

Aspirated [p t k] in sung Spanish: A comparative study of Argentine opera and folk singers' pronunciation

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Background

In English and German, voiceless stops [p t k] at the beginning of stressed syllables are typically followed by a burst of breath or aspiration (Ladefoged & Disner, 2012). By contrast, in Spanish (especially in the Argentinian variety), these consonants are not commonly aspirated (Hualde, 2014). The length between the stop release and the moment when the vocal cords start to vibrate, which is called voice onset time (VOT), provides an important clue to studying phonetic differences between languages. Consequently, Spanish stops are expected to have a shorter VOT than English and German ones. However, we have identified that in sung Spanish these consonants tend to be aspirated by Argentine opera singers. In previous studies (Guzmán & Shifres, 2018, 2020) we proposed the existence of a colonial (Quijano, 2000) phonetic-aesthetic canon built on the main languages of the classical repertoire, since it is argued that some of their phonemes or their ways of pronouncing (such as [p t k] aspiration, [b] and [v] contrast, [b d g] reinforcement between vowels, [m n] doubling, etc.) provide clarity and precision to the vocal performance. Thus, Argentine opera singers follow these prescriptions as rules for good singing, even when they are singing in their mother tongue. This practice ignores the expressive and identity role of pronunciation in singing and the consequences that a foreignized pronunciation would have for communication between Spanish-speaking singers and listeners.

Aims

We have proposed to examine the degree of voiceless stops' aspiration in Spanish pronounced by Argentines specialized in opera singing (who would be influenced by the phonetic-aesthetic canon) and folkloric singing (without a canonical training). The VOT of these consonants is expected to be higher in the first modality. This would imply that Argentine opera singers foreignize their own pronunciation in order to adjust their interpretations to the classical vocal training requirements.

Methods and results

3 classical singers and 3 folk singers from Argentina participated in this study. Using a Shure SM58 microphone connected to a Zoom H6 recorder, voice samples were obtained from each participant in two modalities: (i) an interpretation of a chamber song composed with traditional elements of local music and poetry (N[p] = 8; N[t] = 35; N[k] = 13), and (ii) an interview that collects biographical data, musical preferences, and information about their musical training and practice (for this we considered the first spoken phonemes in the same quantity as those sung). Then, the VOTs of voiceless stops followed by vowels or semivowels in syllable beginnings were segmented, labelled and measured using Praat 6.2.07. As in speech, the dental stop [t] was more aspirated than the bilabial [p] but less than the velar [k] (which showed great variability) in all modalities. All three consonants were sung on average with higher VOTs by the opera singers than the folk singers. In fact, while for the former the sung dental phoneme showed a great tendency to aspiration, for the latter it had a slightly lower average than in

speech. Furthermore, the differences in these values between singing and speaking were greater for the opera singers. This supposes a great distance between both communicative modalities.

Discussion and conclusion

Sung Spanish by Argentine opera singers incorporates pronunciations that are not expected in their everyday speech. These incorporations seem to be motivated by a phonetic-aesthetic canon based on the hegemonic languages that promises high-quality performances, but results in foreignized pronunciations. In this work, we have studied the aspiration of voiceless stops—typical of English and German—in spoken and sung Spanish. Calculating their VOT, we found that Argentine opera singers tend to differentiate their voiceless stops when singing from the one they use regularly when speaking, resembling a more foreign pronunciation. We must emphasize the great tendency to aspirate the dental plosive in opera singing. This would be justified by the technical search for a projected voice and, for this, placed around the dentoalveolar zone, which offers a wide resonance capacity. The same thing happens, for example, to the French [r], which changes its typical spoken uvular position (back) for an operatic alveolar position (front) similar to the Italian [r]. Finally, despite the fact that singing and speaking often show some communicative differences (such as formality, spontaneity, speed, and expressiveness), their phonetic similarities in folk singers' samples (which were not conditioned by the classical canon) suggest that a more native way of singing Spanish is possible. In addition, this could contribute to more genuine interpretations and, consequently, to strengthen the bond between Spanish-speaking singers and listeners.