

**¹The social stratification of /r/ in New York City:
Labov's Department store study revisited**

Patrick-André Mather
Universidad de Puerto Rico / New York University

Abstract: This study is a methodological replica of Labov's (1966/2006) original study of the social stratification of /r/ in three New York City department stores, conducted among 169 participants in June of 2009. Results of the 2009 study are compared with Labov's original survey, and also with Fowler's (1986) replica. Although the distribution patterns of /r/ remains the same as for the two previous studies in terms of both stylistic, social and phonological variables (word-final versus pre-obstruent), there have been significant increases in the overall percentages by some 10 to 20%, and there are important differences in terms of the age distribution, since the 2009 study suggests that younger speakers use the r-less variant considerably less than older speakers, contrary to Labov's original survey. In addition, although African American informants use less word-final /r/ than Whites, especially in pre-obstruent position, they nevertheless follow the general pattern of stylistic and social differentiation according to the store, suggesting that African Americans are moving toward greater integration within the New York City speech community.

KEYWORDS: /r/, regional dialect, variation, style, African American English, New York City.

1.INTRODUCTION

Historically, native New Yorkers vocalize /r/ in coda positions, following the pattern of the prestige dialects in England. However, over the past century, the prestige norm in the United States, based on Mid-Western American English, has favored rhoticity in all positions, gradually displacing traditional New York City pronunciations.

Over the past 50 years, William Labov has investigated language change and in particular the role of different social factors, including age, social class, and gender. He has found that language change can be conscious or unconscious, unconscious being when speakers change their linguistic behavior without being aware of it, and conscious being when they are aware of changes. Conscious language change is termed « change from above », whereas unconscious language change is “change from below”.

In 1962, Labov (1962/1966) completed the “New York department store study”, which examined overt prestige involving both class and gender. He investigated the pronunciation of post-vocalic /r/ in New York City speech, in words like ‘fourth’ and ‘floor’. He carried out this experiment by walking into three different department stores representing different social classes, namely Saks (upper middle class), Macy's (lower middle class) and S. Klein (working class). In a rapid anonymous survey, he asked clerks about the location of specific items that he knew were on the fourth floor, in order to elicit the words ‘fourth floor’ which includes two instances of post-vocalic /r/ . He then pretended he had not understood, and asked employees to repeat their answers to see if the pronunciation changed, as their speech became more careful.

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His findings were that the employees from Saks used rhotic /r/ most, showing that the current overt prestige form in New York City favored rhoticity. Those from Klein's used it least since they identified more with their working-class clientele. Finally, employees at Macy's showed the greatest upward shift of pronouncing "floor" with a constricted /r/ when they were asked to repeat the answer. Labov (1966) found that the pronunciation of /r/ increased both socially and stylistically, and concluded that the more careful the speech, the more likely the /r/ was to be pronounced. He also found that the overuse of /r/ (hypercorrection) was most common among the lower middle class (Macy's), since employees were most likely to be aware of prestige forms, and would use them in careful speech, imitating upper middle class speech.

As Labov (2009:43) argues, "the principal stratifying effect upon the employees is the prestige of the store, and the working conditions. Wages do not stratify the employees in the same order. On the contrary, there is every indication that high prestige stores such as Saks pay lower wages than Macy's."

The department store study has received a great deal of attention over the past decades, and has been replicated at least twice – first in 1986 by Joy Fowler, a New York University linguistics major. This paper presents the results of a methodological replica of the study, conducted in June 2009, and compares them with both previous surveys. In the following sections, the methodology of the survey is presented, followed by the results of the 2009 study and by a comparison with the two previous studies, and by a discussion of on-going language change in New York City English based on the variables of age, gender, ethnicity, and social class.

2.METHODOLOGY

The 2009 survey of New York City department stores closely follows the original methodology used by Labov in 1962, which is the rapid anonymous survey.

Quantitative studies on sociolinguistic variation have evolved in at least three different directions over the past decades: Labov and early sociolinguists were interested in the large-scale variation of (mostly phonological) variables, such as rhoticity in New York City. Typically, these were large survey studies of geographically defined communities, with variables as markers of primary social categories like class, gender, age, ethnic group, etc.

Later, a second wave of studies focused more on social networks, and criticized Labov's (1966) view of a city as a single speech community. For example, Milroy (2002: 549) states that "an individual's social network is straightforwardly the aggregate of relationships contracted with others, and social network analysis examines the differing structures and properties of these relationships." Thus, beginning in the 1980s, many sociolinguists focused on ethnographic studies of geographically defined communities.

A third wave of variationist studies took a more stylistic perspective, focusing on ethnographic studies of communities in practice. Here, variables are viewed as indices of stances and activities, and styles are used by speakers to construct a social persona. This particular wave is closely connected to the work of Eckert (1988, 1989, 2000) in Detroit. In particular, she showed that linguistic variation is not only linked to social group membership, and that social practices also play a major role, for example urban engagement (e.g. cruising – driving around in a car for purely social purposes) and institutional engagement (e.g. participation in extracurricular activities at school).

Each wave of variationist research represents very different approaches, which are not mutually exclusive. The choice of one or the other approach depends crucially on the researcher's goal, but also on practical and time constraints. One major advantage of the brief anonymous survey used by Labov (1966) is that it neutralizes the "observer's paradox". In other words, since participants are not aware that their linguistic behavior is being observed, they are less likely to modify their speech, and one obtains more spontaneous, naturalistic results.

In June 2009, the author of this article conducted brief, anonymous interviews of 169 employees in four Manhattan department stores, namely Saks, Macys Herald Square, Loehmann's, and Filene's Basement. The original Labov study had used S. Klein as the working-class store, unfortunately it closed down in the 1970s so both Fowler (1986) and the current study had to find suitable substitutes. Filene's basement is located in Union Square, a stone's throw from the original Klein department store, and Loehmann's is located on 7th Avenue near 17th Street, and caters mainly to a middle and lower-middle class clientele. Both lower-class stores were surveyed in order to obtain a representative sample, since they employ very few floor clerks compared to larger stores like Macy's and Saks. All four stores used in this survey had a fourth floor, which is of course crucial given the questions asked to employees.

In terms of the field method, the interviewer approached each employee in the role of a customer asking for the location of a specific item or department, which the interviewer knew very well to be on the fourth floor of the store. When the interviewer asked for example "Excuse me, where is the Ben & Jerry's?" (at Macy's), the employee normally answered "Fourth Floor". The interviewer feigned not to understand the response and said "Excuse me?", to which the employee replied "Fourth Floor", usually with emphatic stress. The interviewer then walked away and, out of the view of the informant, wrote down the values for each of the four occurrences of /r/ as [r-1] for the rhotic variant and [r-0] for the vocalized variant, as well as the following independent social variables : store, occupation, floor within the store, sex, race, age, and foreign or regional accent.

A total of 169 short interviews were conducted, 56 in Saks, 88 in Macy's, and the remaining 25 in Loehmann's and Filene's Basement. Seventy percent of informants were women, 30% men. Forty-five percent were aged 20 to 35, 40% aged 36 to 55, and the remaining 14% from 56 to 70 years. Finally, 42% of the respondents were White, 36% African American, 12% Hispanic, 5% Asian, and 4 % other/undetermined. It should be noted here that, given that the survey was anonymous, the interviewer could not ask the informants any questions about their age or ethnic identity, so the classifications are somewhat impressionistic. The following sections present the results of this survey and a comparison them with Fowler (1986) and Labov (1966).

3.RESULTS

3.1 Overall stratification of /r/ by store

In terms of the overall use of the rhotic variant (noted as [r-1]) in all four positions, the following table and graph illustrate a steady increase in rhoticity over the past five decades in both Macy's and Saks, from 20% to 43% in the former and from 29% to 54% in the latter. There is no such change in the lowest ranking department stores, although here the results are not as reliable since, as we already mentioned, in both subsequent studies the original store had closed.

Table 1 - Percentage “all-r” by store, in all three studies

	Labov 1962/1966	Fowler 1986	Mather 2009
Klein/May’s/Filene’s	4% all r	7% all r	5% all r
Macy’s	20% all r	24% all r	43% all r
Saks	29% all r	39% all r	54% all r

A similar increase in rhoticity is illustrated in figures 1 and 2: In Labov's (1966) study, the maximum value of [r-1] (position 4) was below 65% at Saks, whereas by 2009 the frequency of [r-1] had increased to over 80%, suggesting that the phonetic change to full-r is almost complete in the highest ranking store, Saks. The increase is more modest at Macy's (from 60% to 65%) and non-existent for the lowest-ranking stores (Klein, Filene's and Loehmanns). In Fowler's 1986 survey, the maximum values for [r-1] were 71% at Saks and 66% at Macy's. It should also be noted that the pre-obstruent values for [r-1] (positions 1 and 3) have increased even more dramatically than the word-final values (positions 2 and 4).

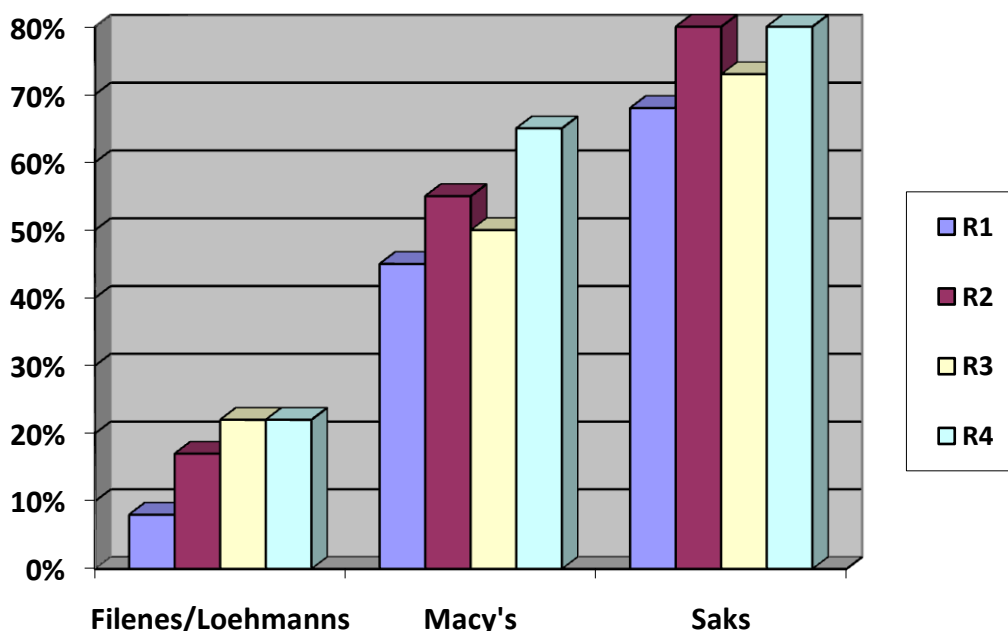
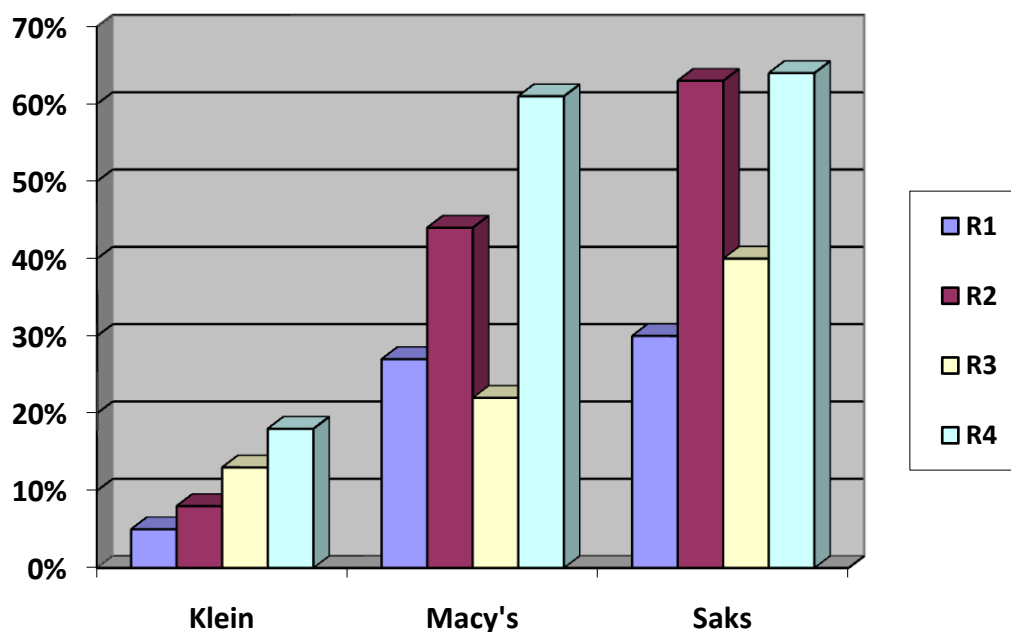
Figure 1 – Mean value for each [r], by store in the 2009 re-study

Figure 2 – Mean value for each [r] by store in Labov (1966)



Figures 1 and 2 illustrate the effect of two independent variables: store, but also the phonological environment (pre-obstruent for R1 and R3, versus word-final for R2 and R4). If Labov's third hypothesis is correct, then the greater use of [r-1] by employees in Saks than those in Macy's or Klein reflect a social stratification of this variable, along the same lines as the original 1962 study, though the overall percentages have increased. For Saks, the percentage of [r-1] for 'floor' has increased to 80% compared with just above 60% in the original study.

The position of /r/ (word finally, or before the obstruent [θ] in 'fourth') also seems to have a significant effect on the realization of [r], apparently disfavored in word-final consonant clusters. The effect of the phonological environment on the production of [r] has been documented in studies of African American English, including Blake, Shousterman and Kelley (2009) who argue that a following interdental fricative like [θ] disfavors [r-1] because it is closer to the front of the mouth.

Correlations were found in the 2009 study between the use of [r-1] and store, as illustrated in tables 2. In table 3, there is a reverse correlation since Saks was store number 4, Macy's store number 3, and so on.

Table 2 – Correlation between "all r-1" and store (2009 survey)

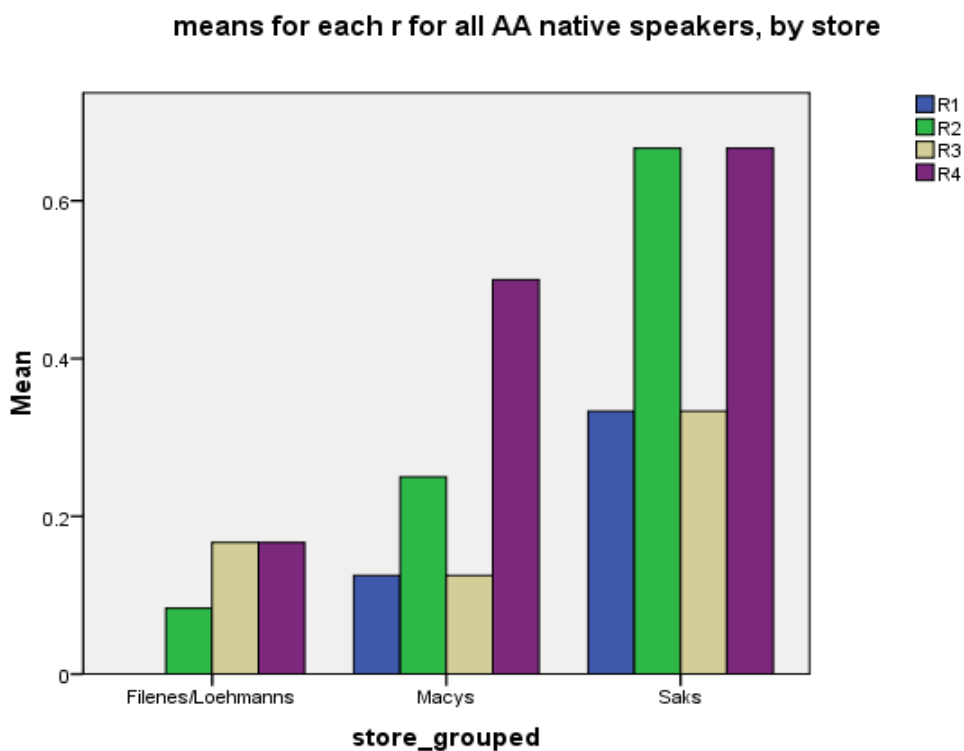
Correlation between "all r-1" and store		
	store_grouped	Percentage_all_r
Pearson Correlation	1.000	-.404**
Sig. (2-tailed)		.000

N	139.000	139
Pearson Correlation	-.404**	1.000
Sig. (2-tailed)	.000	
N	139	139.000
**. Correlation is significant at the 0.01 level (2-tailed).		

3.2 The effect of race

In terms of ethnic/racial differentiation, figure 3 below illustrates that although African Americans follow the same general pattern of rhoticity as the overall population in terms of social stratification and position (word-final versus pre-obstruent), it is worth noting that the maximum values for [r-1] are significantly lower, since they reach a maximum value of 50% at Macy's and under 70% at Saks (against 60% and 80% respectively for the overall values irrespective of race or ethnicity). African Americans also vocalize the [r] in coda position before an obstruent (in 'fourth') much more than the general population. We discuss possible reasons for this in section 3.3. In Labov's original study, 12% of African American employees at Macy's used [r-1] in all positions, 35% in some positions and 53% never pronounced the [r] in coda position.

Figure 3 – Mean value for each [r] for African American employees, by store (2009)



This pattern is confirmed by a T-test which was performed to compare the means for "percentage all-r" among Whites versus African Americans. As indicated in table 2 below, the difference between the two groups is significant at a 95% confidence interval. The group included 71 Whites and 61 African Americans.

Table 2 – T-test for race/ethnicity

Group Statistics					
	Race	N	Mean	Std. Deviation	Std. Error Mean
Percentage_all_r	1.00 White	71	.4225	.74951	.08895
	2.00 African American	61	1.2295	.82449	.10556
Independent Samples Test					
		t-test for Equality of Means			
		95% Confidence Interval of the Difference			
		Lower	Upper		
Percentage_all_r	Equal variances assumed	-1.07810	-.53584		
	Equal variances not assumed	-1.08023	-.53371		

3.3 The effect of age

Labov's (1966) results showed an increase in use of [r-1] at Macy's among older speakers: 21% of speakers 15 to 30 years old used all r-1, and this percentage increased to 39% for the 55-70 age group. What is interesting in Labov's data is that while at Saks, the new norm (rhoticity) is most evident in the speech of the youngest subjects, at Macys the constricted /r/ is more prevalent among older speakers. This suggests that at the time of the 1962 study, "members of the lower middle class only become aware of the new norm as their social contacts and social awareness expands as they grow older. Hence they begin to shift toward the new norm at a later age" (Chambers et al., 327-328). Labov (1994: 86-94) reports that in Fowler's 1986 re-study, there is the same pattern of age-grading as in the original study, although the overall rate of r-fulness has increased over 24 years. By contrast, the 2009 survey suggests a reverse correlation, with younger speakers favoring rhoticity in all three stores, and older speakers preferring the r-less pronunciation more frequently, as illustrated in figure 7 and 8 below. At Macy's, the difference is especially significant between the 35 to 55 years of age and the 55 to 70 years of age group, whereas at Saks the difference is more gradual between each age group.

Figure 4 – Mean value for R1 (“fourth”) by age group (2009 study)

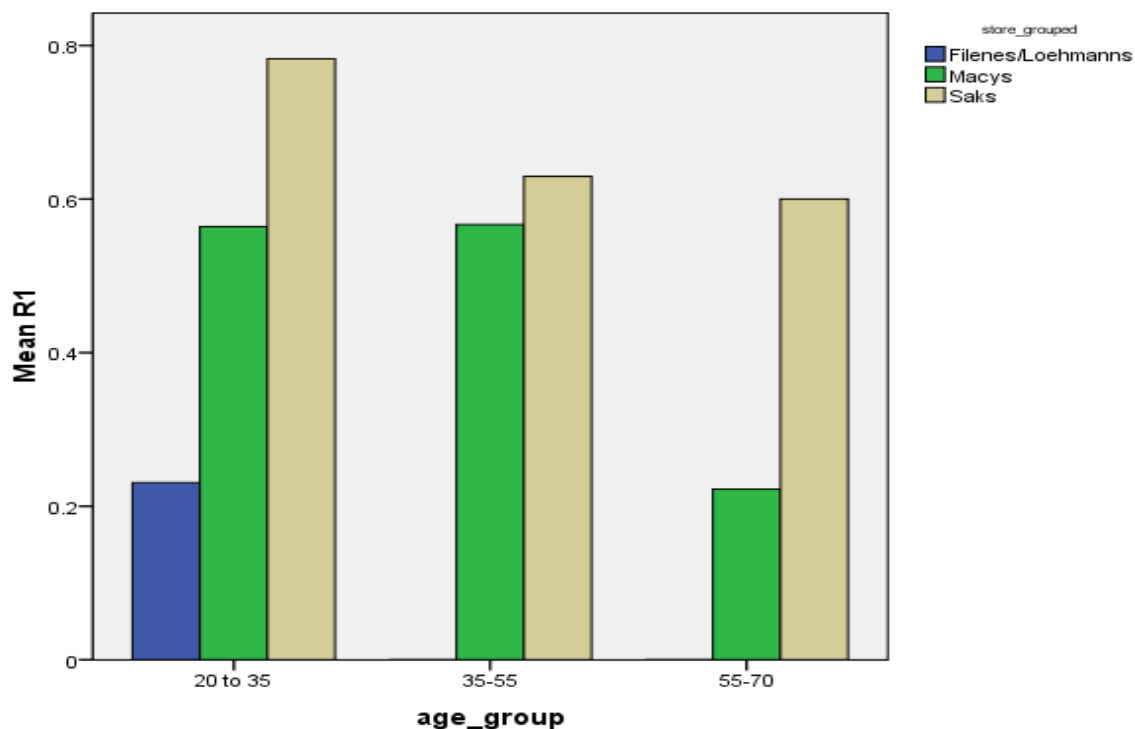
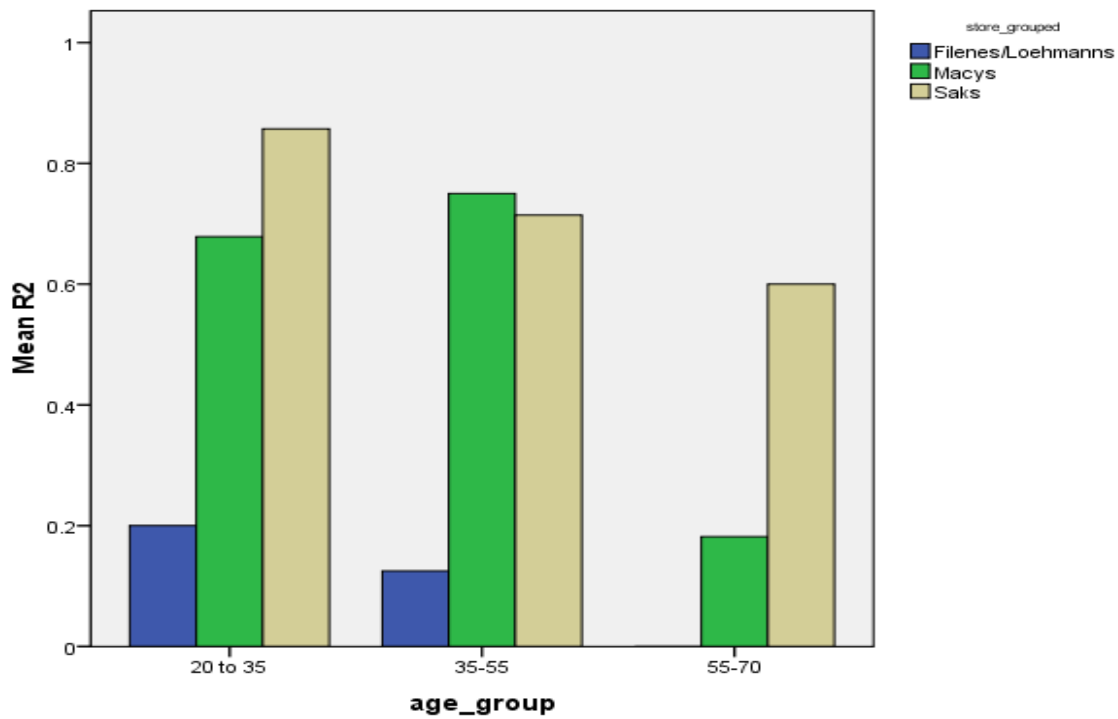


Figure 5 – Mean value for R2 (“floor”) by age group (2009 study)



In table 3 below, a T-test was performed to determine whether there was a reliable difference in mean "all-r" between the youngest group (20 to 35 years of age) and the oldest group of employees (55 to 70 years). Younger speakers favor rhoticity in all positions in almost 60% of cases, whereas among older speakers the percentage is under 10%.

Table 3 – Correlation between age group and "all r-1"

Group Statistics					
	age_group	N	Mean	Std. Deviation	Std. Error Mean
Percentage_all_r	1.00 20 to 35	77	.6494	.82344	.09384
	3.00 55-70	24	1.2500	.89685	.18307

Independent Samples Test			
		t-test for Equality of Means	
		95% Confidence Interval of the Difference	
		Lower	Upper
Percentage_all_r	Equal variances assumed	-.99080	-.21050
	Equal variances not assumed	-1.01790	-.18340

To conclude this section, there appear to be clear correlations between overall use of [r] and the variables of age, store, and race: In the 2009 study, (1) younger speakers tend to pronounce [r] in coda position (both pre-obstruent and word-final) more frequently than older speakers in all stores, contrary to the original 1962 survey and the 1986 re-survey; (2) upper and middle-class speakers favor rhoticity more than lower-middle class informants; as they did in both previous surveys; and (3) African Americans overall use less [r-1] than White speakers, and also avoid [r] in pre-obstruent positions, although they seem to follow the same general social stratification in the use of [r] as the general New York City population.

4. DISCUSSION

4.1 Real-time versus apparent-time studies.

Most studies on language change in progress are apparent-time studies, for obvious reasons: one does not always have the time or luxury of waiting 25 or 50 years to complete a study on language change. For this reason, most studies have used apparent-time constructs as a useful alternative to real-time studies. The problem with apparent-time studies is that speakers, throughout their lifetimes, often may sociolectal adjustments, as evidenced by Labov's data on speakers at Macy's in 1962, who tend to adopt more prestige values as they get older. Given that

older speakers do not necessarily speak as they did when they were teenagers, an apparent-time survey of three generations of speakers will not necessarily reflect actual changes in progress.

Taken together, the three surveys mentioned above (Labov's 1962 study, Fowler's 1986 re-study, and the 2009 survey) constitute a good example of a real-time study of phonetic change in progress. Though this type of evidence can provide clear insight into the social mechanisms of language change, it also has some drawbacks. There are issues of comparability, sample design and demographic changes in the target population, including in the Department store study. For example, as mentioned in the introduction, the original working-class store, Klein, closed in the 1970s, so that Fowler (1986) had to find a suitable substitute, May's. Again, this store closed in the 1990s, and in the 2009 study two alternate working-class stores with fourth floors had to be chosen, namely Filene's Basement on Union Square, and Loehmann's on 7th avenue. Although this may first appear as a major drawback, in fact the most interesting results in terms of social and age stratification are found in the lower and upper middle class stores, namely Macys and Saks, both of which still exist in the same locations. A second issue has to do with demographic changes in the surveyed population: in 1962, most employees in all three stores were White, while by 2009 almost all employees at the working-class stores, and most employees at Macys, were either African American or Hispanic. In other words, the ethnic and linguistic makeup of the informants has changed, so to what extent are the three studies comparable, even though they were conducted in the same stores with the exact same methodology (the rapid anonymous survey)?

In sociolinguistic surveys on language contact and language change, the notion of "place" is a central concept in explaining linguistic behavior. Speakers tend to adopt the norms of the communities they live in, irrespective of the linguistic norms of their parents or families. In this sense, surveys on language change are not concerned with changes in individual linguistic behavior, but rather on changes in shared social norms and in the social stratification of these norms over time. In other words, it is irrelevant whether the actual speakers interviewed in the 1962, 1986 or 2009 (re-)studies are the same, or even belong to the same ethnic group. What matters is that they live and work in the same community, in the same place, and therefore are representatives of that specific community, even as the ethno-linguistic makeup of that community changes over time. It has often been said that ethnic minorities in the United States (for example African Americans or Hispanics) are not full participants in changes in progress. However, as explained in the following section, recent studies on New York City English suggest otherwise.

4.2 Phonetic changes in NYC English over the past 50 years

As stated in the introduction, this study is a methodological replica of two identical surveys conducted in 1962 and 1986. A comparison of the results reveals both similarities and differences between the three studies. The 2009 study shows the same general pattern of social and stylistic stratification of [r] as the original 1962 survey, since use of [r-1] is higher in emphatic contexts and also in upper-middle and upper class stores, than in working-class stores. Also, all three surveys suggest that the pre-obstruent position ("fourth") disfavor the use of [r] in most speakers, compared to word-final position ("floor").

However, the 2009 study suggests that important changes have occurred over the past 5 decades. First, the overall use of [r] has increased dramatically, especially in the high-end stores like Saks where the highest value is over 80%, compared with 60% in 1962. Second, while both

Labov's original study and Fowler's 1986 re-study found that at Macy's, older speakers used more [r-1] than younger speakers, the 2009 survey reveals an opposite effect, suggesting that the variable use of [r] is indicative not only of social stratification, but also of a phonetic change in progress which is almost complete at Saks, where [r-1] is used in approximately 80% of cases. Again, while the new age pattern what we might expect of a maturing language change, the original pattern was the reverse for lower-middle class speakers.

Another interesting result of the 2009 study is a complex interplay among the variables of race, social class and phonological environment in the use of [r] by African American employees. On the one hand, African Americans tend to vocalize [r] in coda positions more than Whites, and are also more sensitive to the phonological environment since they use [r-1] twice as much in word-final position ("floor") than in pre-obstruent positions ("fourth"). On the other hand, as figure 4 illustrates, African Americans display the same social stratification in the use of [r] as other groups, since at Saks they mean value for [r-1] in this group is above 50%, whereas at Loehmanns and Filene's Basement the value is well below 20%.

The general increase in rhoticity quantified in this study is confirmed by other studies involving fieldwork in New York City. For example, Becker (2006: 646) notes: "Completely non-rhotic as late as 1890 (Babbitt 1896), NYCE is slowly becoming rhotic as part of a general rhotacization of all American English dialects that were non-rhotic [...] In 1966, Labov found rates of [r-1] as low as zero for working-class speakers in casual speech. Today, the Lower East Siders are, on average, 36 percent rhotic." However, the increase in rhoticity is slower in New York City than in other regions of the United States, so that use of [r-1] or [r-0] still represents a social class marker, and is also used to express place and social identities, with speakers shifting from one pronunciation to another depending on the topic or interlocutor.

There is also evidence (e.g. Becker & Wong 2008, Mather 2010) that other features of NYC English are slowly disappearing, in particular the so-called "short-a split" identified by Labov (1966). In particular, Becker & Wong (2008: 9) show that what Labov described as a phonemic split would probably be better described as an allophonic variation, as younger speakers of NYC English (including Whites, African Americans and Asian Americans) no longer raise or tense short /a/ in all contexts described by Labov (2006). Similarly, Mather (2010) has found that recent Puerto Rican immigrants to New York City do not acquire the traditional NYC short [a] split, though they maintain other features such as the raising (and ingliding) of long [o] in 'caught' or 'coffee'.

Labov's Department store study and the subsequent re-surveys at 24-year intervals are significant both as methodological tools – the rapid anonymous survey – and as real-time studies of phonetic change in New York City. The overall increase in rhoticity in New York City is symptomatic of a change in the United States as a whole over the past one hundred years, and is also an indication that some features of New York City English are slowly disappearing as New Yorkers adopt standard North American linguistic patterns. On the other hand, as recent studies have shown (e.g. Becker 2009), distinctive phonetic features such as post-vocalic /r/ remain important markers of social identity in New York City, as its inhabitants continue to negotiate between overt prestige (in our case, rhoticity) and cover prestige – the sense of belonging to a local community.

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