

A usage-based analysis of variable trill production in Spanish

Acoustic descriptions of the Spanish voiced alveolar trill /r/ reveal that native speakers do not produce the expected variant containing at least two taps (Hammond 1999, Willis 2005, Colantoni 2006). Hammond presents speaker's data from Argentina, Chile, Peru, and Puerto Rico indicating that spirant or sibilant variants are the common norm. Willis reports data collected in the Dominican Republic where he finds that the predominant variant is a pre-aspirated tap. Colantoni (2006) studies the trill in Argentinean Spanish revealing that variants range from fricative to approximant. The fact that speakers from different regions are producing variable the trill opens the question for analyzing the role of usage and frequency in the case of this sound change. The present paper examines trill productions in spontaneous speech from Venezuelan Spanish with the purpose of providing a usage-based account based on token frequency. Furthermore, a general perspective is given by including linguistic and extra-linguistic factors to determine the social source of variation. Specifically, an acoustical analysis of the data is performed in order to define the variants of /r/ in this variety of Spanish as well as the role of age, gender, and socioeconomic background in the production of the trill.

For this study, thirty-six speakers were selected from the corpus *Estudio Sociolingüístico del Habla de Caracas* (1987; see Bentivoglio and Sedano 1993) with equal representation of: socioeconomic level (upper class, middle class, and working class), age (14-29, 30-45, and 61 and older), and gender (male and female). All instances where a voiced alveolar trill was expected were extracted and codify according to the following independent variables: 1) phonetic context, 2) position within the word, 3) stress, 4) number of syllables, 4) grammatical category, 5) token frequency, 6) type frequency, 7) age, 8) gender, and 9) socioeconomic class. The first part of the analysis focuses on determining the role of frequency in predicting reduced variants of the trill. Following Bybee (2001, 2002), we hypothesized that, given the phonetic nature of this variable phenomenon; high frequency tokens will tend to show more reduction. The second part of the analysis examines the effect of the independent variables included in the production of the different variants. From these results, an interpretation of the sociolinguistic implications of this phenomenon is proposed with special emphasis in determining the nature of sources of social variation.

Acoustical preliminary analysis of the data reveals that speakers produced at least five different variants: 1) a voiced alveolar trill with three or more taps, 2) a voiced alveolar trill with two taps, 3) a voiced approximant variant with one tap followed by air flow, 4) a voiced approximant variant without occlusions, and 5) a voiceless sibilant-like production. The first part of the analysis reveals that more frequent tokens are more likely to be reduced than infrequent ones. Furthermore, frequency of the previous and following words also predict reduction. These findings have implications for proposing that a pattern consistent with lexical diffusion can be used to characterized variable trill production in Spanish.

References

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