

Phonetic maintenance of the tap–trill contrast in Cavite Chabacano

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As in Spanish, there is considerable rhotic variation in the group of Philippine-Spanish creoles known as Chabacano, and the number of rhotic phonemes they have is a matter of debate. Descriptions of most Chabacano varieties identify only one rhotic phoneme (e.g. Ing 1976, Sippola 2011), whereas Cavite Chabacano descriptions (e.g. Lesho 2013) list both a tap and trill, even though the distribution of rhotics seems to be the same across varieties. In Cavite Chabacano, trill variants include [r], [r̄], [hr], and [hr̄], and tap variants include [ɾ], [ɾ̄], [ɽ], as well as [l] in coda (Lesho 2013). In this paper, I focus on how the intervocalic tap–trill distinction is phonetically realized, and how the rhotics pattern in coda position.

Based on wordlist data, 1,156 rhotic tokens from 20 male and 21 female speakers were classified according to phonetic type (Bradley & Willis 2012) and measured for duration and number of closures. The duration results were analyzed with linear mixed effects models with phoneme, phonetic type, closures, syllable position, dialect, gender, age, and Spanish knowledge as fixed effects, and word and speaker as random effects.

Intervocalic phonemic trills ($n = 283$) and taps ($n = 300$) were both most commonly realized as [ɾ] (33% and 49%, respectively). After [ɾ], the most common phonemic trill variants were [r] (27%), [ɾ̄] (approximant tap; 12%), [r̄] (11%), [ɽ] (perceptual tap; 6%), [hr] (5%), [ɽ̄] (4%), and [hr̄] (4%). The other phonemic tap variants included [ɾ̄] (18%), [ɽ] (10%), [ɽ̄] (9%), [ɽ̄] (9%), [ɽ̄] (4%), and [hr̄] (0.3%). However, phonemic taps and trills differed in number of closures and duration ($p < 0.001$). Phonemic trills averaged 1.60 closures (range: 0–6) and had a mean duration of 82 ms, whereas phonemic taps ($n = 300$) had 0.96 closures (range: 0–3) and a mean duration of 46 ms. There was an interaction between phonetic type and phoneme such that [ɾ̄] ($p < 0.05$), [r̄] ($p < 0.0001$), and [ɽ̄] ($p < 0.01$) were longer if they were tokens of phonemic trills than if they were tokens of phonemic taps.

For coda rhotics ($n = 573$), the most common variant was [ɽ̄] (33%), followed by [ɾ̄] (25%), [r̄] (14%), [l] (11%), [ɾ̄] (8%), [ɽ̄] (4%), and [ɽ̄] (4%). The prevalence of [ɽ̄] is likely due to English influence, and the [l] variant was restricted only to certain words (e.g. *muher* [muhel] ‘woman’). Coda rhotics were longer in word-final (181 ms) than in word-internal position (73 ms; $p < 0.001$), reflecting this variety’s tendency to lengthen phrase-final syllables (Lesho 2013).

There were a number of gender effects, but other social factors, including Spanish knowledge, were not significant. Women produced longer intervocalic rhotics than men ($p < 0.05$), and they also had longer phrase-final lengthening of coda rhotics ($p < 0.01$). They also produced 73% of the coda [ɽ̄] tokens.

These phonetic results support phonological analyses of Cavite Chabacano as having two distinct rhotics, despite allophonic overlap and the wide range of variants due to different stages of language contact as well as universal factors. As in many Spanish dialects (e.g. Willis 2007), the tap–trill contrast is maintained by lengthening trills through approximantization and preaspiration. The low frequency of [l] and preaspirated variants is related to historical dialectal variation in Chabacano and Spanish (Lipski 1987). This paper contributes to the phonetic and phonological documentation of Chabacano and shows how similar this creole variety has remained to its lexifier with respect to its rhotic system.

References

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