Revisiting Rivera: Palatalization of dental stops in a border town

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One of the challenges in quantitative sociolinguistics is the scarcity of real-time data (Labov 1994). In this paper I present a follow-up study of the social stratification of palatalization of /ti/, /di/ in Uruguayan Portuguese (UP). UP is a minority language spoken in Rivera, Uruguay, a bilingual town located along the Uruguayan-Brazilian border. The articulation in some varieties of Brazilian Portuguese (BP) of /t/ as [□] and /d/ as [□] before [i] results from the phonological process called *palatalization*. In UP pairs like *tipo* [‘tipu] ~ [‘□ipu] ‘type’ and *digo* [‘digu] ~ [‘□igu] ‘I say’ are pronunciation variants of the same word.

Carvalho’s (1998) original study provided apparent-time evidence suggesting that palatalization of /ti/, /di/ in Rivera was undergoing linguistic change. I test the apparent-time construct with the objective of substantiating the change in progress hypothesized by Carvalho (1998). New data were collected in participant-observation and individual and group sociolinguistic interviews with fifty-four local UP speakers conducted by the researcher in the summers of 2006 and 2007. Table 1 outlines the age limits of the younger, young-adult, and older generations for each of the two samples under study.

Table 1. Age distribution in each of three age groups for each speech sample

	1995 sample	2007 sample
Younger speakers (Generation 1) N=18	16 – 29 years old (born ~ 1979 - 1966)	15 - 29 years old (born ~ 1992 – 1978)
Young-adult speakers (Generation 2) N=18	30 - 49 years old (born ~ 1965 - 1946)	30 - 49 years old (born ~ 1977 – 1958)
Older speakers (Generation 3) N=18	50 - 70 years old (born ~ 1945 – 1925)	50 - 70 years old (born ~ 1957 – 1937)
	Total N= 54	Total N= 54

Note: The 1995 sample corresponds to Carvalho’s study.

As seen above (Table 1), the two samples are comparable in size, age distribution among age groups, socioeconomic class, and gender. Thus, the sample is adequate for comparability purposes in real-time sociolinguistic research (Bailey et al. 1991). The total number of tokens coded to analyze palatalization of dental stops in the present sample is 2,526. Each token was coded for the operation of linguistic and social factors. As for the examination of the linguistic factors, 2007 data are generally consistent with previous research both in UP and across varieties of BP. Multivariate analysis results

indicate, following and preceding phonological environment and tonicity of the syllable play a significant role in conditioning the variable realization of palatalization of /ti/, /di/ in contemporary UP.

Apparent-time evidence of both data sets corroborates that palatalization of dental stops is age-related, since the frequencies of palatalization are strongly associated with age differences. As Labov (1972) argues, when the conservative variant has a proportionately higher ratio of occurrences among older speakers, and when the innovative variant finds higher ratio of preference among younger speakers, age stratification of this sort may be interpreted as an index of change, (i.e.), 'change in apparent-time.' However, the synchronic generational differences found in the present study point also to the possibility of age-grading, thus; for the time being, I will consider both interpretations.

As Figure 1 shows, there is a repeated age-gradient distribution among the groups. While in the 2007 sample young and young adults favor the innovative variant, older speakers disfavor it. The 1995 sample shows that while young people prefer the palatal variant, young adults and older speakers disfavor it. However, a cross-sectional analysis shows that the decreasing frequencies among the 1995 and 2007 Generation 1 group points out that the latter generation has adopted the innovative variant but at a slower pace than the former generation did.

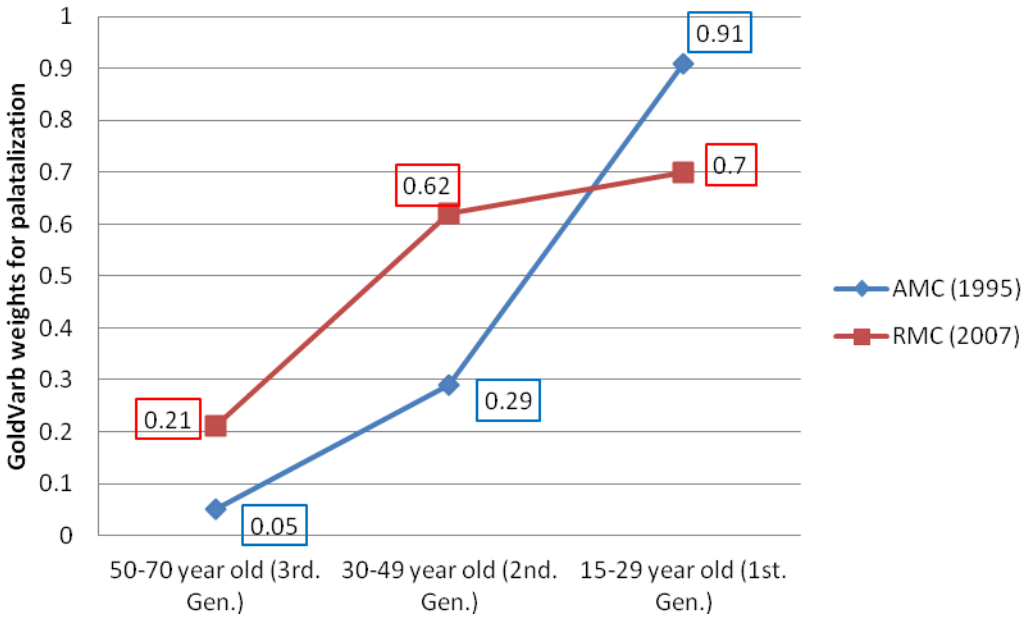

Figure 1. Comparison of rates of palatalization of dental stops followed by /i/ according to age in UP.

On the other hand, the present study shows that speakers in the 2007 Generation 2 group (30 – 49 years old) tend to favor the innovative variant at (.62), while the 1995 data shows a different scenario: speakers in this age bracket tend to favor the dental variant

showing a low probability (.29). This finding can be interpreted as a 'sustained' use of the palatal variant over time by this generation. That is, speakers in the 2007 Generation 2 group (30-49 years old) were 18 and 37 years old, respectively, twelve years earlier, which is the time depth of the study. Carvalho reports an almost categorical (.91) probability of use of the palatal variant among speakers in the 1995 Generation 1 group and (.29) for speakers in the Generation 2 group. The generational differences across studies indicates that the 1995 Generation 1 group (15-29 years old) started out at (.91) probability of rule application. These speakers have continued favoring the palatal variant but at a much slower pace as indicated by the decrease (.62) in the 2007 Generation 2 group.

In direction that is similar to the findings of previous research; 2007 data show that Generation 3 speakers (50-70 years old) prefer the conservative variant at (.21). Older participants in the 1995 sample show a mere (.05) of preference for the palatal variant. Cross-dialectally, the same pattern can be found. Bisol (1991) reports that the older group, speakers aged 36-55 years old, favors the conservative pronunciation of dental stops, showing a probability of rule application of (.37). Comparing across studies, speakers in the 2007 Generation 3 group (50-70 years old) were 38 and 58 years old, respectively, in 1995. The probability of palatalization for speakers in this age-cohort in 1995 falls between Generation 2 (.29) and Generation 3 (.05). These results indicate that for speakers in this age-group, the dental variant is still the norm. However, these speakers, also, slightly favor the palatal variant at very sparse rates, reaching in 2007 an unfavorable (.21) of rule application.

Carvalho's (1998) results show strong rates of palatalization distributed across age-groups ranging from 0.05 to 0.91. Thus, the time window[1] captured in the 1995 data signaled a synchronic pattern of a vigorous change. However, twelve years later, comparative data indicate that the linguistic change has reached a state of relative stability at the speech-community level. In line with previous research, Battisti and Hermans (2009:235) report that palatalization of dental stops shows signs of stabilizing in the speech community of Antônio Prado due to strong social conditioning. The fact that apparent-time data from a neighboring state in Brazil shows an identical distribution further strengthens the results. This is a worthwhile finding since it indicates that UP in the speech community of Rivera is marching in line with southern BP varieties in response to regional changes.

In sum, as expected, age is the strongest social factor conditioning palatalization of dental stops in Rivera. Data results confirmed the hypothesis that younger speakers tend to prefer the innovative variant. However, the hypothesized increase in the use of the palatal variant over time among the younger generation is not confirmed in the present study. Although an increment in the use of palatalization of dental stops is found across age groups in apparent-time; cross-sectional comparisons point toward a state of relative

[1] For Cedergren (1987:58) "the time window captured by synchronic studies of linguistic variation is limited by many factors, among which is the average life span of individuals of the particular time of the survey."

stability at the speech-community level. Age distributions indicate that speakers of all ages participate in palatalization of dental stops in Rivera, but different age groups represent different palatalization rates. As expected, young people, females, and mid-middle class speakers favor the innovative variant, while older people, males, and low-middle and working class speakers tend to disfavor it. This finding signals what (Labov 1972) would call a 'social marker'. Here we have an example of a linguistic variable that is stabilizing as a sociolinguistic marker.

The trend component implemented in the study allowed me to compare apparent-time data from two studies at different points in time, 1995 and 2007. By adding a longitudinal perspective to the study, it was possible to obtain a clear picture of the sociolinguistic evolution of palatalization of dental stops in the speech community of Rivera. I explored this approach with the objective of substantiating the change in progress hypothesized by Carvalho (1998). Based on this hypothesis, an increment in palatalization rates was expected if palatalization was indeed undergoing change; however, statistical analyses did not support this prediction.

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