The Interaction of Transmission and Diffusion in the Spread of Linguistic Forms

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Abstract
This paper explores the relationship between transmission and diffusion with data on the use of two innovative features, habitual invariant be and quotative be like, across four generations of African American Vernacular English (AAVE) speakers from the rural community of Springville, Texas. The data from this rural setting show fundamental differences on the acquisition and spread of each of these features. There is no steady transmission from generation to generation that results in the gradual increased use of habitual invariant be, but rather it is contact with adolescents from outside Springville that accounts for the diffusion of these forms in the community. Only for the youngest generation do we see evidence of transmission. Transmission is the likely source for the use of quotative be like by the youngest speakers; however, diffusion from outside the community is what appears to be accelerating this change forward. As we show, the interaction of transmission and diffusion is a consequence of the social situation present in Springville coupled with the changing demographics of the Springville School.
The Interaction of Transmission and Diffusion in the Spread of Linguistic Forms

Patricia Cukor-Avila and Guy Bailey*

1 Introduction

In a recent discussion of some problems of linguistic change, Labov (2007) distinguishes between change that occurs through transmission and change that occurs through diffusion. Diffusion is typically characterized by adult–adult contact that leads to borrowing and has a minimal impact on linguistic structure. Transmission, on the other hand, normally involves natural language acquisition by children that is often coupled with “vernacular re-organization” (Labov 2001:415). Change occurs when subsequent generations acquire the restructured forms and as each generation incrementally advances those forms. One implication of most work on diffusion in linguistics (including Labov’s work) is that diffusion is a “one-time” event. That is, a form diffuses in one generation and if it appears in the next it does so through transmission. For example, Labov (2007, 2010) presents a detailed analysis of how NYC short-a diffused into New Jersey, Albany, Cincinnati, and New Orleans. In the analysis he points out that the variation among these communities reflects variation in the incremental transmission of short-a from one generation to the next: each community borrowed the same form; the form was simply restructured in the process of transmission.

In this paper, we present evidence from a different sociolinguistic context that suggests that the relationship between transmission and diffusion discussed in previous studies may not account for the spread of linguistic forms in every case, specifically in communities where there are changing demographics and unpredictable social situations in which child rearing roles are often not clearly defined.

2 The Community

The data for this study come from a longitudinal panel survey comprised primarily of conversational recordings made with residents living in and around the rural community of Springville, Texas. Since the mid 20th century Springville has maintained a stable population of 150 to 170 inhabitants. Although the demographic make up of the village has historically been about 70% African American, with the rest equally divided among Mexican Americans and Anglos, recently a number of whites have moved into areas adjacent to the community. While a number of people have either moved out of Springville or died since the primary fieldwork began in 1988, the only people who have moved into the village proper are returning former residents who typically move back into their previous homes. The social situation in Springville during this time also remained fairly stable: beginning in the last two decades of the 19th century and continuing throughout the 20th century, the Springville general store and post office played a major role in the lives of Springville residents. Like other general stores throughout the rural South, the Springville store was the economic and social center of the community as it served both the personal and financial needs of its residents: the store was where people could buy food, clothing, tools, seed, hardware, as well as cash checks, pay bills, and receive credit. Moreover, the store provided a gathering place for residents of all ages and races and was the primary site of linguistic interaction in the

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1Springville is a pseudonym as are all other names used for people and places in this paper.

2Springville is approximately a 20-minute drive from an urban center of over 100,000 people where some community residents work; however, because it is situated in some of the richest farmland in east-central Texas, there has been little to no new construction there for over a half a century. The most significant recent physical change in the community was a new school built in 1997 on an adjacent site to the old school.

3See Ayers 1992 for the role of the country store in the rural South.
community. A secondary gathering place was the beer joint, adjacent to the store, where people would sit out front on the porch and talk while drinking their beer or soda, maintaining a clear view of the activity around the store. A third site of linguistic interaction, primarily for Springville children, developed around the school. When the Springville Independent School District was formed in 1925 more than 500 children were enrolled in two schools, one for blacks and one for whites. Over time the number of students enrolled in the Springville School steadily decreased, and when this project began in 1988 there were only 58 students in pre-K-8th grade and the school was in danger of being closed by the Texas Education Agency (TEA) due to low enrollment.

Since the last decade of the 20th century, however, there have been two significant changes in Springville that have affected the social structure of the community, and as this paper suggests, these changes have provided new contexts for linguistic diffusion to take place. The first was in the early 1990s when transfer students in grades 1–8 from the surrounding communities began attending the Springville School because it was considered safer and academically superior to schools in their districts. Enrollment increased each year, and in 1997 a new school was built on the property adjacent to the original school, and in 2001 a third building opened. The new buildings provided the necessary space to add one grade per year, so that by the end of the 2002–03 academic year Springville School had its first class of graduating seniors. Thus, unlike their parents and older siblings, Springville teenagers no longer had to leave the community to attend high school. The growth of Springville ISD has caused a dramatic shift in the demographic makeup of the district. During the 1980s, white students comprised approximately 10% of the school population, with African Americans at around 35% and Hispanics around 55%. When students from outside of the community started attending Springville School, the percentage of white students steadily increased and the percentages of both African American and Hispanic students began to decline. Over the last ten years there has been a leveling off in the percentage of African American students as the percentage of Hispanic students has continued to grow and the percentage of white students has slowly decreased, more noticeably in the elementary grades pre-K–6. Further, in grades 7–12, when peer networks and the “construction of a peer-based social order” has been reported to play an important role in adolescents’ linguistic choices (Eckert 2008, Cukor-Avila 2002, Cukor-Avila and Bailey 1995b, 1996), there are four times as many Hispanic and white students than there are African Americans. Currently, Springville ISD is a thriving school district with over 500 students, virtually all of whom are from outside the community — Springville children make up less than 10% of the total school population. This means that the youngest generation of Springville African American children is going to school with a very different population than the one the previous two generations did.

The second major event occurred in December 2004 when the Springville Store closed, some two years after the death of the owner. Since then only the post office, which is accessible through an entrance at the back of the store, has remained open. In the near future it too will probably close because of budget constraints and mail will be delivered to a numbered box unit, similar to

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4Unlike urban areas in either the South or North, the Springville had no residential segregation, although its institutions (the churches and schools) were segregated by race. For more information about the Springville Store and the Beer Joint as sites of linguistic interaction in the community and the site study recordings made at these locations see Cukor-Avila and Bailey (1995a).

5The scope of the Springville ISD extends beyond the boundaries of the village of Springville itself and includes the surrounding rural areas.

6During that time children were bussed some 9 miles away to a high school in the town of Attmore for grades 9–12.

7Earlier, the proportion of African American students was even higher; the proportion of the Springville population that was Hispanic grew especially between 1950 and 1980 as both blacks and whites moved to urban areas.

8This proportional change in white and Hispanic students simply reflects larger demographic changes in Texas schools.

9See Cukor-Avila (under review) for a more detailed discussion of the changing demographics in Springville ISD.

10The high school Springville residents attended in a nearby town was majority African American.

11The postal clerk (who has worked there for over 35 years) still provides bill-paying services to elderly Springville residents. This rural station is a convenient resource for them since they often don’t have transportation to get to the nearest post office nine miles away in Attmore.
the units in apartment buildings. Now that the store is closed residents must leave town to shop, but more importantly, there is no place in the community where people come just to “hang out,” and although the beer joint is open in the afternoons, it has not replaced the store as a primary site of linguistic interaction.

Although the economic center of the community is gone and the traditional pattern of Springville life that was centered in and around the general store has changed dramatically over the last decade, one aspect of Springville culture that has not changed, at least since the mid 20th century, is the family structure and patterns of child rearing. In Springville, children are typically raised primarily by their grandmothers and sometimes even great grandmothers rather than by their mothers or fathers. Figure 1 below provides an example of child rearing patterns over four generations in one family. Mary, who was born in 1913 and never had any children of her own, raised Vanessa and Erica. In addition she was the primary caretaker for Vanessa’s three children Sheila, Brandy, and Anthony, and for Erica’s oldest child Samantha until they were in their pre-teens and went to live with Vanessa full-time. Vanessa is currently raising Erica’s two other children, Tina and Keisha, whom she has legally adopted. Up until this past fall Brandy and her two children Bennie and Tasha were all living with Vanessa; thus there were three generations living in the same house.

![Figure 1: Child-rearing pattern for four generations in one Springville family.](image)

The patterns of child rearing and the changing demographics of the school have had a significant impact on the processes of diffusion and transmission in Springville. Two linguistic features that have been researched extensively, habitual invariant *be* and quotative *be like*, demonstrate the complexities that these patterns introduce into the diffusion process in Springville.

### 3 Methods and Data

The Springville project was designed as a longitudinal study to explore the mechanisms of language change in addition to compiling a database of primary evidence on rural AAVE. We began exploratory fieldwork in Springville and the surrounding communities in 1986, and in 1988 we initiated the more extensive longitudinal study that includes follow-up fieldwork nearly every year.
since then, with the most recent recordings made in the spring of 2010. The follow-up fieldwork includes re-interviews with almost two-thirds of the African American informants recorded during the initial fieldwork, enabling us to construct a panel survey that provides real-time evidence crucial for understanding how transmission and diffusion have contributed to language change for AAVE speakers in this rural setting. In addition, over the past twenty-three years we have also recorded new informants, both children who were born during this time period and former residents who moved back to the community. To date, the roughly 1.8 million word Springville corpus includes approximately 165 hours of conversational recordings in a variety of interview contexts with 103 informants: 67 African Americans, 24 Anglos, and 12 Mexican Americans.

The habitual invariant be tokens for this study were extracted from the larger data base of 17,000 present tense copula forms from all 67 African American informants. The quotative data base (N=4,673) includes all forms that introduce direct speech, inner thought, and non-lexicalized sounds or gestures coded into five types, say/said, be like, go, zero, and ‘other’ from a subset of 35 of the African Americans in the Springville corpus since these are the only informants who use direct speech or thought introduced by a verb of quotation in their recorded conversations.

3.1 Invariant Habitual be

Springville AAVE has always had an invariant be, although the form was quite rare in earlier varieties, comprising less than 2% of the tokens in the present tense of be (see Figure 2). Invariant be began to increase in frequency beginning with residents born in the 1930s, and the increase in frequency was accompanied by both semantic and syntactic restrictions on its occurrence: invariant be came to be used primarily as a marker of habituality before v+ing — hence habitual invariant be. These developments occur primarily among Springville residents who came of age during World War II and afterwards, and they are only now becoming a part of the vernaculars acquired by young children. Our data show how this form spread into Springville from surrounding urban areas.

As Figure 2 shows, invariant be expanded in Springville beginning with the post-WWII generation (people like Vanessa) born between the end of WWII and 1970. This expansion was almost exclusively in habitual contexts. Most likely, speakers in this generation picked up the form (and other urban innovations) when their urban social networks developed after they left Springville for high school. If we take Vanessa as an example, we know that habitual invariant be wasn’t transmitted to her from Mary or other older members of the community because they don’t have this feature. Nor did Vanessa transmit habitual invariant be to her children, because when they were younger they were raised by their grandmother, Mary (see Figure 1). When Sheila and Brandy were younger, then, we would expect them to use less habitual invariant be than their mother Vanessa, which is exactly what the data show. In fact, the dramatic increase in the use of this form by Sheila and Brandy coincides exactly with the time they develop urban social networks when they leave Springville to attend high school (see Figure 3). In addition, as the frequency of invariant be increased over time in this generation, not through transmission, but through the establishment of urban contacts, there was continuing semantic and syntactic reanalysis so that the distribution of this form is now significantly different than it was in the speech of Springville speakers born before WWII. The 4% total in the pre-urban period in Sheila and Bran-

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12 Patricia Cukor-Avila and Guy Bailey have done virtually all of the fieldwork except for two residents who contributed about 5% of the corpus with “community fieldworker” recordings in 1997, 1998, and 1999 – recordings made when the fieldworkers were not present (see Cukor-Avila and Bailey 2001 for a discussion of data from these recordings).

13 While a number of people have either moved out of the community or died since the fieldwork began, the only people who have moved into Springville are returning former residents.

14 The interview contexts include individual, peer group, and site studies. The Springville Project has relied on four techniques to ameliorate the effects of the fieldworker: multiple interviews with informants; interviews in which informants interacted with each other rather than (or in addition to) fieldworkers; a focus on strategic sites of linguistic interaction in order to situate the fieldworker as far away from informants as possible in interlocutor space; and interviews done by community fieldworkers. See Cukor-Avila and Bailey (1995a) for a detailed discussion of each of the interview contexts and the techniques described above.

15 See Cukor-Avila (2002, under review) for an analysis of quotative use by Springville AAVE speakers.
dy’s speech shown in Figure 3 represents invariant be used in both habitual and non-habitual contexts, while in the urban period invariant be is almost exclusively habitual.

Figure 2: The expansion of invariant be in Springville: be as a percentage of all forms of present tense be (adapted from Bailey 2007).

Figure 3: Expansion of Invariant be in the speech of Sheila age 9–21 and Brandy age 6–20.

It is not until invariant habitual be “re-diffuses” in Springville with speakers in the post-1970 generation that it is then transmitted to the next generation. In fact, data from speakers in the 1990–2000 generation reveal that habitual invariant be occurs in their speech at a much younger age than for speakers in the previous generation. We suggest this difference stems from the fact
that their primary caretakers were born after WWII, speakers who acquired innovative features as teenagers from their peers outside the community. The passage below from Tina (b. 1995) when she was six years old, roughly the same age that Brandy was when we first recorded her illustrates that unlike Brandy, Tina clearly has acquired urban features by the time she starts to school.16

T: We get up in his wallet an’ take out money. We get up in his drawers an’ find snack money. 
Las’ time [PCA interrupts]
PCA: Do you tell him about that or do you jus’ do it?
T: We jus’ do it. [Ohh] But sometime we ask him can we go to the store an’ he say no an’ we still ask him, an’ we still ask him. An’ he say, an’ then he’ll say yes. An’ then Keisha, when I go to the store Keisha be goin’ with me an’ then she act funny. She’ll come over here an’ then they be fightin’ with each other, an’ then they be beatin’ up each other. An’ then Newton had got the uh, the stick at the end of the broom. He had poked Daddy an’ it was hurtin’.
PCA: Were they fighting?
T: Yup. They always fight. An’ one, an’ then one time, no today I had beat Newton up. I had hit Newton arm real hard. An’ then he said, “I’m goin’ out!”

The data suggest that diffusion of habitual invariant be in Springville was not a one-time event, but rather a recursive process because the transmission of this form skipped a generation. Habitual invariant be first diffused into Springville with the post-WWII speakers but it was not transmitted to the next generation because these speakers were not the caregivers of the post-1970 generation. Rather the form re-diffused with the post-1970 generation in the same manner that it initially diffused. Transmission did not occur until the 1990s when the post-1970 generation speakers became caregivers for the children born in the 1990–2000 generation. The next section illustrates another innovation in Springville that has entered the community through a different path.

3.2 Quotative be like

The dramatic increase in the use of be like to introduce dialogue, inner thought, or non-lexicalized sounds or gestures in dialects of English around the world has garnered the attention of sociolinguists for almost four decades.17 Over the last twenty years this form has spread into Springville as well. An analysis of quotative use by 14 Springville AAVE speakers from four generations (speakers born between 1907–1982) (Cukor-Avila 2002) suggests that quotative be like initially diffused in the community in the early 1990s, coinciding with the time that speakers in the post-1970 generation established their primary social networks in urban areas outside of Springville.18 This is illustrated in Figure 4 which plots the use of be like for three Springville girls between 1988–1999 (pre-teens to late teens), the middle period being the time they must leave Springville to attend high school. It is important to note that even though their use of be like increased appreciably in their mid to late teens, say was still their primary quotative, occurring in approximately two thirds of all contexts in the later period.

16This passage also shows the use of had+past for simple past (Cukor-Avila and Bailey 1995b, Rickford and Rafal 1996). Our data show that had+past for simple past diffused in Springville much the same way that invariant habitual be did (cf. Cukor-Avila and Bailey 1996, Cukor-Avila 2001).
17Numerous studies on the distribution of be like and the other “new” quotatives, go and be all, from both sociolinguistic fieldwork and online corpora, document widespread use of one or more of these forms, suggesting pathways of diffusion as they spread across world Englishes and even across languages. See Cukor-Avila (Under review) for a discussion of these studies.
18This supports Ferrara and Bell’s (1995) hypothesis that be like is hierarchically diffusing from urban to rural areas in Texas.
Figure 4: Diffusion of *be like* in the speech of three Springville adolescents over time as they develop urban social networks (adapted from Cukor-Avila 2002:14 Table 3).

A follow-up study on the use of quotatives in Springville (Cukor-Avila, under review) adds a new cohort of speakers who were not included in the 2002 study: children born in the mid 1990s who are now teenagers, and children of one of the post-1970 generation speakers, Brandy, who were born in the early 2000s. In addition, data from follow-up group and individual recordings made in 2006, 2009, and 2010 with Vanessa, Sheila, and Brandy broaden the scope of the real-time corpus on quotative use. As stated above, the new study includes data from 35 Springville residents born between 1907–2002, divided into six cohorts. Figure 5 shows that the current distribution of quotatives, especially for the youngest generations, patterns similarly to the distribution found for Canadian English speakers from Toronto (Tagliamonte and D’Arcy 2007:205). In just ten years there has been an explosive increase in the use of *be like* coupled with a steady decline in the use of *say* in Springville AAVE, just like what has occurred in Canadian English and in other varieties of English around the world. The main difference, however, is that Springville AAVE speakers are approximately one generation behind the Canadian English speakers in the wholesale adoption of *be like* as their primary quotative form. Tagliamonte and D’Arcy (2007) suggest that *be like* replaced *say* in Canadian English around the early 1980s, when the 30 year-olds in their study (roughly the same age cohort as Generation 4 speakers in Springville) were teenagers. As Figure 5 shows, the cross-over, where *be like* begins to replace *say*, doesn’t occur in Springville until the Generation 5 speakers are in their teens, around the mid 1990s.

Our data suggest that *be like* couldn’t have been transmitted to speakers in Generation 6 because *say*, and not *be like*, is the preferred quotative used by their primary caregivers (e.g., Vanessa in the case of Tina and Keisha). Instead, we suggest that *be like* has been brought into the community as a result of the massive demographic changes that have occurred over the last decade in the Springville school. Recall that children born after 1990 belong to the first generation of Springville adolescents who not only don’t have to leave the village to complete their schooling, but who also are in close contact with peers from neighboring urban areas from the time they are in pre-kindergarten. In this case then, the mechanism for diffusion is a large-scale infusion of new people who bring in new forms.

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19 The most recent data for Sheila and Brandy show that indeed *be like* has replaced *say* as their primary quotative form. The distribution of quotatives in Vanessa’s speech, however, remains unchanged (Cukor-Avila, under review).

20 The only three examples of quotative *be like* in Vanessa’s recordings come from 2010 when Tina and Keisha are teenagers.
4 Conclusions

The socio-cultural context in Springville, both the unique patterns of child rearing and the changes in the structure and demographics of the school, creates some interesting complexities in the processes of diffusion and transmission. Because of different patterns of child rearing, the diffusion into Springville of AAVE features such as invariant habitual be that developed around WWII in urban areas was a recursive process: the diffusion of forms like habitual invariant be into the community recurring in the subsequent generation much as it did in the generation of their parents. The transmission of these features to the vernaculars initially acquired by children did not occur in this subsequent generation, but rather in the generation that followed. This younger generation had as their caregivers the cohort that was initially exposed to the urban forms after WWII.

Because the current population of the Springville School is primarily made up of children who live outside Springville, linguistic diffusion is now “inverted” in the community. Rather than Springville residents going to the city to learn urban forms, new urban forms such as quotative be like are now coming to them. Further, changes in the structure of the school and in the population that Springville children and adolescents are now around mean that they acquire more recent innovations like be like at an earlier age.

The consequences of the different patterns of child rearing and of the rapid demographic change in Springville are two mechanisms of diffusion that previously haven’t been described in the literature. Because of child rearing patterns, linguistic diffusion in Springville during much of the second half of the 20th century occurred as a two-step process, with diffusion recurring in a subsequent generation before innovations were transmitted by the initial generation that acquired them. Recent demographic and social changes in Springville have meant that innovations are now diffusing to the community through “infusion.” The innovative forms are infused into Springville as they are brought there by an overwhelming number of users who are in the community on a regular basis for significant periods of time every day. More generally, this study suggests that the detailed analysis of the mechanisms of diffusion in different types of communities may show a much richer array of patterns of diffusion than were previously thought to exist.21

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References


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