri, Amorrortu, Ortega, 2019).

Moving onto the emergence and subsequent determinant role of language attitudes, the main problem of the Galician language lies in the prejudices that formed around it when Spanish entered Galicia at the hands of the upper classes. The social classes, which consisted of both the nobility and the clergy, were largely from other regions and were opposed to learning Galician. Thus, Spanish speakers represented power, education and wealth, while Galician speakers represented the poor and uneducated majority of society (Mariño Paz, 1998; Monteagudo, 1999). Despite their numerical superiority,

research shows that the image associated with the economic and cultural profile of each group extended to the language, playing a crucial role in the formation of language attitudes (Garret, 2010; Collins & Clément, 2012; Shulman, et al., 2011). These social constructs around the two language groups were further linked to specific geographical contexts, since the (Spanish) upper classes were located in the cities, while the (Galician) lower classes were in rural areas (RAG, 1995, 2008).

The profound implications of this polarised linguistic scenario led some of the very first sociolinguistic research work done in the region to include the study of linguistic attitudes. However, in most cases, this research was done with a quantitative and self-reported approach. In this sense, Galicia presents an unparalleled research trajectory in Spain (and even Europe), both for the size of the sample and for the exhaustive nature of the questionnaire used. More specifically, *The Sociolinguistic Map of Galicia*, presented in three volumes by the Sociolinguistic Seminar of the Royal Galician Academy (RAG), together with regular updates of data from the Galician Institute of Statistics (IGE in Galician), have been providing detailed linguistic descriptions of this region for decades. The first volume is dedicated to L-1 and competence (RAG, 1994, 2007), the second one to language uses (RAG, 1995, 2008), and the third to attitudes (RAG, 1996, 2011). The main conclusion reached by these and other studies which focused on specific population groups, especially in the educational field, was contradictory. In particular, while an improvement in attitudes towards Galician was detected as age decreased, the level of linguistic use evolved in the opposite direction, that is to say, the number of Galician speakers increased in direct proportion to age. Thus, this creates a new prejudice that associates the Galician language with older people, distancing this language from the values representative of modernity in the social imaginary.

This apparent mismatch between linguistic attitudes and behaviours has received limited academic research attention, despite its importance as a potential predictor of explicit behaviour, language change, and consequently, its implications in terms of language planning. In order to explain the attitude-use divergence, Galician sociolinguistics focused mostly on methodological issues, since, as we have already mentioned, linguistic attitudes had been traditionally studied by means of questionnaires through self-reported information. Based on the idea that informants' testimonies would allow implicit attitudes to emerge to a greater extent, there was a new focus on qualitative studies carried out by means of discussion group techniques or in-depth interviews (Iglesias, 2002; Kabatek, 2000; RAG, 2003). Indeed, these results showed more negative attitudes than those collected through surveys, questioning again the direct attitude-behaviour relationship (Iglesias, 2002). These are in line with theoretical formulations from social psychology (Garret, 2010; Satraki, 2019), which underline that a speaker's behaviour does not depend only on the attitudinal level, but also on other factors such as social habits or competences, as well as contextual circumstances.

In any case, specific research on language attitudes is somehow scarce in Galicia (Formoso Gosende, 2013; Rodríguez Carnota, 2022) and it is still primarily focused on the study of self-reported attitudes, that is, conscious, carried out by means of qualitative methodology. We can also acknowledge specialised studies on *new speakers* or *family language policy* which also cover language attitudes here (Iglesias & Virginia, 2022; O'Rourke & Nandi, 2019). In an attempt to access implicit attitudes, the *matched-guise technique* (MGT) was seldom used. Defined by its authors (RAG, 2003: 19; see also Loureiro-Rodríguez et al., 2012) as an alternative method of measuring linguistic attitudes in an indirect and less obstructive way than the direct measurement questionnaires, it presents other limitations. Although it is true that the informants are unaware that they are assessing the languages used by the *masks*, this technique still captures the evaluation of social stereotypes, and consequently, new declared attitudes that act on a *deliberated* level (see also Garret, 2010, pp. 57-59 for other limitations). Another common characteristic in these studies is the profile of the target population; in all cases they are younger age groups, and specifically non-university students. As we have already mentioned, age, together with the place of living (rural vs urban), are the two variables that, to a greater extent, explain the linguistic distribution in Galicia. Research shows that those over 65 years old choose predominantly the options "Only in Galician" or "Mostly in Galician" (73.39%) versus those under 14 years old who do so less (26.12%) in favour of Spanish. The same occurs if we contrast the most rural areas (less than 10,000 inhabitants) with the most urban areas (the only seven cities with more than 50,000 inhabitants). In this case the difference is even greater (more than 50 points): 81.15% of Galician speakers in the rural context, compared to 24.91% in the urban context (IGE, 2018).

Therefore, even though we assume that language uses do not depend exclusively on language attitudes, we consider it of great importance to further investigate linguistic attitudes in Galicia in order to find potential reasons behind the disaffection of the urban population towards Galician; a tendency that has also been accentuated with the passing of generations in other contexts (RAG, 2008: 68, Figure 2.29). In addition, we find it central to explore other methodological avenues that allow us to study implicit attitudes, as have already been done in other disciplines, including sociolinguistic studies. Thus, methodologically speaking, this study also seeks to advance the investigation of language attitudes in Galicia by moving away from direct elicitation of language attitudes (Formanowicz & Suitner, 2020; Ianos et al. 2020; Paladino & Mazzurega, 2020). To be more exact, our approach involves the use of a customized version of Implicit Association Test (IAT) (Greenwald et al., 1998) that integrates audio excerpts uttered in Galician Spanish (GS) and Traditional Galician (TG) to measure participants' implicit bias towards them (see *IAT Design* below). In addition, to investigate how participants' sociolinguistic background interrelates with the language biases, this contextually relevant version of IAT was used in conjunction with a post-IAT survey. With this approach, we seek to make a relevant contribution towards corroborating

whether the existing linguistic prejudices towards Galician have actually been overcome, as surveys and – to a lesser extent – qualitative research seemed to show.

## METHODOLOGY

### *IAT and language biases*

In recent years, studies based on implicit measures of the individual's nonconscious biases towards social groups have continued to expand both in the field of social psychology and other interrelated areas. As discussed in previous studies (Álvarez-Mosquera and Marín-Gutiérrez, 2018; Deme et al., 2017; Rosseel & Grondelaers, 2019), the Implicit Association Test (IAT; Greenwald, et al., 1998) is one of the tools that has contributed to expanding traditional approaches to gathering language perception data. As a matter of fact, IAT measures the strength of associations between concepts (e.g. language) and evaluations (e.g. positive, negative) or stereotypes (e.g. kind, rude). Of central relevance to our approach, language indexicality can effectively retrieve associated stereotypical information of the speakers at a social level (Campbell-Kibler, 2012). Thus, in using audio stimuli in IAT, we can investigate if individuals transfer certain characteristics associated with a specific social group to the language variety they use (Álvarez-Mosquera and Marín-Gutiérrez, 2021a; Ianos et al., 2020; Mauchand & Pell, 2022; Pantos & Perkins, 2013; among others).

While the use of IAT has drawn criticism (Azar, 2008; Blanton et al., 2009; Lynott & Connell, 2012), growing evidence continues to underline its effectiveness as long as the researcher understands what exactly is being measured (see *IAT design*). In this vein, it is important to highlight that implicit and explicit attitudes could converge or diverge as what is being measured and the methodology itself have little in common. Unlike in explicit attitude assessments, participants do not make deliberate decisions about their outputs. Implicit evaluation mirrors accumulated experience which we may not be aware of, may not be wanted or endorsed but, very importantly, “is still attitudinal because it can potentially influence our individual perception, judgement, or action” (Nosek, 2007, p. 68, see also Banaji et al., 2004). In line with this idea, Kurdi et al. (2019) assert that implicit attitudes and implicit beliefs are intrinsically intertwined, owing to the shared evaluative content present in both. Thus, the present study argues that investigating implicit language attitudes in the Galician context is central in order to advance methodologically and academically in this area of studies.

### *IAT Design*

IAT has been successfully used for sociolinguistic purposes in a growing number of language contexts. This tool enables the association of audio inputs (accents or languages) with positive and negative social traits while recording participants' reaction times in order to establish their implicit bias towards the provided inputs. As explained above, this is possible due to the fact that the indexical nature of the audio stimuli triggers measurable automatic reactions derived from automatic mental operations that result from participants' experiences (e.g. language exposure) along their life span (Kurdi et al., 2019; Pantos & Perkins, 2013). Keeping in mind its psychometrical control, statistical power, and psychometric qualities (Bosson et al., 2000; Nosek et al.,

2007; Teige et al., 2004), the IAT design for this case study was programmed with OpenSesame (Mathôt et al., 2012; Mathôt & March, 2022) in order to present the audio clips and social traits to participants and subsequently record their responses and reaction times (see Álvarez-Mosquera, 2019; Álvarez-Mosquera and Marín-Gutiérrez, 2021a). Our model incorporated Galician Spanish (GS) and Traditional Galician (TG)<sup>2</sup>. Seven pre-tested neutral sentences in each of the selected language varieties (14 in total) were used. Consistent with previous research (see Álvarez-Mosquera and Marín-Gutiérrez, 2018, 2021a, 2021b), the two female speakers of these seven sentences share common traits including belonging to the same age group and having a similar (educated) social background, with the prototypical features of their language group. For sociolinguistic reasons, audio recordings were not normalised as this process could affect the indexicality of the selected varieties and, consequently, participants' responses. While researchers are aware that other prosodic features could potentially interfere on the receivers' end, efforts were made to keep them as representative as possible of both language groups.

Unlike the audio inputs, social traits were presented as textual input (words). Following the standard IAT procedures, each variety was eventually associated with clearly positive social traits (e.g. funny, interesting, happy, etc.) and clearly negative social ones (e.g. boring, useless, sad, etc.). To guarantee well-controlled research, and although linguistic stimuli typically used in several previous studies were considered (RAG, 2003), all selected terms were eventually obtained from the *B-Pal* database (Davis & Perea, 2005), and tested for frequency, valence and familiarity.

Continuing with the specifics of this design, every participant was given five sets of stimuli to categorize using a computer with headphones. The first two sets, Block 1 (sorting traits) and Block 2 (sorting audios) were used for training purposes. In these blocks, participants were instructed to categorise the stimuli in isolation as fast as possible. Block 3, however, was the first measurement block. Here participants found one of the language varieties paired with *bad* (negative) social traits by assigning both categories to the same response key, and the second one paired with *good* (positive) traits by means of another response key. In Block 4, the order of the two language varieties was switched, and this served as the re-training phase. Following this, in Block 5 (measurement block), the participants were presented with the opposite association of traits and audios. With this design, if the mapping of any of these two language varieties of Galicia is in line with one of the types of social traits (positive or negative) ascribed

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<sup>2</sup> Phonetically speaking, these varieties represent the two extremes of the Galician-Spanish continuum (Regueira & Fernández Rei, 2020). Traditional Galician (TG), on the one hand, is the variety of Galician that is described as "popular Galician" (Dubert, 2002; Regueira, 2019) or "traditional" (Aguete, 2020; Regueira, 2019) in the specialised literature and is typically associated with speakers from rural contexts. On the other hand, Galician Spanish (GS) is the variety of Spanish least close to the first one and more similar to the standard variety of Spanish. This variety is increasingly widespread, especially among the young urban population (Regueira & Fernández, 2020). One of the main differences lies in the mid vowels. TG presents a clear distinction between high and low vowels (Regueira & Fernández, 2020) and is one of the features that we included in the selected auditory stimuli. For consonants, we sought the occurrence of velar nasal consonants and the postalveolar sibilant fricative, also differential features of Galician with respect to Spanish (Regueira, 2019). Otherwise, at the morphosyntactic and lexical levels, we followed the standard of each of the languages.

by the participants, shorter response latencies will be recorded in IAT. Conversely, if the mapping of the two categories does not align, longer latencies will be observed (see Álvarez-Mosquera 2019; Álvarez-Mosquera and Marín-Gutiérrez 2018, 2021a, 2021b).

Different from previous studies in this field, researchers have developed and used the same IAT model in two different languages targeted to the same social sample: bilingual<sup>3</sup> college students in the University of Vigo's campus located in Ourense. The methodological implications of this approach will be explored in Marín-Gutiérrez, et al. (submitted for publication). Each participant completed the IAT tasks and the subsequent survey under the same conditions. More specifically, they used the same computer located in an independent research space with no other computers or users given access to this room during testing (see more details in *Participants*).

In this study, and based on the socio-historical facts presented in the introduction, we postulate that positive bias towards GS will persist among members of the target group in both designs (hypothesis 1). In other words, when GS was associated with positive traits and TG with negative ones was considered the *congruent/expected* condition in both experiments. Likewise, the *incongruent/unexpected* condition is presented when the reverse association takes place also in both versions of the IAT. Furthermore, this study considers sociolinguistic variables that are relevant to the context (see next section). These variables are expected to provide an explanation for the biases detected in the experiment (hypothesis 2) (see Álvarez-Mosquera and Marín-Gutiérrez, 2021a, 2021b, among others).

#### *Post-IAT survey*

In order to investigate the interrelation between participants' language biases and their sociolinguistic background, a sociolinguistic survey was administered after the completion of the IAT. More specifically, besides keeping track of basic demographic data (e.g. gender and age), we registered their L-1, family language(s), place of origin (degree of urbanization<sup>4</sup>), habitual language, language competences in both varieties, among other context-relevant information (e.g. political orientation). Finally, additional specifications were given when requested.

#### *Participants*

As stated, this research study took place at the University of Vigo's campus in Ourense (*As Lagoas* site) in February 2022. With more than 4,000 students in this medium-size city (Portal de transparencia da Universidade de Vigo, 2022), bilingual participants from

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<sup>3</sup> Although the term *bilingual* can present identity, origin, identification and contextual implications (Eisenchlas & Schalley, 2020), in this study it is broadly understood as any person who has basic knowledge of a second language.

<sup>4</sup> Answers for *place of birth and residence*, as well as the years spent in each of them (in case they were different), were coded on a scale from most to least urbanised, according to the population data provided by the Revised Municipal Register (INE, 2021).

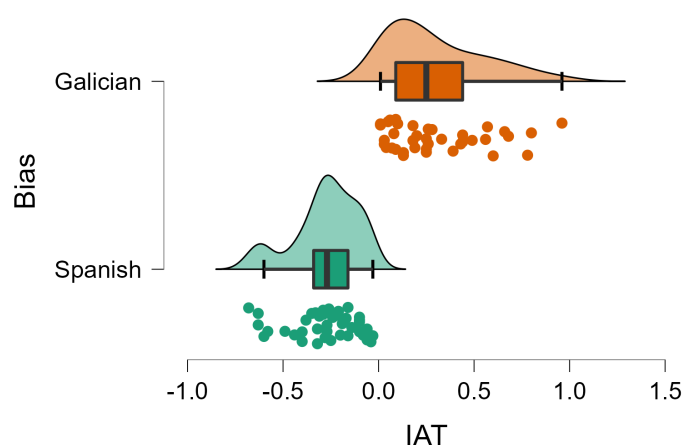


various degree programmes were recruited by means of several calls for participation through different university forums and announcements. Additionally, some participants were approached on campus and agreed to participate voluntarily. The research space, located in one of the main buildings, allowed participants to walk into the venue when available. Participants were welcomed and kindly asked to identify their habitual language. Then, the (bilingual) researcher matched the identified language (Galician or Spanish) to provide general instructions and randomly assigned them to one of the two versions of IAT. A total of 177 students participated in this study. Six participants were excluded because of their age group and/or long periods of time living out of Galicia. Three other participants were removed from the sample due to problems/errors in the experimental procedure. Results were calculated out of the remaining 168 participants (ages: 18-27 years old; mean age = 20.08). More specifically, the Galician version of IAT was taken by 81 participants (58 females and 23 males), while the Spanish version was completed by 87 participants (63 females and 24 males). From a linguistic viewpoint, the ratio of L-1 Galician speakers and L-1 Spanish speakers (40% and 60% approximately) was quite balanced in both versions.

## Results

### *Galician version*

According to the hypothesis of this study, the first step in the analysis process was to establish the effect of the bias in the IAT scores. To do so, we performed a *t test* comparing the main effect of bias in the participants' IAT scores in the Galician version of IAT. The *t test* revealed a main effect of incongruency where the participants showed higher mean scores in the Galician language (TG) ( $M = 2.99$ ) regarding to the congruent condition (i. e. the Spanish language, GS) ( $M = -2.76$ ),  $t(79) = -12,134$ ,  $p = 0.001$ ). That is, participants showed a positive bias towards Galician (incongruent) rather than Spanish. Figure 1 depicts the nature of this effect.



**Figure 1. IAT Effect and Bias**

After having established the bias effect, a correlation analysis was performed to investigate the relationship with sociolinguistic factors included in the post-IAT survey

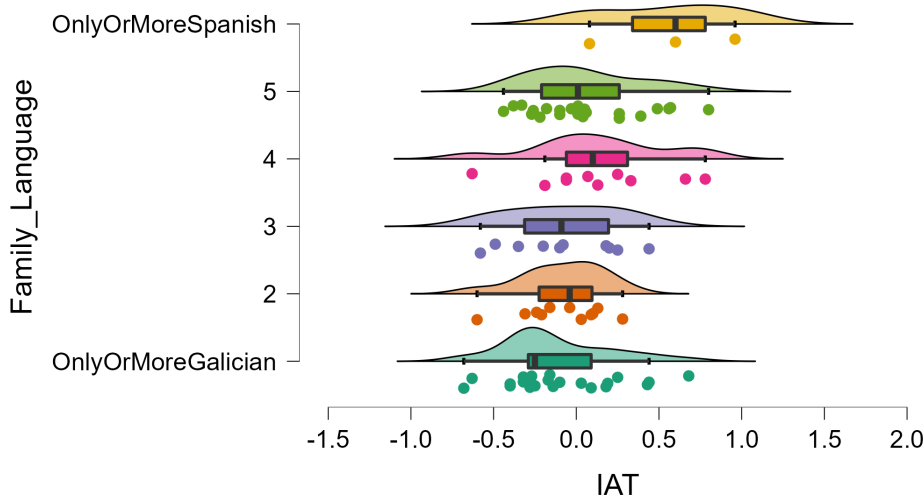
that could be potentially associated to the IAT effect. Table 1 shows the main results of this analysis.

**Table 1. Main Correlations (IAT Galician)**

Variable	<i>r</i>	<i>p</i>
Family Language	0.295	0.008
Language Proficiency in Galician	0.307	0.006
Everyday Language	0.277	0.013

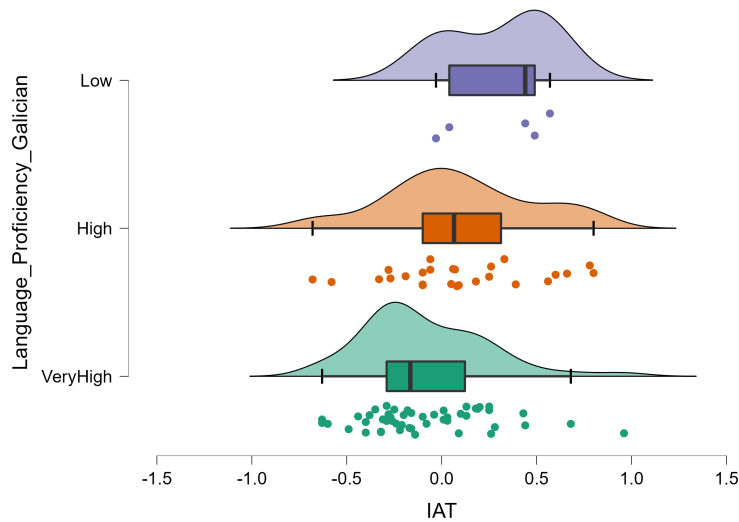
Subsequently, an analysis of variance was performed including these sociolinguistic variables. The design of the separate ANOVAs included the IAT effect as a dependent variable and *family language*, *Galician proficiency*, and *everyday language* as factors.

In the case of the *family language* analysis, a main effect of condition was obtained  $F(5,75) = 2.79, p = 0.02, \eta^2 = 0.15$ . The pairwise comparison reflected differences between the *only or more Galician* and *the only or more Spanish* levels ( $p = 0,029$ ). Figure 2 shows this effect.



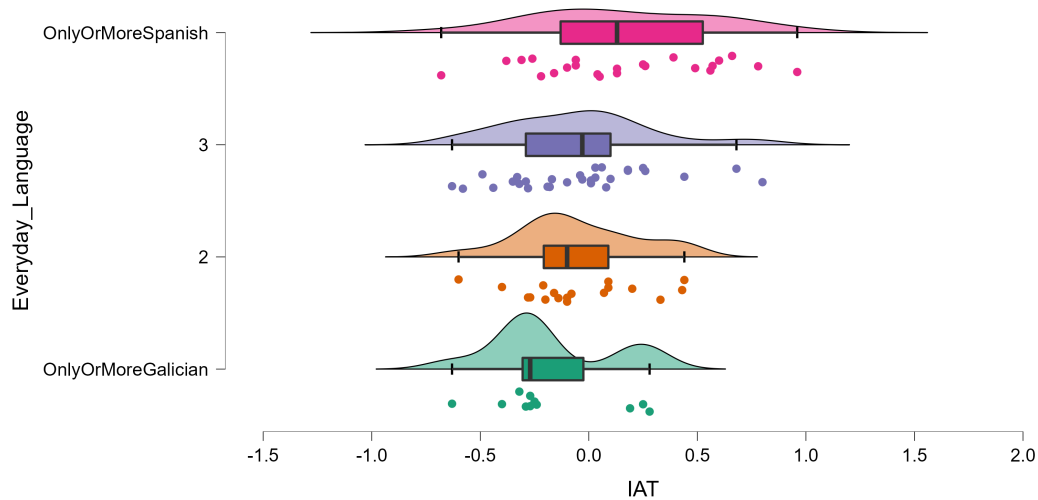
**Figure 2. IAT and Family Language**

Secondly, *Galician proficiency* was tested in the ANOVA. A main effect of condition was obtained  $F(2,78) = 4.54, p = 0.01, \eta^2 = 0.10$ . The pairwise comparison reflected differences between the very high and low levels ( $p = 0,045$ ) (see Figure 3)



**Figure 3. IAT and Proficiency in Galician**

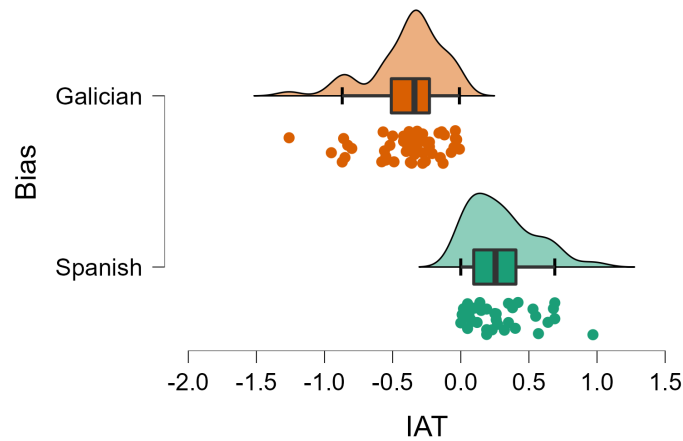
The third analysis of variance revealed a main effect of *everyday language* on IAT  $F(3,77) = 2.84, p = 0.043, \eta^2 = 0.10$ ). As can be seen in Figure 4, pairwise comparisons showed a significant difference between the levels *only or more Galician* and *only or more Spanish + 2 Galician* ( $p = 0.048$ )



**Figure 4. IAT and Everyday Language**

#### *Spanish version*

In line with the previous analysis, the first step was to establish the main effect of bias on the IAT scores in the Spanish version of IAT. A *t test* was performed to do so. From this analysis, we found that participants showed a higher mean score on Galician ( $M = -.38$ ) than Spanish ( $M = .29$ ). Results also revealed a main effect of congruency  $t(85) = 12.29, p = 0.001$ , meaning that participants showed a positive bias towards the congruent (Spanish) condition. Figure 5 depicts this effect.

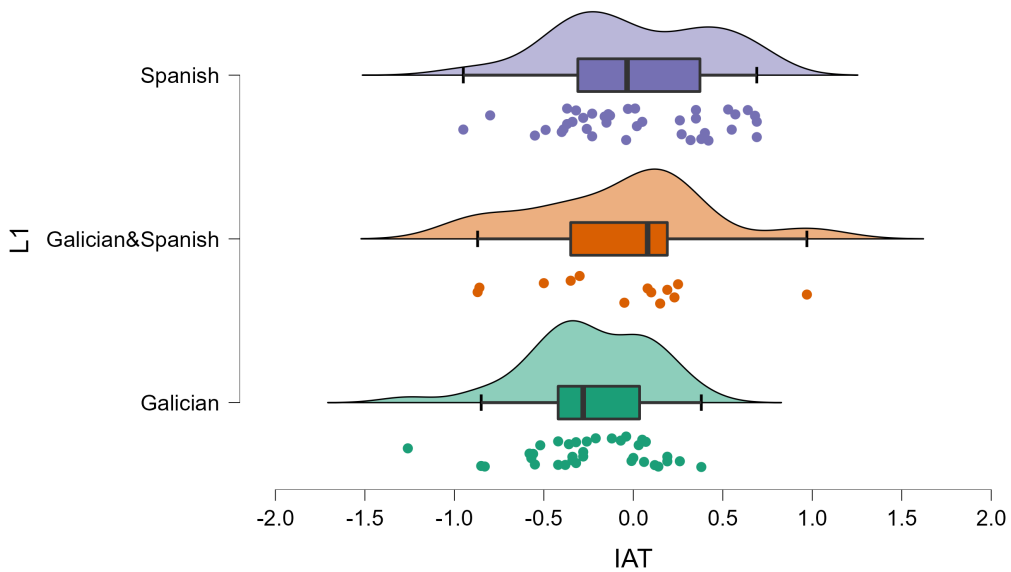


**Figure 5. IAT and BIAS in the Spanish Version**

As in the case of the Galician version, correlations were performed with the sociolinguistic variables included in the post-IAT survey. Here, *L-1*, *family language*, *everyday language*, and *political position* showed significant correlations that were later explored with separated ANOVAs. Table 2 shows the results of the correlations mentioned.

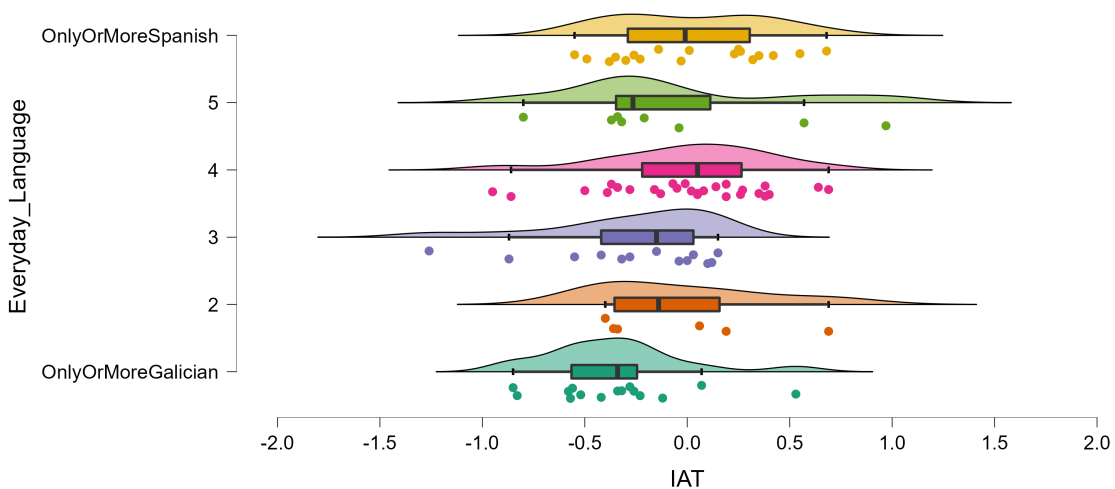
Variable	<i>r</i>	<i>p</i>
L-1	0.281	0.008
Family_Language	0.248	0.020
Everyday_Language	0.278	0.009
Political Orientation	0.296	0.005

In the case of the *L-1*, a one-way ANOVA showed a main effect of condition  $F(2,84) = 3.67, p = 0.030, \eta^2 = 0.80$ . Pairwise comparisons revealed that there were differences between the Galician and the Spanish level of the variable ( $p = 0.023$ ) (see Figure 6).



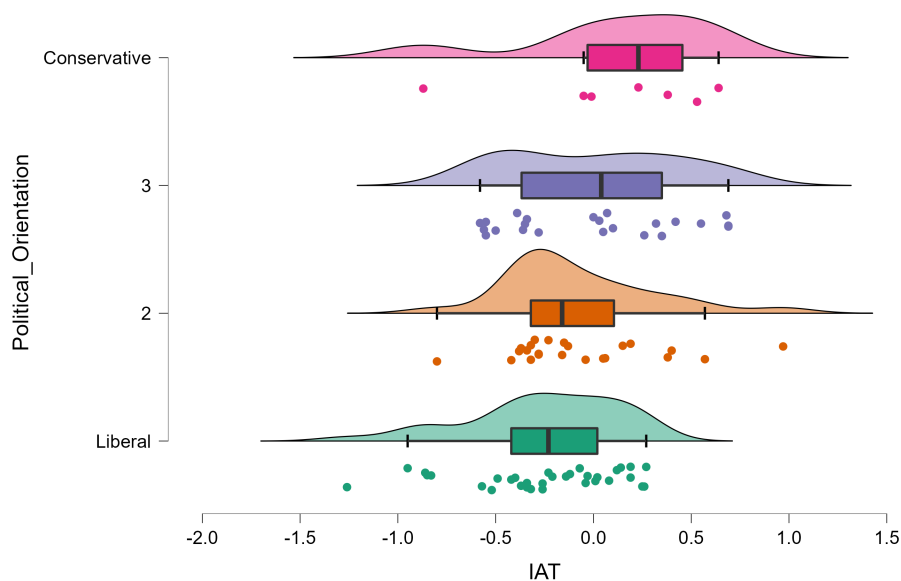
**Figure 6. L-1 and IAT**

The ANOVA performed on *everyday language* reflected a simple effect of condition  $F(5,81) = 2.25, p = 0.05, \eta^2 = 0.12$ . No pairwise comparison showed significant results. Figure 7 depicts the nature of the simple effect found.



**Figure 7. Everyday Language and IAT**

Finally, the third ANOVA, which was carried out on the *political position* variable showed a main effect of condition  $F(3,83) = 2.73, p = 0.04, \eta^2 = 0.09$ . No pairwise comparison produced a statistically difference among the levels of the variable. Figure 8 shows the nature of the political orientation effect.



**Figure 8. Political Orientation and IAT**

### Discussion

Departing from the general contextualization provided in the introduction, we can clearly state that our hypothesis 1 has not been met in both cases, and the number of sociolinguistic variables that contributed to explain the detected biases in each model also presents differences (hypothesis 2). Keeping this in mind, results offer valuable information which may effectively contribute to disentangling language attitudes in Galicia. In providing a clearer explanation of these outcomes, we will discuss each set of results in turn.

#### *Galician version*

One of the most outstanding results in this study is the fact that our first hypothesis was rejected in this version, that is to say, participants show a positive implicit bias towards Galician (incongruent condition). These data accord with previous quantitative studies (RAG, 1996, 2011), showing that implicit and explicit (declared) attitudes can co-occur at least among members of the target population: university students in Ourense with an average age of 20 years. In fact, attitudinal studies always pointed to a slight improvement in attitudes as age decreased, so this social profile is the most favourable for Galician. The main difference lies in the variables that explain the attitudinal differences in our case, as opposed to the high degree of homogeneity observed in the quantitative studies (RAG, 1996, 2011).

Sociolinguistically speaking (hypothesis 2), there are three factors that provide us with potential explanations for the detected overall positive bias towards TG. The first one is *Family language*. Results show that higher levels of use/exposure to Galician in the family unit are directly correlated with bias. More specifically, the more Galician is used in the family, the more positive bias towards this language is observed among

participants (see figure 2). In explaining the significance of this finding, one should take into account that *L-1* and *family language* do not always coincide<sup>5</sup>. In Galicia, it is common to find Galician-speaking parents and grandparents switching to the dominant language (Castilian) to address their descendants, at least during childhood (Iglesias and Acuña, 2022; Rojo, 1981). Likewise, the *Castilianizing* effect of other factors, such as the school or the media, causes the early abandonment of Galician among infants (Monteagudo et al., 2021). Both circumstances tend to result in a disruption of the intergenerational transmission of the Galician language. However, as shown in this study, its presence within the household, regardless of whether it is the first language, appears to foster favourable attitudes towards it. Secondly, *proficiency in Galician* showed a direct correlation with IAT scores. Higher levels of competence go hand-in-hand with a more positive bias towards this language (figure 3). This is, in fact, one of the few sociological or linguistic variables that introduces attitudinal differences in quantitative studies (RAG, 1996), underlining the significance of enhancing proficiency in the minoritised language to match that of the dominant language. In the same vein, Dewaele and Pena (2018) have also revealed that there is no relationship between perceived competence and attitudes in the case of Spanish. In this sense, this finding aligns with the results from previous research, both in terms of lower self-reported proficiency in Galician, and lower proficiency observable in oral and written productive skills (Loredo & Silva Valdivia, 2020; Monteagudo et al., 2021). Thirdly, as seen in Figure 4, *everyday language* also correlates with IAT results. In this case, people with higher use levels of Galician show more positive bias towards this language. This interrelation is particularly relevant, especially because in previous literature the prediction of linguistic behaviour was based fundamentally on the language or languages to which each speaker is most exposed to and, therefore, depends on linguistic habits rather than on declared (explicit) attitudes (RAG, 2011).

#### *Spanish version*

Unlike the first set of results, this version of IAT was in line with our first hypothesis: more positive implicit attitudes towards GS. Thus, in this version, the results align more closely with those obtained in qualitative attitudinal studies, which indicate a higher valuation of Spanish over Galician and, therefore, a certain maintenance of traditional linguistic biases towards the minoritised language (see *introduction*)<sup>6</sup>.

On the one hand, these results can be explained by the same sociolinguistic variables observed in the first version: *Family language* and *everyday language*. Interestingly, *L-1* and *political orientation* have also been identified as factors that can explain the outcomes of this experiment.

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<sup>5</sup> In this sample, 16.2% of the participants chose Spanish as their initial language while identifying their relatives as Galician speakers.

<sup>6</sup> The research team seeks to delve deeper into these differences by comparing and contrasting the IAT results from this study with the data obtained in focus group discussions with participants. Specifically, those who showed the highest levels of contrast in IAT scores, both in terms of Galician and Spanish.

*Family language* and *everyday language* showed a similar pattern to that in the case of the Galician version. That is, both variables also presented a direct correlation with IAT scores. In this case, higher levels of exposure and use of the Spanish language correlate with more positive attitudes towards GS. In contrast to previous studies (explicit attitudes), well-established variables such as *place of residence* do not yield significant results (see RAG, 2011). Therefore, this implicit approach shows that the predominant language in the place of residence presents less weight in terms of developing language attitudes than *family language* or *everyday language*, despite being related variables. These results also highlight the much-questioned attitude-behaviour relationship, as those who prioritise the use of one of the languages in a greater number of contexts show more positive attitudes towards that same language.

In the case of L-1, a direct relationship was observed between positive bias to GS and having GS as their mother tongue. Therefore, positive attitudes towards Spanish, to the detriment of Galician, are reinforced not only by the language of family members but also by the (self-reported) initial language. This contrasts with the Galician version, where only *family language* contributed in explaining the positive attitudes towards Galician. As mentioned, although both factors are related, they do not necessarily coincide. Finally, results show a direct correlation between political orientation and IAT scores. More specifically, positive bias towards GS appears to be associated with the more conservative segment of the political spectrum. In other words, higher values in the likert scale (conservative) presented more positive bias towards GS. This unprecedented correlation between positive implicit attitudes towards Galician and a more left-leaning political orientation appears to be in line with the stereotype linking a specific political ideology (left-wing nationalism) with the group of Galician-speakers, especially with new speakers (Formoso Gosende, 2013; O'Rourke & Ramallo, 2013). Our study now allows us to indicate that this stereotype may have a certain empirical basis, although it will be necessary to advance in this in future studies to confirm this discovery.

### **Conclusion**

This study represents a relevant contribution to the ongoing debate on whether the existing linguistic prejudices towards Galician have actually been overcome – in line with predominant qualitative research in this field. In exploring other methodological avenues that allowed us to study implicit attitudes by means of IAT, results showed the complex interrelation of various factors in both experiments.

*Family language* and *everyday language* appeared to play a very prominent role in determining the implicit language attitudes towards TG and GS (see both versions). In a context where the number of Galician speakers is clearly decreasing, the growing disaffection of the Galician population towards the minority language can become more pronounced with the passing of generations if timely actions are not taken. This will noticeably affect *proficiency in Galician* (version 1) – the only other detected factor that plays a significant role in the development of positive attitudes towards TG – while



simultaneously strengthening the role Spanish as the *L-1* (version 2) – a driving factor in the formation of positive attitudes towards GS according to the obtained results.

Finally, unlike previous research on explicit attitudes, this study suggests that *place of living* (e.g. rural vs urban) is not associated with implicit attitudes. Higher social mobility in these generations as well as new language contexts provided by means of social media and other technological resources (among other factors) may progressively weaken the traditional language patterns in a growing number of contexts. Interestingly, other new variables – such a *political orientation* – arise as relevant factors that should be addressed in future research.

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