

# Voicing of Plosives in Murcian Spanish: Current state of the production of /d t g k/.

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## Abstract

The ‘spirantization’ process of intervocalic voiced stops (e.g., /aba/ > [aβa] ‘bean’, /ada/ > [aða] ‘fairy’) has been largely documented in the languages of the Iberian Peninsula (Simonet et al., 2012, and references therein). Simultaneously, the voicing of intervocalic voiceless stops has also been observed in some Spanish varieties: Andalusia, Toledo, Barcelona, Madrid, Cuba, Panama (e.g., Torreira & Ernestus, 2011). Few studies examined these two stop reduction processes within the same dialect, e.g., Gran Canarian Spanish (Broś et al., 2021), and explained the re-organization of a voicing contrast into a manner contrast by means of linguistic and demographic factors, e.g., rural vs urban origin (Broś et al., 2021).

The present study investigates the current state of plosive production in the Region of Murcia, as only one case study by Martínez-Celdrán (2009) has attested the presence of the two reduction processes, namely spirantization and voicing, in this area. Altogether, the above circumstances make Murcia an ideal place to study: (1) the interaction of these two reduction processes in a single dialect and their consequences in the re-organization of a voicing contrast; and (2) the effect of social factors, such as origin and residence, on the two reduction processes in the speech of Murcia.

Twenty-one speakers from the Region of Murcia produced target words with intervocalic /t k d g/ while describing the illustrations of a story (840 productions=21 speakers\*4 stops\*10 repetitions). They also completed a demographic questionnaire. The 840 productions were manually annotated for consonant closure, burst and aspiration, adjacent vowels, and intervocalic voicing. A Praat script extracted measures of duration, intensity (RMS, Intensity Difference), and energy distribution (spectral tilt). For the statistical analysis we applied mixed-effects regression modeling using individual speaker and lexical items as random factors, duration, intensity, and energy distribution measures as dependent factors, and underlying voicing (voiced, voiceless), age, gender, origin, and residence as fixed factors. Preliminary results suggest that (1) despite the large variation in the degree of /tk/ voicing and /dg/ spirantization, there is no merger between underlying voiced and voiceless stops within a speaker; (2) duration and intensity of the plosives vary among individuals in a way that these cues help distinguish /dg/ and /tk/ avoiding the merger. Final results will illustrate

the importance of psycho-social factors in the re-organization of the stop class, and their interaction with linguistic and social factors.

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