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Linguistic Variation and Change in Atlanta, Georgia

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Abstract

In spite of its unique position as a fast-growing urban metropolis in the heart of the South, little research has been conducted to uncover the effects of Atlanta's rapid growth on the speech of its native population. This paper reports on variation and change in the speech of Atlanta, Georgia, which has occurred as a result of this growth, focusing on the current state of the Southern Shift. The evidence presented is limited to key vowel features, especially /ay/-monophthongization and the front chain shift. Drawing on regional data found in past projects (e.g., Labov et al. 2006, Montgomery and Nunnally 2008, Feagin 2003, Thomas 2001) and utilizing a variety of sociolinguistic methods, this paper analyzes a data set in which both apparent-time changes and variation can be observed.

In order to more fully capture Atlantan speech, two different types of interview are presented. The first is a rapid and anonymous interview of 59 speakers which focuses on the pronunciation of /ay/ before voiced consonants. These interviews show black speakers to have a significantly higher rate of /ay/-monophthongization than white speakers, and that overall rates of /ay/-monophthongization vary between different neighborhoods. The second type consists of a longer conversation-style interview followed by a reading passage, for which data from five white native Atlantans is presented. Acoustic analysis of these interviews shows that the older speakers use more features associated with the Southern Shift than the younger speakers, but that none of the speakers exhibit a fully-shifted vowel system.

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1 Introduction

As the major metropolitan center of the Southeast, Atlanta, Georgia, is a hotbed of linguistic variation and change. Located in the heart of the South, only a few hours away from both the coast and the Appalachian Mountains, Atlanta finds itself at the intersection of several traditional varieties of Southern English, well within the region thought to be undergoing the systematic changes of the Southern Vowel Shift. However, any linguistic relation the city has to the South has been confounded by the massive amount of immigration to Atlanta since the 1970s. In addition to the large number of northerners who have recently been attracted to Atlanta because of its promises of a warmer climate, lower crime rates, new business and job opportunities, and lower cost of living, there is also a rapidly growing international community within the city. By the 1990s there were sizeable populations of Hispanic, Jamaican, Korean, and Southeast Asian immigrants living within the metropolitan area (Roth and Ambrose 1996). Atlanta's selection as the host city for the 1996 Olympic Games further strengthened its international reputation, and opened its doors to tourism.

In spite of the important role it has played in the history of the South, Atlanta now seems to be more closely identified with the modern South than with old southern traditions. The city government's website proclaims that "Atlanta has become the best example of the New South, a fast-paced modern city proud of its heritage." It is an urban metropolis, well on its way to rivaling the northern cities in size: compare Atlanta's 416,474 residents in 2000 to Boston's 589,141 (U.S. Census Bureau). Yet it is still a relatively young city; in 1910, when New York had already well surpassed the million mark, Atlanta had only around 150,000 residents, which was still five times larger than it had been thirty years earlier (Roth and Ambrose 1996). Because of the constant movement into and out of Atlanta since the Civil War, the city's speech has not been able to coalesce into a recognizable set of characteristics in the same way that is found in the northern cities. According to one resident interviewed in this study, Atlanta *used* to have a distinctive sound, but it seems to have been severely diluted by the influx of newcomers and the exodus of white native Atlantans.

While there have been several studies of speech conducted in and around Atlanta in recent years (e.g., Kretzschmar, forthcoming) there have been none that describe the dialect of Atlanta in the same depth that the dialects of Charleston, SC (Baranowski 2007), or Anniston, AL (Feagin 1979), have been, for example. This gap in the literature is no doubt due to the complexity of Atlanta's linguistic situation combined with the sheer size of the population and level of effort that would be required to coordinate a truly representative survey of dialect in Atlanta. It is not within the scope of this project to attempt a complete description of Atlantan speech; rather, this research focuses on the status of a few key phonological features and may perhaps serve as a pilot study for more exhaustive future research. Accordingly, this paper focuses on the phonological variables associated with the Southern Shift (Figure 1), particularly /ay/-monophthongization, in order to determine the extent to which Atlanta is participating in the linguistic changes of its region.

2 Methods

In the Atlas of North American English (ANAE), Labov et al. (2006) define the South linguistically as the region characterized by "the active rotation of vowels termed the Southern Shift," a pattern which they propose is triggered by glide deletion in /ay/ (see Figure 1). The Southern Shift appears to have become widespread only after 1875, and it was not a general feature of Southern American English until World War II (Tillery and Bailey 2003). However, Labov et al. report that the Southern Shift has been receding in recent decades.

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The data presented in this paper was collected in two ways, in order to incorporate both breadth and depth into the analysis. The first phase of data collection concerned itself solely with /ay/-monophthongization, the first stage of the Southern Shift, and consisted of a broad random survey of Atlanta speech. Rapid and anonymous interviews were conducted in grocery stores across Atlanta, during which the /ay/ variable was elicited by asking shoppers for the time between 4:45 and 5:30pm. These interviews resulted in data from 59 speakers, collected in five different neighborhoods across Atlanta.

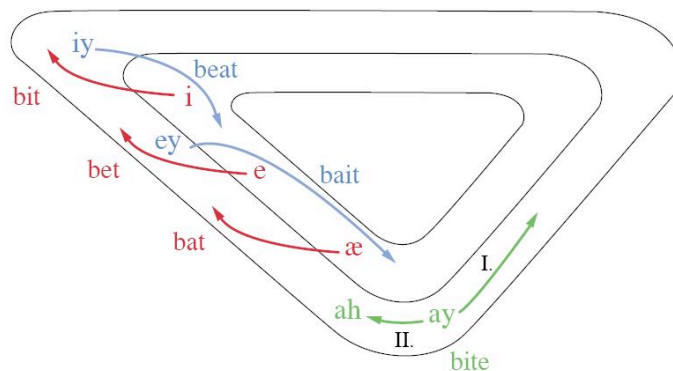


Figure 1: The Southern Shift.

The first stage of the Southern Shift, /ay/-monophthongization, triggers two subsequent stages. As shown in Figure 1, Stage 2 of the Southern Shift involves the complete reversal of /ey/ and /e/, while Stage 3 involves the reversal of /iy/ and /i/. The second phase of this study involved more in-depth interviews with a small pool of five informants, selected with the goal of investigating in greater depth the status of the Southern Shift among white native Atlantans. All five interviews were acoustically analyzed for the characteristic rotations in the front vowel system which make up the three stages of the Southern Shift. The vowel measurements presented here were taken from a reading passage read aloud during the interview, and have not been normalized.

3 Rapid and Anonymous Data

SEX	Number	Percent
Male	30	51%
Female	29	49%
RACE		
European American	30	51%
African American	27	46%
Other	2	3%
AGE		
20-30	28	47%
30-50	18	31%
50+	13	22%

Table 1: Rapid and anonymous data, demographic breakdown.

Of the 59 speakers interviewed during the rapid and anonymous portion of this study, 36% (n=21) used monophthongal /ay/, while 64% (n=38) used diphthongal /ay/. This statistic alone only tells us that even though it is not used by a majority of speakers, a substantial amount of glide deletion, a characteristic of Southern English, has been observed in Atlanta. A far more interesting picture can be gained by breaking the data down according to demographic groups, as follows.

3.1 Race

By far the most significant demographic difference found in usage of monophthongal /ay/ was between speakers of differing races. The data set consists of 59 speakers, of which 30 were white, 27 were black, 1 was Asian, and 1 was Hispanic. Figure 2 shows the proportion of monophthong versus diphthong usage between black and white speakers (the two speakers of “Other” race both used diphthongs). A relatively high 59% (n=16) of black speakers used the monophthong variant, while only 17% (n=5) of white speakers did. This 42 percentage point difference between black and white speakers who used monophthongs proves to be significant well beyond the $p < .01$ level; the probability that this distribution occurred by chance is less than .0009.

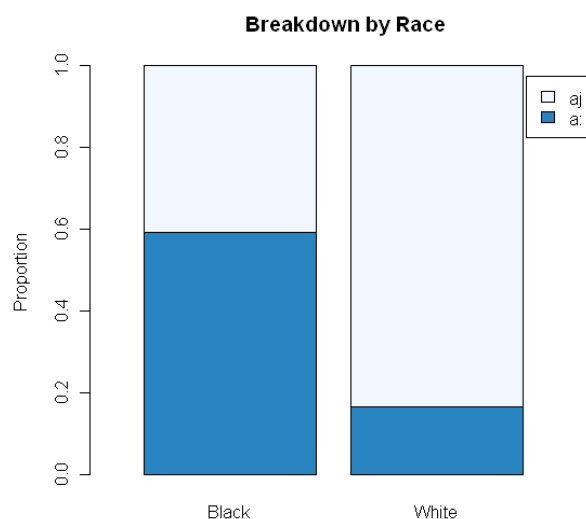


Figure 2: Monophthong [a:] vs. diphthong [aj] by race.

However, it would be incautious to interpret this data as an indication that the first stage of the Southern Shift is found in a higher percentage of black Atlantans than white Atlantans, because /ay/-monophthongization is also a well-attested feature of African American Vernacular English (AAVE). Therefore, a much more thorough study of black speakers alone would need to be conducted, incorporating analysis of both AAVE features and Southern Shift features, before it could be established whether this rate of /ay/-monophthongization is due to the black community’s participation in the Southern Shift or to its use of AAVE.

3.2 Sex

Although numerous linguistic studies have shown significant differences between male and female usage of variants that have social value attached to them (e.g., Trudgill 1983), this data shows no significant sex difference in which /ay/ variant is used. Of a total 29 female speakers interviewed, 38% (n=11) used the monophthong variant, while 33% (n=10) of the 30 male speakers also used a monophthong. The probability of this occurring due to chance is .712, and therefore this distribution is not statistically significant. This is true within both races individually, as well as the population as a whole.

3.3 Location

There were some interesting differences in the percentage of speakers using a monophthongal form of /ay/ between the different locations sampled. Toco Hills, Edgewood, and Ansley Mall all had lower than average percentages, while Sage Hill and Ponce de Leon had above-average percentages. Table 2 shows the percentage of speakers with the monophthong variant at each location, as well as the percentage point difference from the overall percentage of speakers using a monophthong.

The most extreme difference, found at Ansley Mall, can be explained in two ways. First, its sample is much smaller than the others, as only five speakers were interviewed there. Secondly, the sample from Ansley Mall is not as racially balanced as the other samples are. Given the significant difference in percentage of black versus white speakers using a monophthong discussed above, the Ansley Mall sample is clearly skewed towards the white, diphthong-using demographic.

Location	% Monophthong Use	Difference from Average	Total Speakers
Toco Hills	27%	-9	11
Edgewood	30%	-6	10
Ansley Mall	20%	-16	5
Sage Hill	50%	+14	10
Ponce de Leon	39%	+3	23

Table 2: Percent monophthong use by location.

Interestingly enough, the location with the most extreme difference in the positive direction was also slightly skewed racially. Sage Hill's percent of monophthongization was 14 points higher than the average, with 50% of speakers interviewed showing the monophthong variant, by far the highest across all the locations surveyed. What makes Sage Hill intriguing is that the racial breakdown was not skewed towards black speakers, as one might predict. Of the ten speakers interviewed, 6 were white, 3 were black, and 1 was Asian. White speakers accounted for three of the monophthongs recorded, while black speakers accounted for the two remaining. This is highly unusual within this data, as the only other location where any white speakers used a monophthong was Ponce de Leon (note that it was also the only other location with above average monophthongization).

It may be possible to account for this unusual distribution by attending to the characteristics of the neighborhood in which Sage Hill is located. The Druid Hills/Virginia Highlands area is one of the older white residential areas in Atlanta, dating back to the developments of the 1890s. The neighborhoods to the west of Emory University in particular seem to be made up of a relatively stable core population of family residences, so it is possible that the Sage Hill store's clientele has a higher proportion of white lifelong Atlanta residents who exhibit older southern patterns in their speech than the other stores studied.

3.4 Age

It is difficult to draw any detailed conclusions about the effect of age on /ay/-monophthongization from this data set, because of the effect of race and the fact that the different age groups sampled were not racially balanced: there were more young black speakers than white, and more older white speakers than black. However, a general trend can be observed within both racial groups: young speakers are using the monophthong form of /ay/ less than older speakers (Figure 3). Additionally, none of the youngest group of white speakers used the monophthong variant.

	Black	White
Young (20-30)	18	8
Middle (30-50)	7	11
Old (50+)	2	11

Table 3: Number of speakers in each age group, by race.

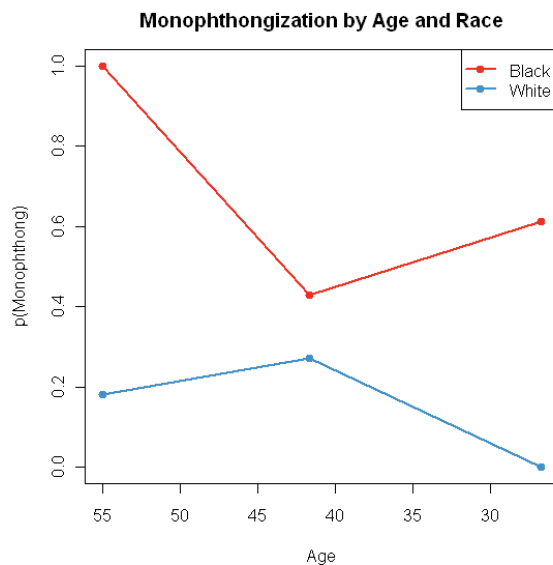


Figure 3: Percent of monophthongization among three age groups of black and white speakers.

4 Interview Data

The five speakers who participated in the long-format interviews were all native to the Atlanta metropolitan area. Two of the speakers were college students; one was a 22-year-old male, the other a 19-year-old female. Two more speakers were lifelong residents of a neighborhood bordering the Emory campus on the west; one was an 82-year-old female, the other an 80-year-old female. The remaining speaker interviewed was the 56-year-old father of the 22-year-old male, who was also born and raised in the area. All of the speakers interviewed were white, as discussed above.

Although it is difficult to generalize based on such a small sample, the data from these interviews does seem to support several findings made in the rapid and anonymous interviews. There were no apparent gendered differences in the phonological features of these speakers, just as there was not a significant difference between the percentages of females versus males who used a monophthong form of /ay/ in the rapid interviews. The most significant demographic difference found was age.

4.1 Southern Shift: /ay/-Monophthongization

As discussed in the previous section, the analysis of the rapid interviews broke age down into three categories: 20–30, 30–50, and 50+ years old. The long interview data collected on the first stage of the Southern Shift, /ay/-monophthongization, partially substantiates these categories, as monophthongization was found in the three older speakers, but not in the two college students. Unfortunately, none of the speakers interviewed in this part of the study fell into the intermediate age group, and further investigation would be necessary to determine whether there is indeed a difference between this group and the other two. For those speakers who did monophthongize, there were no monophthongs found before voiceless obstruents, which follows the pattern predicted for the Piedmont area. All of the vowel tokens elicited in the reading passage portion of the interview were acoustically analyzed and used to create vowel charts for each speaker. For diphthongal tokens of /ay/, two measurements were taken: one at the vowel nucleus, and a second approximately at the end of the offglide, or F2 maximum. Figures 4 and 5 below contrast the pattern of the /ay/ variants used by the oldest and the youngest speakers interviewed (Red triangles indicate monophthongs, while arrows indicate approximate length and direction of glide).

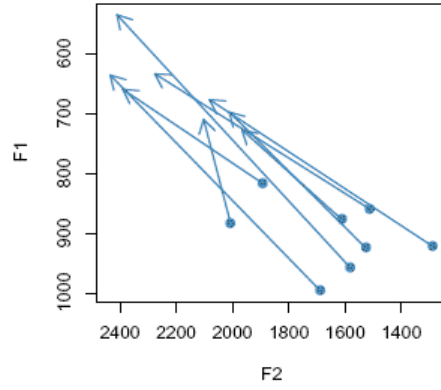
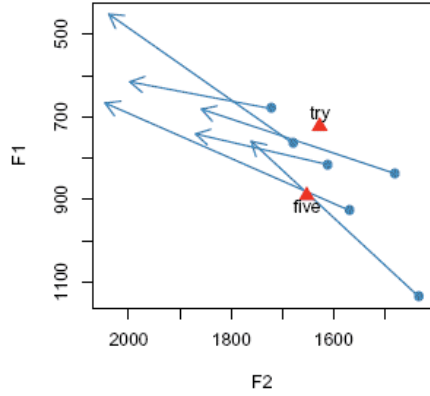


Figure 4: 82-year-old female /ay/ tokens. Figure 5: 19-year-old-female /ay/ tokens.

An interesting pattern emerges as a result of charting each speaker’s /ay/ tokens: in general, the older speakers’ /ay/ diphthongs have a much more horizontal trajectory than the younger speakers, whose diphthongs are decidedly upgliding. Further investigation is needed to determine whether this pattern holds true in a larger sample, and if so what relationship the directionality of the offglide might have with monophthongization.

4.2 Southern Shift: Stages 2 and 3

None of the speakers interviewed showed a clear presence of the third stage of the Southern Shift, /iy/ and /i/ reversal, in their speech, which agrees with the ANAE’s finding that the Southern Shift is less advanced in the Atlanta area. However, almost all of the speakers showed signs of the second stage, /ey/ and /e/ reversal. The most advanced speaker in this regard is the 56-year-old, whose high front vowel system, pictured in Figure 6, shows complete reversal of /ey/ and /e/.

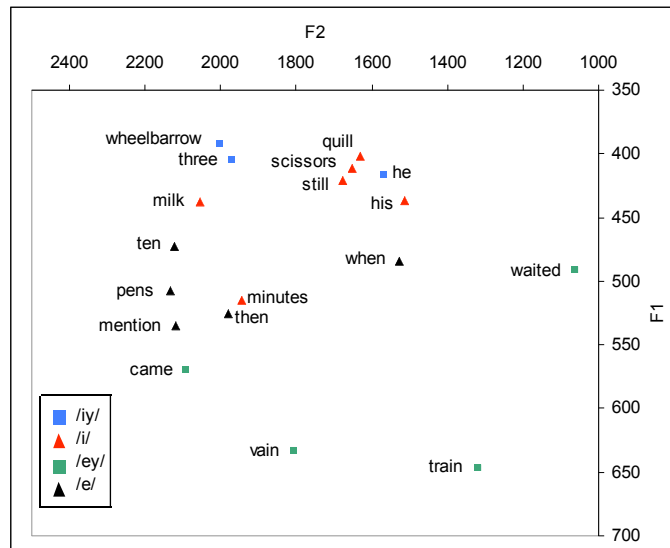


Figure 6: 56-year-old male, front vowel system.

The least advanced speakers were the college students, who show a few outlier points which exhibit this Stage 2 reversal, but whose overall vowels do not show a complete shift. The two older women also show some degree of reversal, in which the /e/ tokens are generally fronted, but only a few are higher than the /ey/ tokens. “Frontedness” was determined by taking the mean of the F2

formant values for /e/ and /ey/ tokens; if the mean F2 for /e/ tokens was greater than the mean F2 for /ey/ tokens, the speaker was considered to have /e/-fronting. Likewise, if the mean F1 for /e/ tokens was *lower* than the mean F1 for /ey/ tokens, the speaker was considered to have /ey/-lowering. Speakers who have both /e/-fronting and /ey/-lowering are considered to have a completed second-stage shift. Table 4 provides a summary of the Southern Shift features found for each speaker.

Age / Sex	/ay/ monop.	/e/ fronting	/ey/ lowering	/i/ & /iy/ reversal
82 / F	X	X	X	
80 / F	X	X	X	
56 / M	X	X	X	
22 / M		X		
19 / F		X		

Table 4: Southern Shift features identified in each participant's speech.

This pattern agrees with two different Southern Shift trends that have been reported in the literature, which were discussed above. The fact that the Southern Shift was not a general feature of Southern American English until World War II might explain why the 56-year-old speaker (born in 1953) shows a more advanced form of the Southern Shift than the two women born in the 1920s; when the older women were growing up, the Southern Shift was not yet a completely generalized characteristic of Southern speech, and so they may not have fully acquired these vowel shifts. Conversely, the fact that the Southern Shift has been receding recently would explain why the two speakers born after 1980 show many fewer features of the shift.

4.3 /uw/-Fronting

The last feature analyzed from these interviews was /uw/-fronting, a feature associated with the Southern Shift, but which may have been present in older varieties of Southern English. Before discussing these findings, it should be noted that the two women in their eighties preserve a related aspect of traditional Southern English in their speech—they both maintain the [u] versus [ju] distinction, in which /uw/ has a glide onset when preceded by an alveolar consonant (as in *Tuesday*). As a result, the mean F2 value for /uw/ for these women may be affected by these extremely front vowels, so tokens with a glide onset have been omitted when determining the frontedness of each speaker.

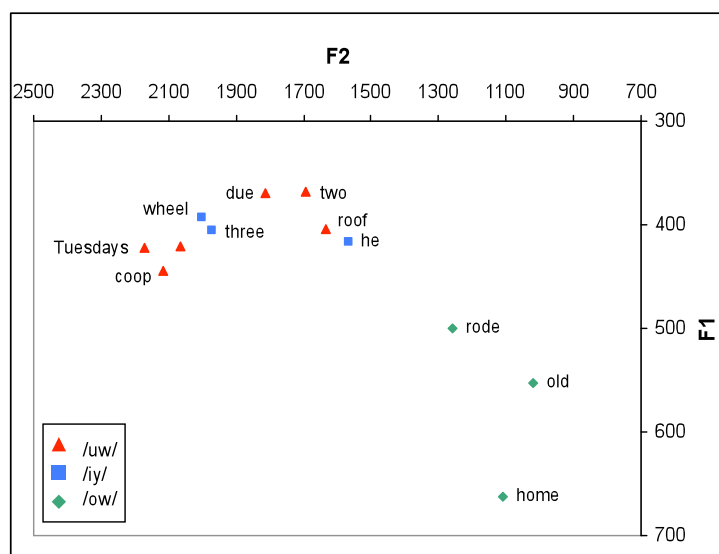


Figure 7: 56-year-old male, /uw/-fronting.

Each of these five speakers shows some degree of /uw/-fronting—that is, the mean F2 of the /uw/ vowel tokens analyzed was higher than the center of the vowel system, approximately 1550 Hz (ANAE). The individual with the most extreme /uw/-fronting was the 56-year-old male. There were three tokens from this speaker which were actually farther forward than the /iy/ tokens elicited, and the remaining /uw/ tokens were just behind those (see Figure 7). The 80- and 82-year-old women also showed extreme /uw/-fronting; nearly all of their /uw/ tokens were slightly higher than and equally as fronted as their /iy/ tokens. The two college students also showed /uw/ fronting, but to a lesser extreme. The 22-year-old male produced the least fronted /uw/ tokens.

In his 2006 paper, Baranowski argues that there is no structural relationship between the Southern Shift and the fronting of the back upgliding vowels (/uw/, /ow/, /aw/), which is so common in the south, by demonstrating that speakers in Charleston do have fronted back vowels, but lack the features of the Southern Shift. Likewise, these results indicate a lack of connection between the two phenomena, as none of the speakers analyzed had a fully-shifted front vowel system, but all had some degree of /uw/-fronting. Indeed, it is difficult to say whether the speech of the two college students has been influenced by the Southern Shift at all, since the only characteristic feature present in their front vowel systems was the fronting of /e/; nevertheless, both exhibited /uw/-fronting. This is unsurprising, as the ANAE points out that the fronting of back vowels is a process that is currently extremely widespread and no longer specific to the South.

5 Discussion & Conclusions

5.1 Apparent Patterns and Limitations of the Data

From the data presented above, a general image of Atlanta's speech begins to emerge. The patterning of /ay/-monophthongization does not appear to be gender-specific. However, more monophthongization is likely to be found in neighborhoods with a large black population, or possibly in older white neighborhoods which have retained a larger proportion of native residents. Race is a key factor, with the black population showing a much higher percentage of /ay/-monophthongization than the white population; however, this is not necessarily indicative of a higher proportion of Southern Shift influence among black speakers, since this feature has also been linked to AAVE. Therefore, the most salient characteristic seems to be age, with higher percentages of older speakers using Southern English features than younger speakers. Furthermore, while the vowel movements associated with the Southern Shift have had an effect on Atlanta, the shift is not as advanced as in more rural areas of the South; there is evidence of the first two stages of the shift, but not the third.

This image shows Atlantan speech to be firmly rooted in the South, but beginning to diverge from the traditional southern features. The fact that only 36% of rapid and anonymous interviews yielded a monophthongal form of /ay/ before a voiced consonant indicates that unlike other parts of the South, the majority of speakers in Atlanta do not participate in glide deletion. This finding agrees with that of the ANAE, which reports that only two out of five (40%) of the Atlantans interviewed had glide deletion before voiced consonants, which was a much lower percentage than that of the South generally. However, it is a much higher percentage than that reported in Charleston, SC, where Baranowski (2007) found only 5.8% glide deletion in his rapid and anonymous surveys. But while the ANAE interviewees did not show any further shifting, this project *did* find signs of Stage 2 of the Southern Shift, showing that native Atlantan speech has participated more fully in the regional trends than was previously thought.

Of course, this is by no means a complete picture of Atlanta, nor is it as representative as it could be. Crucially, this study failed to provide any information on the possible social stratification of the Southern Shift. Social class was not a key variable of interest, and the few techniques used during data collection in an attempt to factor in social class did not provide interesting results. It remains to be discovered whether this lack of results is due to the fact that social class is not a salient factor in the spread of the Southern Shift in Atlanta, or if, as is more likely, a more thorough study of the social class system in Atlanta needs to be made, and a larger, more carefully stratified sample obtained, before its role in the Southern Shift can be understood.

5.2 Further Issues of Note

Apart from the role of social class, the social issue that most merits further study is the similarities and differences between black and white speech in the city. Atlanta would be an ideal location for a study of the interaction (or non-interaction) between black and white varieties of English, particularly since claims are frequently made that AAVE derives from Southern English, or vice-versa. The question of whether or not black speakers participate in white language change could also be addressed. It has been put forth by Bailey and Thomas (Feagin 2003) that white speech has a limited influence on the black community and that it is not experiencing the Southern Shift; however, Thomas (2001) observed some fronting of back vowels among black speakers in North Carolina and Texas, while Kretzschmar (forthcoming) found /ey/ and /e/ reversal in African Americans in Atlanta. Clearly, the relationship between black and white speech in the South is not so clear-cut as previously thought, so further investigation is necessary. It is equally clear that although language in Atlanta has been affected by the city's rapid growth and urbanization, it has not entirely escaped the effects of the regional linguistic trends, as traces of the Southern Shift may still be found among its native residents.

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