Structural implications of voiced stop weakening: A sociolinguistic analysis of intervocalic /b/ in Caracas speech

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This study examines the linguistic and extra-linguistic factors influencing variation in the elision of the voiced bilabial stop /b/ in intervocalic position (e.g. esta\textsuperscript{b}a ‘to be-1SG-IMP’) by native Spanish speakers of Caracas, Venezuela. Where variation in the production of intervocalic /d/ is a thoroughly studied sociolinguistic phenomenon reflecting processes of both internal and external change (Alvar, 1972; Blas-Arroyo, 2006; Cedergren, 1979; D’Introno & Sosa, 1986; Hernández-Campoy & Jiménez-Cano, 2003; Navarro, 1983; Samper Padilla, 1996), there is a paucity of research investigating the impact of extra-linguistic factors on the variable production of intervocalic /b/. Given the structural similarities of the voiced plosives and previous research on the linguistic behavior of /b/ (Cole, Hualde & Iskarous 1999; Ortega-Llebaria 2004), it was hypothesized that variation in the production of intervocalic /b/ may be subject to similar processes of phonological and morphological conditioning previously attested for /d/ (Blas-Arroyo, 2006; Díaz-Campos & Gradoville, 2011; Navarro, 1983; Samper Padilla, 1996). Also, it remains to be studied whether or not any extra-linguistic factors play a role in this conditioning of intervocalic /b/. Thus, the primary contribution of this study is the presentation of a quantitative, sociolinguistic analysis of intervocalic /b/ in the speech of native Spanish speakers of an intervocalic /d/ weakening dialect (D’Introno & Sosa 1986).

The corpus for this study consists of 36 sociolinguistic interviews taken from Estudio sociolingüístico de Caracas (Bentivoglio & Sedano 1993). The speakers are evenly stratified by sex, socio-economic level (high, middle, low), and age (14-29, 30-45, 61 and older). 1800 tokens (50 tokens per speaker) were coded combining acoustic and impressionistic techniques by both researchers for elision or retention of the dependent variable. In addition to the three extra-linguistic variables under study, the following four linguistic independent variables were analyzed using Goldvarb X (Sankoff, Tagliamonte & Smith 2005): 1) change in frontness/backness of vocalic context, 2) stress, 3) position within the word, and 4) morphemic status.

The results revealed that elision of intervocalic /b/ is favored when the target segment occurs in a vocalic context flanked by back vowels (e.g. /a o u/). Elision is also favored in unstressed syllables and in word-medial position. Both socioeconomic level and age are also significant factors in the elision of intervocalic /b/, specifically lower and middle class speakers favor elision as well as young speakers (14-29 years). With regard to the role of morphological conditioning, a separate analysis demonstrated that, upon exclusion of the imperfect –ar verb tokens, all extra-linguistic factors gained importance in the prediction of elision and the linguistic variable ‘change in frontness/backness of vocalic context’ was no longer selected as a significant factor. This finding suggests that the elision of intervocalic /b/ in the corpus under study is influenced by morphemic status, a type of conditioning previously attested in investigations of intervocalic /d/ (Blas-Arroyo, 2006; Díaz-Campos & Gradoville, 2011; Navarro, 1983; Samper Padilla, 1996). Findings from the present study carry implications regarding the structural conditioning of Spanish voiced stops, which will be further detailed and discussed.