Neutralization of palatals based on bilingual-dominance in Basque and Spanish

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Introduction

This study aims at examining the effect of bilingual-dominance on the merging of a pair of sounds in Basque and Spanish. The process under analysis is yeismo, that is, the merging of the palatal lateral /ʎ/ and palatal fricative /ʝ/ into [ʝ] (Hualde, 2005). Yeismo is a highly widespread process in the Spanish-speaking world (e.g., García Mouton & Molina Martos, 2012, Orduz Navarrete, 2013). The first researchers relied on transcriptions to describe this process, but more recent ones have employed more reliable acoustic measures such as intensity difference and F2/F3 values to attest for the discrimination of the two sounds (Hualde & Beristain, forthcoming; Recasens, 1996; Rost, 2017).

In the present study, the two contact languages are Spanish and Basque, and the region under study is the Basque town of Azpeitia. In Azpeitia Basque the distinction between /ʎ/ and /ʝ/ has been described to be phonemic, e.g. iye [ije] means ‘almost’ vs. ille [i xe] means ‘hair’ (Beristain, 2018, in press: 9). In Azpeitia, yeismo has been previously studied in Basque (Hualde & Beristain, forthcoming), but not in Spanish. Also, the degree of bilingualism of the speaker is a variable that has not been considered in the past. This study tries to fill that gap in the research.

Research Questions

- RQ #1: How common is it for speakers of Azpeitia Basque and Spanish to merge /ʎ/ and /ʝ/ into [ʝ]?  
- RQ #2: Does the bilingual-dominance of the speaker have an effect on the neutralization of such sounds?

Methodology

The area under study in this project is the town of Azpeitia, in the Basque Country, north of Spain. Azpeitia is among the most strongly Basque-speaking towns in the Basque Country where Spanish only plays a minor role (Eustat, 2017). Two different groups were studied for this project, classified according to their language dominance: (1) Basque-dominant bilinguals, i.e., those that only speak Basque at home [N=6]; and (2) Basque-Spanish balanced bilinguals, i.e., those that speak Spanish to, at least, one of their parents, but have also grown up speaking Basque [N=6].

The experiment consists of an elicitation task conducted both in Basque and Spanish. Participants were presented with words in sentences and asked to inflect the noun correspondingly. There were 56 tokens in Basque and 70 in Spanish. The dependent variables considered were the intensity difference between the palatal phoneme and the following vowel, and the F2 and F3 values at the minimum intensity point of the consonant (Hualde & Beristain, forthcoming; Quilis, 1981; Recasens, 1996; Rost, 2017).

Results

Running linear mixed-effects models, it was found that Basque-dominant speakers produced two different sounds both in Basque [t(31)=11.427, p<0.001] and Spanish [t(40)=5.713, p<0.001] (Figure 1). As far as the Basque-Spanish balanced bilinguals are concerned, there was no merging in Basque [t(27)=12.04, p<0.001], but there was a slight overlap in Spanish productions (see Figure 2), like those of a general monolingual Spanish speaker. Still, the statistical model revealed they are produced as different sounds [t(40)=2.69, p<.05]. Finally, the lmer model showed a main effect of t(781)=−3.53, p<.001 between BILINGUALISM TYPE × EXPECTED PHONEME to produce the palatals in Spanish.
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Figures

Figure 1. Intensity difference between consonant and following vowel per language by Basque-dominant speakers (where <ll> = /ʎ/ and <y> = /ʝ/)

Figure 2. Intensity difference between consonant and following vowel per language by balanced bilingual speakers (where <ll> = /ʎ/ and <y> = /ʝ/)

References


