

## Language contact and the intonation of *yes/no*-questions in Galician and Spanish: The effects of age, gender and language dominance

This paper examines the intonation contours of *yes/no*-questions used in Galician and Spanish by Galician-Spanish bilinguals. Although *yes/no*-questions in many Peninsular varieties of Spanish tend to have a final rising intonation (Face, 2004; Prieto, 2004), other northern varieties of Peninsular Spanish and Galician have a falling intonation (e.g., Fernandez Rei, 2019; López-Bobo & Cuevas-Alonso, 2010; Perez Castillejo, 2012). Differences between Spanish and Galician can potentially lead to cross-linguistic influence. Previous studies have shown that language contact can have an effect on intonation (e.g., Author, xxxx; Colantoni & Gurlekian, 2004; Elordieta, 2003; Elordieta & Calleja, 2005; Simonet, 2011). However, the precise outcome of language contact may differ from one bilingual community to another, as well as within a single community. Moreover, the direction of cross-linguistic influence may vary depending on social factors.

The specific research questions of this study are: (1) What intonation contours are used in bilingual Galician and Spanish?, (2) Do bilinguals use similar or different intonation contours in their two languages?, and (3) What is the effect of age, gender and language dominance on the intonation contours of *yes/no*-questions used in Galician and Spanish?

The data come from an interactive communicative task, which was adapted from Author (xxxx). The participants were 19 Galician-Spanish bilinguals (10 females and 9 males) from A Coruña and Chantada in Galicia. Their ages ranged from 21-62 years, with a mean age of 37.4 years. Ten participants were simultaneous bilinguals, and 9 were sequential bilinguals. Moreover, 10 participants were Spanish-dominant and 9 were Galician-dominant, based on the Bilingual Language Profile (Birdsong et al., 2012). The task was a game played in pairs. The participants received a stack of question and answer cards with objects in different colors, and asked and answered questions in turns (e.g., *¿Tienes una nube?* ‘Do you have a cloud?’). All participants played the game in both Galician and Spanish. The data were annotated using Spanish ToBI conventions (Beckman et al., 2006; Hualde & Prieto, 2015) in *Praat* (Boersma & Weenink, 2018). A total of 2,553 *yes/no*-questions were analyzed (1,330 in Spanish and 1,223 in Galician). The analysis focused on the nuclear pitch accent and the final boundary tone.

The results revealed three main contours, which were used in both Galician and Spanish: two rising contours (L+H\* HH% and L\* HH%) and one falling contour (H+L\* L%). These contours were also documented in Perez Castillejo (2012) for Galician Spanish. There was a significant effect of language. That is, most falling contours (H+L\* L%) were produced in Galician, whereas most rising contours (L+H\* HH% and L\* HH%) were produced in Spanish. The majority of the participants (79%) used the same intonation for *yes/no*-questions across both languages, based on their language dominance. However, some participants used different intonation contours in each language.

Furthermore, age, gender and language dominance had a significant effect on the intonation contours used in Galician and Spanish. Specifically, younger and male participants produced more rising contours (L+H\* HH% and L\* HH%) in both languages, whereas older and female participants produced more falling contours (H+L\* L%). Thus, older and female participants used the contour that is typical of Galician more than the younger and male participants, which can be explained by their language use. Finally, language dominance played a significant role in the intonation contours used. Participants had a tendency to produce intonation contours associated with their dominant language, regardless of the language they

were speaking in. Specifically, Galician-dominant participants produced more falling contours (H+L\* L%), whereas Spanish-dominant bilinguals produced more rising contours (L+H\* HH%) in both languages. The findings for age and language dominance are in line with those of Perez Castillejo (2012). Individual differences can be explained by the participants' language histories and linguistic attitudes.

In all, this study contributes to the limited research on the intonation of *yes/no*-questions in Galician and Spanish and the effects of social factors on intonation in situations of language contact. Moreover, the bilingual approach adopted in this research sheds light on the direction of cross-linguistic influence.

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