

Effects of Age and Gender on Liquid Assimilation in Cuban Spanish

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1. Introduction

1.1. Brief history and description of liquid assimilation

Generalized assimilation of the liquids in syllable final position is one of the phonetic features that linguists have claimed differentiates Cuban Spanish from other varieties of Caribbean Spanish. Almendros (1958) wrote, “La frecuencia y extensión que alcanza este fenómeno [la asimilación de las líquidas]...son quizás lo que en Cuba constituye un carácter más diferencial dentro de la zona del Caribe” (p. 149). Although the frequency and extension of liquid assimilation are exceptional in Cuban Spanish, the phenomenon is not exclusive to this variety; indeed, as a feature of the Andalusian variety brought to the new world by the colonizers, liquid assimilation appears in many varieties. In Andalusian Spanish, syllable final /r/ assimilated to a following /l/ or /n/, and /l/ assimilated to /r/, /t/, /d/, /y/ and /ñ/ (Alonso, 1961). Costa Sánchez (1984) suggested that in Cuba influence from the African substrate contributed to the extension of assimilation beyond the phonetic distribution and frequency of the Andalusian dialect.

The description of liquid assimilation outlined here is based on Guitart (1976, 1980). According to Guitart, the liquids can assimilate to any following consonant, and produce either complete or partial gemination. Harris (1985) points out that the geminates that arise from assimilation in Cuban Spanish are “highly unusual among Spanish dialects” (p. 129). For some liquid-plus-consonant pairs, assimilation changes the articulation of both consonants; thus, when /r/ assimilates to /d/, it produces the geminate [d̪ːd̪], which has an unreleased retroflex stop in the first segment, and in the second, another retroflex stop, instead of a fricative [ð], which commonly occurs in standard Spanish. For other liquid-plus-consonant pairs (e.g. before /b/, /d/, /g/, /m/, /ñ/, /f/¹ and /x/), complete gemination occurs and the liquid shares all of the features of the following consonant: [fomma] *forma*, [xoxxe] *Jorge*. Distinctions between /r/ and /l/ are neutralized when they assimilate – both /r/ and /l/ before /d/ are realized as [d̪ː], and sue[d̪ːt̪]e is either *suerte* or *suelte* (example from Guitart, 1980).

1.2 Regional variation

Liquid assimilation has been described as one of the most important phonetic features in the identification and classification of regional dialects of Cuban Spanish. Almendros (1958) wrote,

Quizás sean los característicos trastornos que afectan a las líquidas, lo que distingue de una manera más decisiva el lenguaje de la región occidental de Cuba del de la oriental. Nos referimos específicamente al fenómeno de la asimilación de las líquidas a cualquier consonante que las siga... (p. 148).

Assimilation was traditionally a feature associated with the western dialect region, which includes Pinar del Río, Havana, and Matanzas (i.e. Goodgall de Pruna, 1970; Guitart, 1976, 1980; López Morales, 1992), but Almendros (1958) pointed out that assimilation could also be found toward the central part of the island, although its frequency decreased as one traveled eastward, and disappeared in the easternmost part of the island. Choy López (1986) claimed that assimilation occurred in all

¹ In an acoustic study of assimilation, Costa Sánchez (1984) shows evidence for voicing of the first segment of the liquid before /f/: [vf] rather than [ff].

regional varieties, although at varying rates, tending to be more frequent in the western dialect than in the central one, but more frequent in the central one than in dialects to the east. What was once known as the western dialect region is no longer physically limited to western Cuba; the western dialect zone has been extended to include cities on the southwest coast of central Cuba based on studies that revealed patterns of liquid assimilation similar to those found in speakers from the western part of the island (Goodgall de Pruna, 1970). The regional variety discussed in this paper is located directly north of this area; this northwest part of central Cuba has been identified as belonging to the central dialect zone (Choy López, 1986).

1.3 Variants of (r) and (l)

As sociolinguistic variables, the liquids in syllable final position have the following variants in the regional variety of Cuban Spanish examined in this paper. The variants of (r) are: retention [karne] *carne*, assimilation [kaɾ̃ne] *carne*, lateralization [kalne] *carne*, and aspiration [kahne] *carne*. (l) tends to be more stable than (r) and has only two variants: retention [falta] *falta*, and assimilation [faɾ̃ta] *falta*. For both liquids, retention is the standard pronunciation, whereas the other variants are nonstandard.

1.4 Research questions

The first of two research questions addressed in this paper examines the degree to which assimilation has spread and advanced in the speech of individuals from the northwest part of central Cuba. The second question explores the gender distribution of assimilation for each liquid and compares the patterns to determine whether they are the same for both liquids.

2. Method

The study reported on here is based on data collected from 1995-1998 in Miami, Florida from eighteen individuals between the ages of 27-37 and 62-69; all were considered representative speakers. There were ten women, seven younger and three older, and eight men, seven younger and one older. Most of the individuals were socially connected in some way – they were siblings, spouses, or friends. Many, but not all, of them had known each other since birth, gone to school together, and even immigrated to the United States together. The younger participants had been in Miami, and the U.S., for varying lengths of time ranging from two weeks to four years. Two of the older participants had lived in Miami, and the U.S., for less than two years, and the others had lived in Miami for two years, but in the U.S. for a longer period of time. All the participants were born and raised in the northwest region of central Cuba; most of them were from a town just north of Santa Clara.²

The data used in the analysis were from conversations collected during small group exchanges that were designed with two goals in mind: the first was to reduce the anxiety the participants felt at being tape recorded, and the second was to use the peer group to force individuals to speak as naturally as possible. The participants treated the experience as *una visita*, in spite of the presence of the recording equipment, and they told mostly humorous stories, pragmatically appropriate in this speech situation, that revolved around their lives and daily activities in Cuba, their successful, and unsuccessful, attempts to flee the country – crossing the Florida Straits in rafts, being intercepted by the Coast Guard, surviving in the refugee camps at Guantánamo – and about their adapting to life in the US. Apart from allowing participants to converse freely, I also asked them to read a word list and reading passage, but those results are not discussed here. Between one to four hours of tape recordings were made during each session.

The phonetic analysis was carried out using instrumental and perceptual methods. Data analyzed perceptually was later verified acoustically using Praat. Statistical tests with SPSS and Goldvarb were

² Although collecting data outside the original community has many drawbacks, I did not have the possibility of carrying out this research within Cuba, and I had to use personal contacts to find individuals from this region of Cuba in greater Miami.

run on linguistic and social variables.³ The following discussion is based on the findings for the effect of age and gender on assimilation.

3. Results and discussion

3.1 Assimilation and age

When rates of assimilation were compared for the younger and older groups, a significant difference was found for both liquids. The findings for the effect of age are shown in Figure 1. For (r), the younger group had a rate of 29 percent, and the older group a rate of 8 percent ($p = .007$). Rates of assimilation for (l) were 34 percent for the younger group, and 7 percent for the older group ($p = .003$). These results suggest that assimilation has advanced significantly from one generation to the next for both liquids.

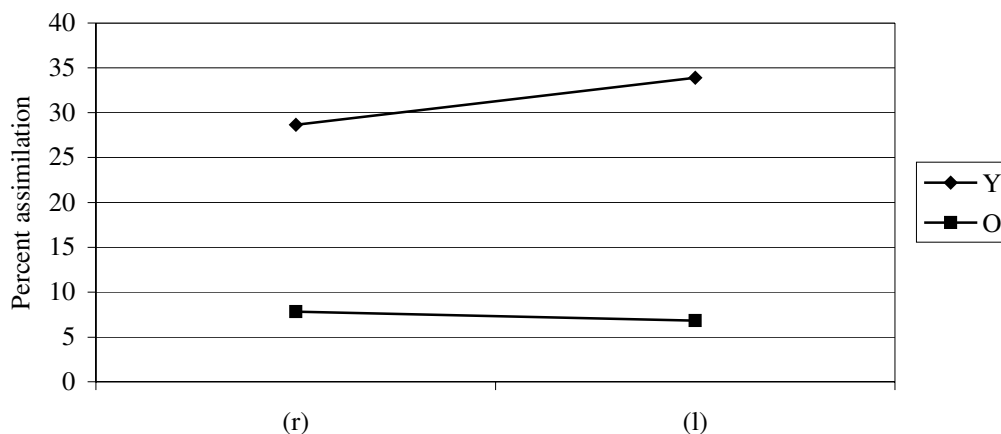


Figure 1. Rates of assimilation for younger and older speakers. (r) $n = 2103$ ($p = .007$); (l) $n = 1527$ ($p = .003$)

If this pattern of variation reflects a change in progress, then, it is a change from below: speakers are not aware of liquid assimilation in their own variety, although they grew up knowing that it was a feature of the dialect of Havana. Whenever I asked participants about liquid assimilation, they patiently explained to me that it was used in Havana and Pinar del Río, but not in central Cuba, and then they usually went on at length about lexical variation in different regions.

In order to confirm that the age difference observed here reflects a change in progress rather than the age-graded pattern of stable variation (Labov, 2001, pp. 76-78), we need to add information from younger generations.⁴ By including younger speakers, we should be able to gain a more complete understanding of the current status of the change, and determine whether it has continued to advance or not. The levels of assimilation observed here have not reached those reported for western Cuba: Concepción (n.d.) reports 67 percent assimilation of /r/ in speakers from Pinar del Río who are between the ages of 26-50, whereas in the current study, a much lower rate of 29 percent was found for younger speakers.

The participant with the highest rate of assimilation in this study was a young man whose assimilation reached 57 percent for (r) and 39 percent for (l). This young man had had extensive

³ The linguistic variables included features of the following consonant (place, manner, and voicing), the preceding sound, position in the word, and whether the syllable in which the liquid appeared was stressed or not. The social variables were generation, gender, and educational level.

⁴ In addition, individuals from different status groups should also be included in the analysis, but, as pointed out earlier, the limitations of gathering data outside the community make this difficult to accomplish.

contact with the western dialect because he had attended the university and worked in a city on the southwest coast of central Cuba, where, as noted earlier, assimilation is common. However, the rate of assimilation used by a second young man challenges the idea that this high rate of assimilation is simply a result of living in the western dialect zone. The two young men in question graduated from the same university with degrees in the same field of engineering, and they had both been employed as engineers in Cuba; they are cousins, and both sets of parents were respected members of the highest social status group in the same town. The similarities between these two young men end here: their use of the variants of (r) was very different. Whereas the first young man assimilated (r) in 57 percent and (l) in 39 percent of cases, the second young man only assimilated (r) in 28 percent and (l) in 28 percent of cases. This second young man preferred a competing variant of (r), the lateralized variant, another change from below, which he used at a rate of 22 percent, significantly higher than the 0-3 percent previously reported for this variety (i.e. Haden & Matluck, 1977; López Morales, 1970; Vallejo Claros, 1971). The first young man, on the other hand, did not have a single case of the lateralized variant of (r). Thus, it appears that factors beyond dialect contact contribute to the use of assimilation among younger speakers. Before I discuss factors that I believe contributed to the spread of assimilation to this variety, the findings for the effect of gender must be examined.

3.2 Assimilation and gender

According to Labov (2001) “gender is a differentiating factor in almost every case of stable social stratification and change in progress that has been studied” (p. 262). When the effect of gender on assimilation was studied, gender differences were found for both liquids, as shown in Figure 2. Men from both generational groups used more assimilation than women. The statistical analysis of the differences indicated that gender had a significant effect on assimilation of (r), but not on assimilation of (l). For younger speakers, the rate of assimilation was 37 percent for men and 22 percent for women, a difference that was statistically significant ($p = .03$). Assimilation of (l) was found in 36 percent of cases for men and 26 percent for women, but the difference was not statistically meaningful ($p = .080$). A similar pattern was found for older speakers: the gender differences for (r) assimilation were significant ($p = .024$), but for (l) they did not reach statistical significance ($p = .142$).

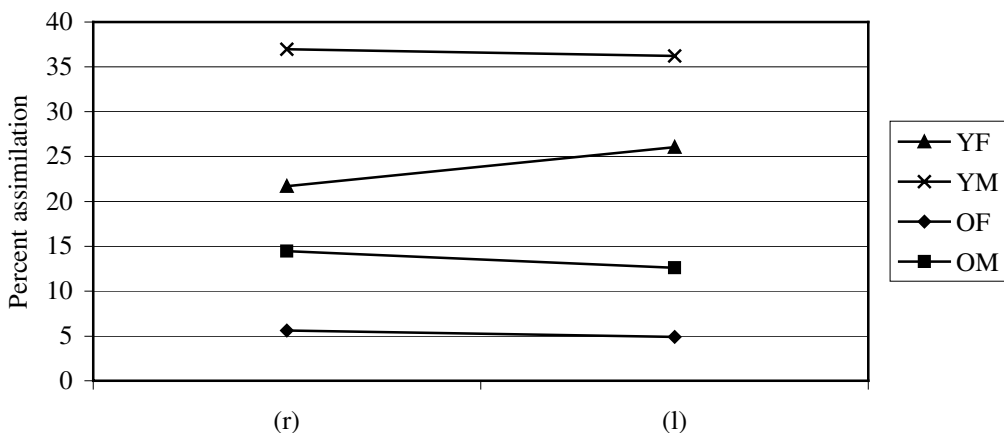


Figure 2. Rates of assimilation used by men and women in the younger and older age groups. Younger (r) ($p = .038$), (l) ($p = .08$). Older (r) ($p = .02$), (l) ($p = .142$)

Higher rates of assimilation for men from both age groups suggest that men have led this change. If we consider the rights and obligations of men and women at the time the change appears to have been starting, we can explain why men led this change. Men had more opportunities for contact with the dialect of Havana because social norms allowed them more geographic and social mobility. It was

common for men from the provinces to travel to Havana for extended periods of time to attend private schools or the university, to work, to live, or for shorter stays to visit family and friends. Women, on the other hand, were not granted the same mobility and access to Havana. Liquid assimilation, as a nonstandard feature that defined the speech of the most important urban area in Cuba, would have been invested with covert prestige, and it would have appealed to men from provincial towns who wished to align themselves with, and project to others, the positive qualities associated with Havana, and highlight the social privileges granted to men. The contact men were able to have with the Havana dialect would have contributed to the spread of assimilation and to its development in the speech of men. What remains to be explained, then, is how women began to participate in this change. A model of linguistic change from below that is led by men has not yet been suggested (Labov, 2001, pp. 307-9).

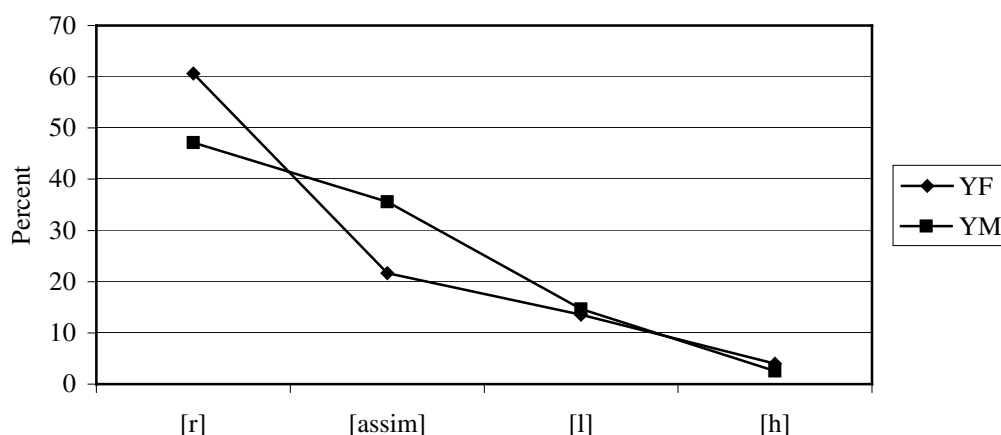


Figure 3. Use of the variants of (r) by younger females and males. (N = 2103; [r] $p = .08$, [assim] $p = .04$, [l] $p = .84$, [h] $p = .35$)

When the four variants of (r) were examined to determine the effect of gender, only assimilation showed a significant effect. As shown in Figure 3, for younger speakers, a statistically significant effect was found for assimilation ($p = .04$), but the effect was not significant for the standard variant [r] ($p = .08$), the lateralized variant [l] ($p = .84$), or the aspirated variant [h] ($p = .35$). These findings were surprising because it was expected that the lateralized variant would show a gender difference because of its historical role as a socially stigmatized variant associated with the lowest status groups. Although women used more of the standard variant, it was expected that they would use significantly higher rates than men. Assimilation, then, was the only variant of (r) that showed significant gender differentiation.

Different findings emerged from the analysis of the variable (l). In contrast to (r), the effect of gender on assimilation was not statistically significant. Figure 4 shows the rates for the two variants of (l). Although women used more of the standard variant than men, and men used more assimilation than women, a significant difference was not found between men and women for either variant ($p = .08$).

I would like to suggest that the gender differences described here for the variables (r) and (l) arise because assimilation of (r) is more salient than assimilation of (l). Perhaps we can trace this salience to the historical distribution of assimilation: in Andalusian Spanish assimilation of /l/ occurred in more phonetic environments than assimilation of /t/. In Cuban Spanish, then, generalized assimilation of /l/ is socially unmarked, but the same generalized assimilation of /t/ is marked. Furthermore, it may also be the case that (r) is more salient because it tends to have more socially significant variants associated with it. Indeed, in this variety (r) has three nonstandard variants, including the stigmatized lateralized one; and in other varieties of Caribbean Spanish, (r) also has socially significant variants (i.e. the velar fricative in Puerto Rican Spanish [López Morales, 1987], and a vocalized variant in Dominican

Spanish [Alba, 1992]). Women use more assimilation of (l) because it is less salient and less socially marked, and its association with male speech is weaker.

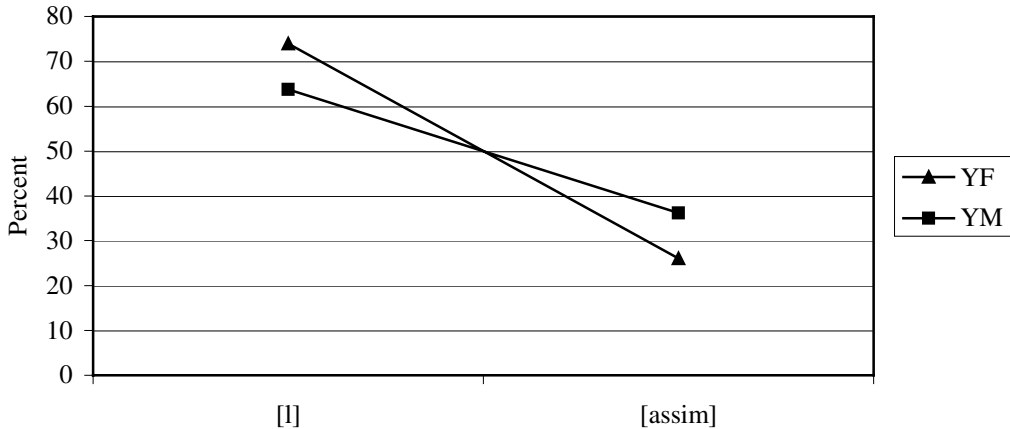


Figure 4. Gender differences for variants of (l) for younger speakers. (N = 1527; [l] $p = .08$, [assim] $p = .08$)

4. Conclusion

This paper addressed two research questions. The first question investigated the degree of assimilation in the speech of individuals from the northwest part of the central region of Cuba. Significant differences were found in the rates of assimilation used by older and younger speakers, which indicated that assimilation had spread to the area, and actively progressed in younger individuals. As suggested earlier, younger generations must be studied if we are to confirm that the pattern observed for older and younger speakers is produced by change in progress rather than age-grading. My informal observation of assimilation used by the children of the individuals studied here suggests that these patterns of assimilation do not reflect age-grading, but this matter must be studied empirically.

The second research question explored in this paper examined the gender distribution for each liquid and compared these distributions to examine whether the patterns were similar. The results revealed that men used more assimilation than women, and that the effect of gender was significant for the assimilation of (r), but that it was not significant for (l). It was argued that women use less (r) assimilation because it is more salient and socially marked than assimilation of (l).

Further research on liquid assimilation must be carried out in order to test the observations made here and expand our understanding of this important feature of Cuban Spanish.

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