Lorain Puerto Rican Spanish and ‘r’ in Three Generations

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1. Problem

Retroflex ‘r’ in coda position, has been documented in the Spanish of the Yucatan Peninsula, central areas of Costa Rica, Belize, other parts of Central America, as well as in the US Southwest (Alonso 1930; Cassano 1973, 1977; Figueroa and Hislope 1998; Hagerty 1996; Lastra de Suárez 1975; Lipski 1994; Orenstein 1974; Sánchez 1972). In these dialects, the retroflex pronunciation generally has been assumed to result from American English (AE) influence, but the cause has not been directly studied. The analysis of retroflex /r/ in Puerto Rican Spanish in Lorain, Ohio --where contact with English is ongoing and variable-- presents counterevidence to the hypothesized AE source of retroflex /r/.

In this article, I discuss the frequency patterns of use for ‘r’ among three generations of Puerto Ricans in Lorain, Ohio. The retroflex ‘r’ is most common in the third generation, a fact which is consistent with AE influence. However, if AE were the source, we would expect the lowest frequency of the retroflex in the first generation Puerto Ricans, as they are presumed to have the least contact with English. In fact, however, first generation speakers use a retroflex ‘r’ in their readings in Spanish more frequently than the second generation. The AE influence explanation is, then, problematic, and despite the evidence from the second and third generations, the occurrence of ‘r’ in the first generation cannot be attributed solely to AE influence. In addition to offering possible explanations of the data, I discuss methodological issues in the operationalization and measurement of 'language contact'.

2. Introduction

The variable (r) in syllable-final and word-final positions covers several variants, including a tap [ɾ] produced with the tongue touching the alveolar ridge once, in free variation with a trilled or multiple [r] articulated on the same region with the tongue touching the alveolar ridge multiple times. Other variants are [l] and deletion which both occur in word and syllable final position. In certain dialects such as Dominican Spanish, /ɾ/ vocalization is found as another variant. Interestingly, an [ɾ] sound like American English [ɹ] produced with the tongue’s apex going backwards without touching the roof of the mouth has been found in several Central American Spanish dialects. The retroflex [ɹ] articulation is not found in other varieties of Spanish.

<table>
<thead>
<tr>
<th>IPRS</th>
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<th>IPRS</th>
<th>IPRS</th>
<th>LPRS</th>
<th>Gloss</th>
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<tbody>
<tr>
<td>[be.'ber]</td>
<td>[be.'ber]</td>
<td>[be.'bél]</td>
<td>[be.'bél]</td>
<td>[be.'bél]</td>
<td>&quot;drink&quot;</td>
</tr>
<tr>
<td>[fa.'bor]</td>
<td>[fa.'bor]</td>
<td>[fa.'ból]</td>
<td>[fa.'ból]</td>
<td>[fa.'ból]</td>
<td>&quot;favor&quot;</td>
</tr>
<tr>
<td>[a.'par.te]</td>
<td>[a.'par.te]</td>
<td>[a.'pəl.te]</td>
<td>[a.'pəl.te]</td>
<td>[a.'pəl.te]</td>
<td>&quot;apart&quot;</td>
</tr>
</tbody>
</table>

1 The distribution of /ɾ/ in syllable-final and word-final position differs from /ɾ/ in other positions. In syllable-final and word-final position, [ɾ] is in free variation with [ɾ], while in other positions, its variants are conditioned by the phonetic environment, i.e. /ɾ/ has allophones.

Many researchers of Spanish in the Southwest have argued that the retroflex [ɹ] is a result of AE influence. Ornstein (1974) claims that the retroflex [ɹ] is due to AE interference and explains that this phoneme is pronounced more like the corresponding AE sound than the corresponding one found in most other Spanish dialects. Furthermore, Lastra de Suárez (1975) also attributes to AE interference the substitution of a retroflex [ɹ] for Spanish [ɾ] or [r] in this variety. Sánchez (1973) states that the retroflex [ɹ] found in the informal speech of Texas MAS speakers is a common instance of AE phonological interference in this dialect (e.g., [carne] [caRne] [R] = (retroflex)) (Standard Spanish carne ‘meat’). Cassano (1973, 1977) argues that New Mexico Spanish speakers substitute an AE retroflex for the Spanish flap /r/. In the Spanish of New Mexico, Alonso (1930) heard an intervocalic and syllable-final /r/ similar to the AE /ɹ/ with less retroflection. Espinosa (1930) provides a similar description of New Mexico Spanish.

As well as MAS, other varieties of Spanish have a retroflex as a variant of /r/ in coda position. The retroflex variant is found in the central areas of Costa Rica. The retroflex occurs in syllable-final and especially phrase-final position. Speakers of Costa Rican Spanish extend the environments where the retroflex appear to those where trilled /ɾ/ is produced in fast speech (Lipski 1994). Belizian Spanish and Mexican Spanish as spoken in the Yucatan Peninsula are other Central American Spanish varieties that realize /ɾ/ as a retroflex [ɹ] (Hagerty 1996). Apparently, according to Lipski (1994), the retroflex [ɹ] is more common among Belizian Spanish speakers than among the Spanish speakers of the Yucatan. The retroflection of /ɾ/ is an innovation in these Spanish dialects when compared to other dialects of Spanish.

The Spanish of Puerto Rico, like the Caribbean Spanish dialects of the Dominican Republic and Cuba, has [l] and deletion as /ɾ/ variants. Navarro-Tomás (1948) and Álvarez-Nazario (1972, 1990, 1991), in their studies of IPRS, note that /ɾ/ is often pronounced as [l] in syllable-final position or word-final position, so that, for example, hablar "to speak" is pronounced [ə.bləɾ]. Retroflection has not been documented as a variant of /ɾ/ in IPRS.

In an earlier study of Lorain Puerto Rican Spanish, Decker (1952) mentions several (r) variants that are intriguing. In this study, Decker found [ɾ], [l] as allophones of /ɾ/, as well as an intermediate variant3. Furthermore, Decker (1952) mentions that [ɾ] was articulated on the alveolar ridge, and that "a markedly relaxed ɾ (similar to SAE)" occurs after a vowel, "so that the first element properly belongs to the preceding ɾ-colored vowel." The description that Decker (1952) provides of this [ɾ] variant refers to a tap with a preceding ɾ-colored vowel.

R-colored vowels are most common in SAE words like: bear, fur, and perfect; in these words the vowel and the ɾ are a single sound and are [or can be -MFRP] written as such in I.P.A. and SAE phonetic transcription. This ɾ-coloring was found in 10% of all responses, but never without the addition of a true alveolar or prealveolar ɾ.

Decker (1952) also observes that lambdacisms -- "equalization" (in his terms, i.e. neutralization) of /l/ and /ɾ/ -- and /ɾ/ vocalization are found with less frequency in LPRS than in previous studies of PRS.

Figueroa & Hislope (1998) found “other” variants (e.g. semivocalization, the mixed variant, deletion, gemination and the English alveolar flap) and suggest that PRS in Indiana is undergoing change in its phonetic inventory.

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2 It is heard in intervocalic or syllable-final position. It is somewhat similar to r in final position in the English spoken in the west of the United States, but the tongue does not arch as far upwards and back as in the English sound. [The translation is mine.]

3 “Also may be found a variety of ɬ and ɾ which bears articulatory characteristics of each, the variety being an allophone of the two phonemes ɬ and ɾ. One can best approximate this articulation by forming the phoneme ɬ with the posterior and lateral areas of the tongue while allowing the tip of the tongue to articulate an alveolar relaxed or lightly flapped ɾ.”
3. Results of the VARBRUL analyses

I tested the effects of extralinguistic factors and phonetic environment on all phonological variants of /r/ using VARBRUL’s statistical analysis. Navarro-Tomás (1948) and Álvarez-Nazario (1972, 1990, 1991) have pointed out that lateralization of /r/ is found more often in syllable final position in IPRS, thus, the factor group phonetic environment included syllable final word internal and syllable final word final positions in LPRS to test if lateralization is also found in LPRS, following IPRS patterns. The factor group “style” consisted of reading and speaking styles. The LPRS community of speakers was divided into three generations. All sixty subjects were divided into evenly distributed groups, twenty – ten males and ten females for each generation.

The data were obtained from speakers of each “generation”, defined in a way that differs from lay knowledge, i.e. not in the same sense as age and parentage, but rather, following the same criteria that Silva-Corvalán (1994) followed in her study of the Mexican American community in Los Angeles: (1) the first generation consists of people who were born in Puerto Rico and who moved to the United States after age 12, (2) the second, of those who were born in the United States and whose parents came from Puerto Rico, and (3) the third, of those people who were born in the United States, whose parents were also born in the United States, but whose grandparents were born in Puerto Rico.

Tables 1 - 2 present, respectively, the descriptive statistics and the VARBRUL weights, application total and input and weight values for the realization of /r/ as [r], [l], [ɹ] or deletion in LPRS. All these variants were found in the data collected for LPRS.

As Table 1 shows, LPRS speakers favored [r] in syllable-final position (52%, N=1082) more than in word-final position (40%, N=889), where [l] was used more (54%, N=1186) similar to the pattern observed in IPRS by Navarro-Tomás (1948) and Álvarez-Nazario (1972, 1990, 1991).

Lorain Puerto Ricans preferred [r] in their more formal style (56%, N=1702), but not in their conversations (21%, N=269) preferring [l] in this context (61% N=767). Thus, they maintain the use of the more conservative variable in their most monitored form of speech, while preferring to use [l] in their conversations (see Table 1). Lorain Puerto Ricans also make more use of more variants for [r], for instance, LPRS speakers are deleting [r] in conversations (17%, N=216), while choosing to make use of a retroflex [ɹ] when they are asked to read in Spanish.

LPRS females prefer [r] (49%, N=1088) over [l] (42%, N=932), while the males present a very slight difference between their usage of [l] (45%, N=932) and [r] (43%, N=883).

The preference to use [r] declines across the three different generations in Lorain, as the first generation favors [r] usage (52%, N=956), while the second generation is barely divided between [r] (45%, N=769) and [l] (47%, N=802). The third generation speakers prefer [l] (51%, N=381). A retroflex [ɹ] was found among third generation speakers (10%, N=78) more than among second generation speakers (2%, N=33). First generation speakers also used retroflex [ɹ] (3%, N=52).

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4 This means that a person who arrived to Lorain in the late 1940s when (she) he was a young adult will belong to the same generation as an individual in (her) his mid-thirties who has moved to the area in the last decade.
<table>
<thead>
<tr>
<th>Dialect</th>
<th>Lorain Puerto Rican Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>[r]</td>
</tr>
<tr>
<td>Factor groups</td>
<td></td>
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<tr>
<td>Phonetic Environment</td>
<td></td>
</tr>
<tr>
<td>Word final</td>
<td>N</td>
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<tr>
<td></td>
<td>%</td>
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<td>Syllable final</td>
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<td>%</td>
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</tr>
<tr>
<td>Total (all factors)</td>
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<tr>
<td></td>
<td>%</td>
</tr>
</tbody>
</table>

Table 1. VARBRUL percentages for [r], [l], deletion and [ə] in LPRS

<table>
<thead>
<tr>
<th>Factor Group</th>
<th>Factor</th>
<th>Weight</th>
<th>App/Total</th>
<th>Input &amp; Weight</th>
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</thead>
<tbody>
<tr>
<td>Phonetic</td>
<td>Word final</td>
<td>0.419</td>
<td>0.43</td>
<td>0.43</td>
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<tr>
<td>Environment</td>
<td>Syllable final</td>
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<td>Style</td>
<td>Reading</td>
<td>0.603</td>
<td>0.61</td>
<td>0.61</td>
</tr>
<tr>
<td></td>
<td>Talking</td>
<td>0.245</td>
<td>0.26</td>
<td>0.25</td>
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<td>Gender</td>
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<td></td>
<td>Second</td>
<td>0.466</td>
<td>0.49</td>
<td>0.48</td>
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<tr>
<td></td>
<td>Third</td>
<td>0.351</td>
<td>0.39</td>
<td>0.36</td>
</tr>
</tbody>
</table>

Input: 0.511

Table 2. VARBRUL weights, application values and input and weights for the variant [r] in Lorain Puerto Rican Spanish

The preference to use [r] declines across the three different generations of Puerto Ricans in Lorain, as the first generation favors [r] usage with 0.590 as probability weight. The second generation
is barely divided between [r] and [l] with a probability weight for [r] of 0.466. But the third generation speakers prefer [l] and have a probability weight for [r] of 0.351.

Lorain Puerto Ricans are choosing to make use of several /r/ variants, including retroflex [ɹ], when they are asked to read in Spanish. Reading in Spanish is the only style that triggers the use of retroflex [ɹ] more frequently among the first and third generations than in the second generation. At least for the first generation, the speakers are aware of the negative prestige that [l] has in Island PRS, so they use retroflex [ɹ] as one of the alternatives to avoid using [l]. The retroflex [ɹ] was found among third generation speakers more than among second generation speakers.

Contrary to what has been found in the MAS linguistic literature about the usage of a retroflex in the Southwest, the MAS data collected from the community demonstrated that the situation in the Lorain dialect is different, with the Mexican speakers not using a retroflex [ɹ]. Thus, the very low frequency of the retroflex [ɹ] in LPRS cannot be attributed to MAS influence, but to AE.

Apart from AE influence, issues of bilingualism and literacy in AE come into play. I consider AE to be the source for the retroflex [ɹ] in LPRS for several reasons. First of all, AE has a retroflex [ɹ], making this language at this point in the argument the most likely culprit. Second and third generation speakers are bilingual in AE and Spanish adding in this way a variable (AE) not found in the first generation, or at least it seems. These speakers are literate in AE, with some of them having reading proficiency ranging from limited to moderate in Spanish. Thus, they use English phonology when reading. Already in the early 1950s, Decker (1952) found an [r] that had characteristics similar to the AE (r).

Literacy in AE and Spanish is also of concern. Lorain Puerto Ricans are making use of a retroflex [ɹ] when they are asked to read in Spanish due to AE influence because second and third, but not first generation LPRS speakers are more likely to read in AE and have received most all of their education in this language. To test this hypothesis, I did two additional VARBRUL runs. One VARBRUL run was done to test if first generation speakers with more exposure to AE used [ɹ] while in the second run I tested if the third generation speakers who had more contact with Spanish did not use [ɹ].

The first VARBRUL run was done with the ten members of the first generation who had more exposure to AE. The results were compared to the results from other individuals in their generation who had little or not exposure to AE. Table 3 presents these results.
<table>
<thead>
<tr>
<th>Dialect</th>
<th>First Generation Lorain Puerto Rican Spanish</th>
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</thead>
<tbody>
<tr>
<td>Variable</td>
<td>[r]</td>
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<td><strong>Factor groups</strong></td>
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<td><strong>Phonetic Environment</strong></td>
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<td>Word final</td>
<td>N</td>
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<td>%</td>
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<td><strong>Total (all factors)</strong></td>
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</tr>
<tr>
<td>%</td>
<td>51</td>
</tr>
</tbody>
</table>

Table 3. VARBRUL percentages for [r], [l], deletion and [ɹ] in the ten speakers of the first generation of LPRS with exposure to AE.

The contact with AE first generation speakers had was with their relatives or through contacts in the community at work, school, neighborhoods or church, among other possible contexts, etc. The statistics on Table 3 show that those speakers with exposure to AE were the ones producing a retroflex [ɹ].

Another separate run was done for the seven speakers of the third generation of LPRS who were Spanish dominant to determine if their more extensive exposure to Spanish had any effect in the use of the (r) variables in their conversations, but particularly to see if they used a retroflex [ɹ]. Table 4 shows the descriptive statistics.
Table 4. VARBRUL percentages for [r], [l], deletion and [ɹ] in the conversations of the seven speakers of the third generation of LPRS who were Spanish dominant

Table 4 shows that the seven third generation speakers who were Spanish dominant used [l] more than [r] in their conversations following the same pattern found in the first generation, as shown already on Table 1. These speakers did not use retroflex [ɹ] in their conversations, although the retroflex [ɹ] was found in the reading tasks of the three different generations. The behavior of the seven third generation speakers who were Spanish dominant is the same as any other native speaker of IPRS who does not use this somewhat foreign, yet innovative sound.

For the second and third generations, AE influence is behind their use of the retroflex. The third generation speakers who had more exposure to Spanish in the community and who used the language in their conversations showed the same pattern of use for the [r] variables found in IPRS, that is, they prefer [l] over [r].

For the first generation, the use of the retroflex [ɹ] is related to their exposure to AE through their contacts with AE monolinguals in the community and in their families. These first generation speakers interact with speakers of the second and third generations who are bilingual and use both languages with the first generation. For the first generation, then, the retroflex [ɹ] has several sources, among them, AE from the AE speakers in the community and from the second and third generations’ AE, as well as from first generation speakers who have some contact with AE.

4. Conclusions

Instances of the retroflex [ɹ] were collected in the recordings of the Lorain Puerto Ricans, although these were very few. However, those few instances of the retroflex were found across all generations.

The retroflex is found when the LPRS speakers are reading, not when they are speaking. Since third generation speakers (as well as second generation speakers) are exposed more to English in the classroom than Spanish, and are more proficient in reading in English, I propose that the presence of the retroflex in their reading tasks is due to AE influence.

First generation speakers also produce a retroflex. As I have shown, there are two identifiable groups within this generation, those in contact with AE speakers and those without any command of the language. Those first generation speakers in contact with AE speakers have a basic command of the language. For these Lorain Puerto Ricans, the retroflex [ɹ] infiltrated their phonology via AE influence.
Other members of this generation do not have any contact with AE speakers because of their lack of proficiency in the language. They are also aware of the negative prestige that lateralizing their [r]s carry in IPRS, so by using other alternatives instead, such as deletion and a retroflex [ɹ], instead of [l], they avoid the use of [l] in reading tasks. There are several ways a retroflex [ɹ] infiltrated in their phonology. Either, they are imitating the younger speakers of the community or they are being indirectly influenced by AE through contact with the AE influenced-LPRS of the first generation speakers already mentioned, eventually affecting their phonology.

The results raise several methodological issues in the operationalization and measurement of language contact. Some first generation speakers live longer in the United States, but have very little contact with AE, they usually have a very tight knit network and have few reasons to contact others outside their group. Thus, their language is more likely to have no direct influence of AE. However, there are members of the first generation who have more contact with AE. These first generation speakers have worked in the steel mills, the Ford Motor Company, and other jobs where they had no option but to speak English, or they made the conscious decision to speak AE, or speak Spanish mediated with AE or code switching. Another context where these speakers have more contact with AE is during their leisure activities when they are in contact with AE speakers in a more relaxed environment. Environments such as the flea market, church and shopping centers are among the typical places where speakers from both groups would meet. Another reason to use a retroflex [ɹ] is a result of their lack of proficiency in reading or writing in any language. They are neither proficient in reading or writing in English or Spanish, so they use a retroflex [ɹ] unintentionally while reading.

Then, when studying the linguistic behavior of a community, a researcher should not limit the data analysis to an examination of the different generations. Generations only tell part of the story, as the Lorain situation evidences. Thus, it is necessary to measure language contact in a community considering contexts of use; networks, i.e., speakers at work, leisure time, their relatives and friends; as well as looking at speakers’ language choices and attitudes to their language or languages and their communities, to have a more accurate measurement of language contact among speakers of a community.

References
