

MEASURING STYLE SHIFT: A QUANTITATIVE ANALYSIS OF AFRICAN
AMERICAN ENGLISH

by
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ABSTRACT

JENNIFER RENN: Measuring Style Shift: A Quantitative Analysis of African American English
(Under the direction of J. Michael Terry)

This investigation considers how African American adolescents shift their speech styles based on context by examining the speech of 50 sixth-graders. It assesses the use of African American English structures in formal and informal peer contexts to determine which features are affected by the situation. The results reveal shifts in the overall inventory of structures, indicating that adolescents have a growing awareness of the role of situational context in adjusting their speech.

Analyses also suggest that not all dialect features are implicated in shifting; thus, a revised inventory of features is proposed to quantify style shift. The goal was to arrive at a minimally adequate subset of features that effectively assesses speakers' overall vernacular use as well as their shifting behavior across contexts. This subset measure is compared to other "all-encompassing" measures and the advantages and disadvantages of both methodologies are discussed.

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LIST OF ABBREVIATIONS

0AR	Zero article
0CO	Zero coda
0IN	Zero <i>-ing</i>
0MA	Zero modal auxiliary
0PL	Zero plural marker
0PP	Zero possessive pronoun
0PR	Zero preposition
0PS	Zero possessive marker – ‘s
0PT	Zero past tense
0RP	Zero relative pronoun
0TO	Zero infinitive <i>to</i>
AAE	African American English
AI1	<i>Ain’t</i> for <i>are+not</i> , <i>is+not</i> , or <i>have+not</i>
AI2	<i>Ain’t</i> for <i>did+not</i>
APP	Use of appositive pronoun
BDA	Use of benefactive dative construction
DCA	Double copula or auxiliary
DDM	Dialect Density Measure
DMN	Multiple agreement markers for irregular plural nouns
DMO	Double modal
DMP	Multiple agreement markers for pronouns

DMV	Multiple agreement markers for irregular verbs
DON	Completive <i>done</i>
EXI	Existential <i>it/they</i>
FBS	Use of abbreviated forms of <i>fixing to</i> , <i>supposed to</i> , and <i>about to</i>
HAD	Preterite <i>had</i>
IBE	Invariant <i>be</i>
INA	Use of indefinite article <i>a</i> before a vowel
INQ	Inverted Question without <i>if/whether</i>
IPT	Regularization of irregular past tense form
LAB	Labialization
LEV	<i>Is/was</i> generalization
M3S	Absence of third person singular –s
MIN	Regularized <i>mines</i>
NAS	Nasal fronting
NEG	Multiple negation
P3S	Addition of third person singular –s on non-third person subject
PCR	Prevocalic cluster reduction
RPB	Remote past <i>been</i>
RPF	Past form for participles
RRF	Regularized reflexive
SAE	Standard American English
TSA	Difference in number between subject and modal auxiliaries <i>do</i> and <i>have</i>
UDQ	Uninverted direct question

UNO	Nominative and objective pronouns are used interchangeably
UOD	Use of object form for demonstrative
XCO	Lack of zero coda feature where it can be grammatically used
XMA	Lack of zero modal auxiliary feature where it can be grammatically used
XNA	Lack of nasal fronting feature where it can be grammatically used

CHAPTER 1

INTRODUCTION

Although there has been much discussion of style shifting in African American English (AAE), most of the literature is solely descriptive; there has been little actual systematic, experimental study of this process, particularly in the speech of adolescents who are developing their sociolinguistic competency. Lingering questions involve the age at which children show sensitivity to stylistic manipulation and the types of linguistic structures that are utilized in effecting such shifts. As part of a longitudinal study of language development among African American children, this thesis proposes the use of quantitative methods to better ascertain how African American adolescents shift their speech styles due to situational context. The measure promoted in this work applies a carefully selected set of AAE features to the speech of African American youth. This methodology provides researchers with an opportunity to better describe and understand style shifting behavior through more advanced statistical analysis methods and a focus on the particular vernacular features that seem to be included in that shift.

Previous research has addressed general shifting behavior among speakers. Some have looked to the influence of a speaker's audience as a cause of style shift. Other studies have suggested that the amount of attention that a speaker pays to his language under certain circumstances can affect his speech style. One such finding was that the formality of a

situation triggers significant shifts in the overall inventory of vernacular structures used by AAE speakers (Labov, 1966). This indicates that these speakers have an awareness of the role of situational context when adjusting their speech. Furthermore, factors like conversational partner and other speech conditions (e.g., speech versus writing) can affect a speaker's degree of vernacular use (Rickford & McNair-Knox, 1994; Ervin-Tripp, 2001). The longitudinal study used for this thesis drew on all of these theories of style and thus also created an opportunity to evaluate their relative merit.

This thesis also discusses the utility of comprehensive vernacular measures at the same time that it reveals their limitations. Although quantitative techniques like the Craig and Washington (2006) Dialect Density Measure (DDM) have been applied to the study of AAE, these methods highlight the importance of an overall shift in language use. This allows for the analysis of dozens of linguistic features, but such measures are also accompanied by numerous restrictions, which pose a challenge to their efficacy. First, the justification for including or excluding structures from a comprehensive measure is tenuous. As will be discussed in §2.3, there is much debate and little consensus about which features best characterize AAE. Thus, it is not clear that the Craig and Washington DDM or any similar measure could truly be considered “all-inclusive” or efficiently predictive. Additionally, the kinds of statistical analyses that can be undertaken with a measure containing dozens of features are extremely limited. For example, performing exploratory factor analysis on many features might require such large sample sizes that it would not be plausible for most linguistic studies. Although there is much debate in the field of statistics regarding the minimal sample size required for an exploratory factor analysis, MacCallum et al. (2001) suggest that when the amount of variance that is explained by common factors is low, a

subjects-to-variables ratio as large as 20:1 might be necessary for a stable solution. This would call for a sample size of 600 in a measure that used 30 linguistic variables; a sample this large is often difficult to recruit for a longitudinal linguistic study. Finally, measures that conflate an assortment of features calculate a score that pays attention to the speaker's overall vernacular use. While this methodology might indicate that a shift has taken place, combining all the vernacular features glosses over the disproportionately larger role that certain features have during style shift. Thus, a great deal of data is missed with such measures.

To address these issues, a revised inventory of features is proposed in this thesis that more adequately accounts for indexing the overall incidence of AAE structures and their dynamic manipulation situationally. Analysis of particular features in the inventory was very informative in assessing style and shifting behavior. Results suggest, however, that not all dialect structures are implicated in shifting styles, so that all features do not behave uniformly. Rather than simply noting that a change in speech style exists, then, it is also vital to understand that certain individual features may play a more crucial role in contributing to that shift.

Given these results, a subsequent goal was to determine a minimally adequate subset of AAE features that most effectively quantifies a speaker's degree of situational style shift. This subset measure would increase the opportunity for various statistical analyses and reduce the problems inherent in creating an all-encompassing AAE measure. Also, a close examination of what these subset features have in common may result in a better understanding of what the speaker is doing linguistically when he changes his speech because of the situational context. An additional consideration for future research is that

different density measures might be generated to assess other factors that affect style, like gender, age, and socioeconomic status.

The structure of this thesis is as follows: Chapter 2 examines literature on general characteristics of AAE, the application of Dialect Density Measures to assess vernacular use, and the existence of style shifting behavior in vernacular communities. Chapter 3 presents data gathered through subject speech from an “African American English and Literacy” study and the methodology used in transcribing and coding that speech. Chapter 4 addresses the various statistical analyses of the data and their results. Finally, Chapter 5 discusses the implications of the analytical outcomes and proposes future research directions.

CHAPTER 2

BACKGROUND

In recent decades, a great deal of individual attention has been paid to the structure and use of African American English, language acquisition, and contextual style switching. Few studies, however, have examined these three issues simultaneously. In this chapter I will commence by reviewing literature from each of these topics separately. First, I will discuss the social implications of style shifting (§2.1). I will then provide a brief synopsis of relevant studies involving this behavior, specifically in school-aged and adolescent speakers (§2.2). Next, I will detail the primary characteristics of AAE, including a discussion of Dialect Density Measures and how they have been utilized to assess a speaker's level of vernacular usage (§2.3). I will subsequently look at style shifting studies that focus specifically on African American communities (§2.4). The final section will summarize the key points of this chapter (§2.5).

2.1 The Social Uses of Language Variation

Before looking specifically at AAE speakers, it is constructive to first consider style shift in general. Style shifting is language variation that is exhibited by an individual or group of individuals who share a common sociolinguistic variable like age, ethnicity, or gender. A large body of work in sociolinguistics has shown that such variation in language use is linked

with numerous social determinants as well as the situational context. Factors like gender, age, peer group, and socioeconomic class affect the frequency with which a speaker uses nonstandard features over the standard form. For instance, people of lower socioeconomic status tend to use more vernacular forms in speech than their middle and upper class counterparts.

Language also varies based on a speaker's situational intent. Though there is no definitive number, many linguists like Moag (1982) contend there are a number of linguistic styles that each person employs in speech. For example, Labov (1966) speculates that people may utilize at least three speech styles: careful, casual, and spontaneous; others like Crystal and Davy (1969), however, have posited that in actuality speakers make use of more than five linguistic styles. Despite this uncertainty, it is clear that the social context does affect speech style.

Cheshire's (1982) examination of the speech of twenty-five students in Reading, England exemplifies the environments in which adolescents may choose to utilize more nonstandard speech. She found that gender played a role, as males and females used nonstandard forms differently to demonstrate vernacular loyalty. Some features were used by both genders, while others were specific to one group or another. For example, only boys used nonstandard *never* for standard *didn't*, as in *I never done it* for *I didn't do it*; on the other hand, girls primarily utilized the past tense bare root *come*, as in *I come down here yesterday*. Cheshire also found that the use of some nonstandard features further acted as an identity marker. For instance, "good" girls used nonstandard *come* only about 30 percent of the time, while other girls used it in 90 percent of speech. Thus, in many varieties of English, the use

of vernacular forms can be employed by the speaker as a way to assert both group membership and individual identity.

Some researchers have observed that social factors apart from demographics can affect speech style. Schilling-Estes (1998:68-69) notes that speakers often style shift in order to “perform” for others; thus, in seeking to project an image to the listener they purposely alter their speech. Other studies suggest that in close-knit rural communities, issues like personal history, interactional relations, and individual attitudes and values play a role in linguistic style (Wolfram and Beckett, 1999). Such investigations point out the many intricacies involved in language variation.

Finally, it is important to emphasize that style shifting is not synonymous with “code switching.” Though both behaviors are affected by social and contextual factors, they differ in key ways. While in code switching one speaker alternates between two different languages in a conversation or utterance, style shift involves variation in only one language. In code switching, a bilingual speaker purposely switches between languages in order to attain an “interpersonal reward” from an interlocutor (Myers-Scotton, 2000). The distinction between code switching and style shifting is not always clear because of the difficulties inherent in defining “dialect” and “language.” Since the dialects and languages exist on a continuum, it is often unclear where two linguistic varieties diverge enough to be considered separate languages rather than dialects of one language. Thus, while code switching and style shifting refer to different behaviors, differentiating them is often an imprecise task.

2.2 Variation Studies of School-Aged Children and Adolescents

Most early studies of style variation focused on adolescents and adults, as these speakers were thought to have a degree of control over their speech and could therefore purposely modify their dialect. Labov (1964) illustrates this view in his list of the steps in the acquisition of spoken English. In the first two stages, which cover speech development from birth through pre-adolescence, children learn the rules and vocabulary of their native tongue as well as the characteristics of their particular vernacular. It is not until early adolescence that children perceive the significance of their dialects in a social context. At this point, according to Labov, children become aware of their vernacular and compare it to those around them; in the next step, at around high school age, the ability to modify one's speech variety to become more like the prestige dialect is finally acquired. Though this was the popular belief among early variationists, in subsequent decades, however, many linguists including Romaine (1984) have disagreed with this assertion and argue that style shifting behaviors begin earlier. The current study looks to evaluate this claim, as it focuses on children aged 12 to 14 years. In the following sections, studies of variation in older children and adults (§2.2.1) and in school-aged children (§2.2.2) are reported.

2.2.1 Studies of Older Children and Adults

The prevalence of studies of older children and adults suggests that many linguists engaged in variation research are in accord with Labov's thinking. Eckert (2000) assessed subjects in Labov's fourth stage of acquisition in her study of students at Belten High. She looked at the influence of such factors as gender, parents, peers, and communities of practice to determine how the students altered their speech. Similarly, Chambers' (1992) study of

dialect acquisition in immigrants looked at six Canadian children, aged 9 to 17 years, who relocated to southern England. He developed eight principles of dialect acquisition, which examined changes in the acquirer's use of lexical items and phonological rules. Finally, Munro et al. (1999) observed Canadians who moved to Alabama to determine the extent to which adults acquire the phonetic characteristics of a new dialect when they move from one dialect area to another. This study was also concerned with the social ramifications of language variation at an older age and determined that adults who are well past the critical period of language acquisition are still able to adapt their dialect to a new linguistic situation. The authors, however, were not able to determine how much of that modification was deliberately implemented.

2.2.2 Studies of School-Aged Children

Other researchers have focused on the degree to which school-aged children are able to manipulate their dialects. Romaine (1984) specifically takes issue with Labov's assertion that children do not attain the ability to alter their language for social purposes until adolescence. She cites several studies in which grade school children adapt their speech depending on certain social contexts and situations. For example, Edelsky (1977) found that by 8 or 9 years of age, children were able to correctly determine whether a statement was more stereotypically male or female. She cites several studies that suggest that middle school aged children are attentive to stylistic variation in speech and can adapt their own speech to suit various social contexts and situations.

Several studies of Scottish English also focused on school-aged children. Romaine (1978) found variation in word final /r/ that depended upon gender, age, and style. In another

example, Saunders (1982: 99) shows that 6-year-old Thomas is influenced by the speech of his great-uncle Georgie when he switches from the standard English form *those* to match his uncle's nonstandard form *them* in the following passage:

Thomas: Remember when you said we could go up to Scamander and practice flying on the sandhills?

Georgie: On them beaches, yeah, when we get up on them sandhills.

Thomas: Yeah, those beaches.

Georgie: We'll have bloody fun then.

Thomas: Yeah, it's bloody good at those beaches – them beaches.

These studies have provided some insight into how children and adolescents acquire their dialect and more importantly, how they commence manipulating their speech styles in certain situations.

2.3 Classifying AAE

Numerous researchers have attempted to identify the linguistic features that characterize AAE. Some recent key works on classifying AAE features will be briefly discussed (§2.3.1), as will studies that demonstrate the large degree to which the features of AAE overlap with those of SAE (§2.3.2). Some issues that arise when attempting to characterize AAE are also briefly mentioned (§2.3.3). Finally, the development of Dialect Density Measures and their application to determine an AAE speaker's level of vernacular use are touched upon (§2.3.4).

2.3.1 Characteristics of AAE

It is well documented that speech patterns in African American communities tend to differ from those of European American communities. Early descriptive work by Labov et al. (1968) and Fasold and Wolfram (1970) noted that despite regional differences these patterns tend to share a “family resemblance;” this resulted in their often being talked about

under the rubric of African American English. More recent work by Rickford (1999) provides a list of phonological, morphological, and syntactic features of AAE. A much more detailed account of the attributes that are typical to AAE speakers is provided by Green (2002). Green gives in-depth specifications of lexical, semantic, syntactic, morphosyntactic, and phonological properties that are characteristic of AAE. These researchers, as well as many other scholars, attempt to address the challenging task of defining AAE.

Though dozens of linguistic attributes can and have been noted as characteristic of AAE, research has indicated that a subset of these attributes might be diagnostic. For example, Wolfram (1991) cites eight features, six morphosyntactic and two phonological, that are representative of AAE. Also of note is the prevalence of morphosyntactic structures in the feature sets of Wolfram, Rickford, and Green; this configuration suggests that morphosyntactic characteristics have a certain quality that set them apart from other features.

In addition, recent formal work focuses on the internal grammatical structure and function of many AAE features and attests to the importance of morphosyntactic features in AAE. For example, in her treatment of aspectual *be* Green (2000) addresses how this marker of regularity affects how a predicate is read. Terry's (2005) study of the interpretation of the ambiguous *V-ed* form in AAE notes that this structure is dependent upon its relation with other operators in a sentence. This focus on the grammatical relations in AAE also provides good reason for looking to morphosyntactic features as especially notable.

2.3.2 Comparisons of AAE with Other Varieties of English

The majority of an AAE speaker's speech overlaps greatly with that of speakers of Standard American English (SAE) and other varieties of English. In Craig and Washington's

(2004) study of school-aged children, for instance, the child with the most vernacular speech style used only one AAE feature per 2.3 words. Thus, more than half of that child's speech utilized other English forms.

Other studies of AAE and SAE have looked at the phonology of younger speakers who are in the process of acquiring their vernacular¹. There were noticeable phonological contrasts in the two dialect groups; however many of the differences were attributed to developmental errors, rather than dialect differences (Seymour & Seymour, 1981). Thus, though once again there were obvious contrasts showing that AAE and SAE are clearly discrete varieties of English, the children's speech had more commonalities than differences. Due to the large amount of overlap among various forms of English, one approach to picking out AAE features is through comparison with other styles of English.

Additionally, many distinguishing features of AAE are characteristic of other colloquial forms of English. Comparisons with European Americans who utilize a regional southern dialect are of particular interest, as the degree of similarity between "black speech" and "white speech" is greatest in the southern United States. Features like double modals and the use of *done* to indicate a completed action are common to both southern vernacular and AAE (Wolfram & Schilling-Estes, 2006). Most of these "shared" features are found more frequently in AAE or occur in a wider range of linguistic environments in the speech of African Americans, however (Rickford, 1999). Finally, the results of a study in Mississippi showed that while there were enough differences to define the speech of the two ethnic

¹ Seymour & Seymour (1981) focus on the articulation of consonants in African American and European American four and five-year-olds, using a standard articulation test.

groups as different dialects of English, their similarities greatly outweigh their differences (Fasold & Wolfram, 1970)².

Although it is constructive to compare AAE with other types of English for the reasons discussed above, such assessments do not provide enough information to characterize AAE. As I have noted, even some of the features that are considered representative of AAE overlap with other varieties of English; looking at features individually does not provide enough information about AAE as a dialect. Instead, as previously mentioned, determining a group of linguistic features that are diagnostic of AAE is more elucidating (Wolfram & Schilling-Estes, 2006). Therefore, when attempting to study AAE, it is necessary to understand that many of its characteristics are shared with other dialects of English (e.g., double modals).

2.3.3 Issues in Characterizing AAE

Determining characteristic features of AAE is not a simple task. Although AAE is often thought of as a unitary dialect, it varies depending on a speaker's region, gender, and individual characteristics like any other language. While there may be considered to be a core set of features that distinguish AAE, speakers can often be identified as hailing from certain areas of the United States based on the influence of regional dialects. Wolfram and Shilling-Estes (2006) note that it is possible to differentiate AAE varieties such as Northern metropolitan, Southern rural, South Atlantic coastal, and Gulf region.

Most investigations of AAE suggest that males use higher levels AAE features than females, but there is a great deal of individual variation. In studies of third person singular *-s* absence in Detroit, working class males tended to use the vernacular form significantly more

² Specific features that were determined to be of particular interest in Wolfram's (1971) study were third person singular *-/z/*, possessive *-/z/*, copula absence, invariant *be*, and word-final consonant clusters.

frequently than women (Wolfram, 1969). In later studies, however, two females in East Palo Alto showed higher incidences of this than their male counterparts (Rickford, 1992).

Other studies demonstrate the importance of group membership in a speaker's level of AAE usage. Mallinson and Childs (2003) examined a rural Appalachian community where African American women were divided into two social groups, the "porch sitters" and the "church ladies." Each group used a particular speech style that indicated their social ties. The language of the first group, the "porch sitters," contained a large proportion of AAE features, while the "church ladies" utilized more SAE and regional Appalachian characteristics in their speech. These differences demonstrate the importance of social associations in the amount and type of vernacular employed by a speaker.

Further complicating matters is the debate over whether AAE is converging with or diverging from other varieties of English. Labov (1987) contends that the isolation that African Americans experience as a result of living in ethnically homogeneous inner city environments leads to further differences between AAE and other English varieties. Others argue that because of increased educational opportunities for minority groups like African Americans, AAE and SAE are actually becoming more similar (Vaughn-Cooke, 1987). Hinton & Pollock's (2000) investigation of regional variation in AAE examines African Americans who reside in less segregated areas and therefore have greater interaction with SAE speakers. These speakers utilized fewer AAE features in their speech than African Americans in more isolated situations. It is likely, in fact, that both of these views are correct in part; some African Americans may be using more standard speech, while others are utilizing more vernacular features. Whether these two variants of English are merging or moving apart, such changes make it more difficult to characterize AAE. Despite the many

difficulties inherent in characterizing AAE, there are enough similarities, both structural and social, to treat it as a unique variety of English.

2.3.4 Craig and Washington's Dialect Density Measure

A recent development in the study of AAE has been the creation of a Dialect Density Measure (DDM) as a method of gauging a speaker's degree of vernacular use (Craig et al., 1998; Craig & Washington, 2004). Prior to the development of DDMs, the prevalent method of quantifying AAE usage was by determining the percent of vernacular features produced in "obligatory contexts", or verbal situations where an AAE speaker could optionally utilize a characteristic AAE feature (Brown, 1973). Craig and Washington (2006), however, argue for the development of a DDM due to the fact that it is not always clear when an AAE feature is required.

The Craig and Washington (2006) DDM uses a predetermined list of AAE features, calculates the total number of features that occur in a speech sample, and divides that total by the number of "communication units," or utterances, in the sample.³ This allows them to account for the fact that an utterance may contain more than one AAE feature. To account for the fact that young children's utterances are much shorter than those of older children and adults, they also compute the total number of features divided by the total number of words.

Some patterns in the vernacular use of African Americans have been identified using Craig and Washington's DDM. In Craig and Washington's (2004) study of school-aged children, there were two very clear changes in vernacular use based upon age. First, there was a sharp decline in the use of morphosyntactic features attributable to AAE among children between preschool and first grade. Interestingly, though the overall use of

³ The definition of "Communication Unit" is discussed further in the Methods portion of this thesis.

morphosyntactic features decreased, the children used a larger variety of features as they aged. The second shift was seen between third and fourth grade. The use of total AAE features dropped at this point, largely because of a reduction in phonological features (Craig et.al., 2003). Comparisons of different community types also demonstrated significant differences. Studies found that African Americans in a “mid-size central city” utilized AAE features half as often as those from an “urban-fringe community”⁴ (Thompson et al., 2004; Craig & Washington, 2004). The effects of socioeconomic status and gender are thus far indeterminate, but have been noted as ripe for further study (Washington & Craig, 1998; Craig & Washington, 2004). Finally, differences in AAE use due to situational context have been revealed using a DDM. In studies of younger children, it was determined that AAE features were used much more frequently in situations where the children spontaneously described pictures versus when they either read SAE text aloud or wrote a story (Thompson et al., 2004; Craig & Washington, 2004). These examples show the assortment of ways that DDMs have been used to quantify AAE production.

2.4 Style shifting in AAE

Despite the lack of study on style shifting behavior in African American youth, there is a growing amount of literature on shifting in adult AAE speakers. Much research has demonstrated that the situational context has a significant effect on the amount of vernacular used by a speaker. Ervin-Tripp (2001) indicates that certain circumstances, such as addressee and speech conditions, trigger style shifts among all monolinguals. This section

⁴ The “mid-size central city” was a college town in Michigan where the percentage of African American students in the public schools was 16%; the “urban-fringe community” was also in Michigan, but 86% of the student body was African American (Standard & Poor’s School Evaluation Services).

will cite literature that demonstrates how these and other situations are responsible for variation in AAE.

First, style shift has been noted to occur in response to a speaker's conversational partner. Speakers tend to use more vernacular with addressees that they consider peers or are familiar to them. Rickford and McNair-Knox (1994) contend that these significant shifts are not due to accommodation alone because they reflect the social characteristics of the addressee rather than his linguistic behavior.⁵

Speech conditions may also be responsible for changes in dialect use. Ervin-Tripp (2001) notes that there is a dichotomy between speech versus writing, planned versus unplanned speech, and face-to-face conversation versus a speech presented to a group of people. Work by Labov (1966) supports the notion that the disparity between formal and informal speech conditions affects AAE speakers. He found that in a more formal situation like an interview, speakers use fewer vernacular features. Studies of younger children also support these findings. In a study of 3rd graders, children used more vernacular features when describing a picture than during reading or writing tasks (Thompson et al., 2004).⁶ Such studies show that when the speaker is in a situation in which SAE is the more accepted speech style, the proportion of standard features in his language increases. Under such conditions, a speaker therefore seems to pay closer attention to his speech.

Discussion topic is another factor that affects speech style among AAE speakers. Using an interview situation to hold the speech conditions constant, studies by Labov (2001) looked

⁵ Communication Accommodation Theory described speakers' unconscious tendency to change their speech style to match that of the interlocutor (Street & Giles, 1982).

⁶ Other studies like that of Charity (2002) showed no dialect shift among elementary school children during a story retell task versus a sentence imitation task. Perhaps the speech conditions of story retell and sentence imitation were not sufficiently different to spark a significant change in vernacular use, as both are a type of repetition. This suggests that more study is needed to determine the effect of individual characteristics of language tasks.

at how the interviewer's manipulation of topic resulted in changes in the interviewees' vernacular use. In response to more typical interview questions about the interviewee's background, subjects used more "careful" speech, which had a larger proportion of SAE features. When the interviewer directed the conversation toward topics that were of "maximal interest and emotional involvement" to the subject, more "casual," or vernacular-laden, speech was used. Thus, topic had a clear effect on the language of the study subjects.

Analyses of style shift in AAE have exposed an interesting phenomenon: certain AAE features are much more sensitive to situational differences than others. The features that demonstrate the greatest sensitivity to style are those that are often more socially marked (Labov, 2001; Rickford & McNair-Knox, 1994). Thus, those features that are characterized as stereotypical vernacular features are more prone to shift in response to a change in the situational context. For example, features such as invariant *be* (e.g., *She be talking* to indicate that 'she' habitually talks) and copula absence (e.g., *She nice* for *She's nice*) demonstrate greater amounts of shift than other AAE variables (Rickford & McNair-Knox, 1994); these are both particularly salient features of AAE. In contrast, prevocalic cluster reduction (e.g., *bes' apple* for *best apple*) has proven to be a more robust feature (Labov, 2001). This feature is not as closely associated with AAE in the minds of most English speakers and is thus less discernable as a vernacular feature than invariant *be* and copula absence. This patterning shows that shifts in speech style are not merely dependent upon the situational context, but on the speaker's perception of individual linguistic features as well.

2.5 Summary

As this section has demonstrated, a great deal of work has been done on general style shifting behavior and on the characteristics of AAE. Studies have shown that several situational variables can trigger changes in the amount of vernacular used by all monolingual speakers. Research has also shown that these behaviors were demonstrated by AAE speakers in particular and that certain vernacular features are more variable given changes in situational context.

AAE has been studied closely, as it is one of the most prominent varieties of American English. Research has attempted to isolate those features that are characteristic of AAE, though the existence of different varieties of AAE and its overlap with SAE and other dialects of English can complicate this process. While the DDMs developed by Craig & Washington (2004, 2006) have proven to be a useful tool in quantifying a speaker's AAE use, their application to certain variables like gender and socioeconomic status has shown that these measures have their limitations. The remainder of this thesis looks to address these issues.

CHAPTER 3

METHODS

This thesis examines style shifting behavior in African American adolescents. It also evaluates the applicability of DDMs like that of Craig and Washington and proposes the notion that rather than using one general DDM, it makes sense to construct specialized measures to quantify different behaviors. The main attempt to accomplish this involved creating a measure that utilizes a subset of features that are particularly relevant for assessing speech style modification due to situational context. This was done by analyzing data from 50 African American youth who took part in a study of AAE and literacy.

In this chapter, I will first describe the goals, recruitment methods, and subject sample of the longitudinal study from which this thesis takes its data (§3.1) and then focus in particular on the procedures for the Grade 6 visit, as this was the age group of interest (§3.2). Next, I will describe the steps that were taken in developing a list of AAE features that were used to code the data (§3.3) as well as the protocol used in the transcription and coding of the data (§3.4). A short summary of the data is presented in the final section (§3.5).

3.1 Longitudinal Study: African American English and Its Relation to Literacy Skills in Early Adolescence

The data used in this thesis were collected as part of a longitudinal study conducted by the Frank Porter Graham Child Development Center under the direction of Dr. Joanne

Roberts. This project examines the production and development of AAE use in African American children in central North Carolina from birth through high school.⁷ Although only data from the Grade 6 visit was analyzed for this paper, it is useful to look at the study as a whole to better understand the reasoning behind the selection and organization of data. This section will delineate the overall goals of the study (§3.1.1), subject selection and recruitment (§3.1.2), and the methodology utilized throughout the study (§3.1.3).

3.1.1 Goals and Hypotheses of the Longitudinal Study

The longitudinal study has three main goals: a) to determine whether a link exists between vernacular use and literary success in school; b) to describe the use of AAE among young speakers; and c) to determine the extent to which the formality of a given situation affects AAE usage. The investigators hope to gain a better understanding of variation in AAE and determine whether children who are more competent at shifting between standard and vernacular speech perform better academically. This information will subsequently be used to address the issue of the gap that exists in academic achievement between African American students and their non-minority peers.

In formulating the study, the investigators put forth several specific hypotheses. First, they speculated that children whose peers and/or mothers utilized more AAE features in their speech would exhibit a high incidence of AAE as well. They also suggested that all AAE speakers would use fewer AAE features in more formal situations, as well as with unfamiliar partners. Additionally, they proposed that those middle school students who used less AAE

⁷ The majority of the funding for this project has been provided by the Maternal and Child Health Bureau (MCJ-370599, MCJ-379154 & MCJ-370649, R40MC-00343), and the project has recently been funded by the National Science Foundation (NSF BCS-0544744). This funding will allow for the continuation of this study through 2009.

in formal situations possess greater mastery of SAE and would therefore demonstrate more advanced reading abilities. A related hypothesis was that youth who generally use AAE less often over time would have more success in the acquisition of reading skills. Thus, African American students who are more proficient in SAE and/or at shifting between AAE and SAE would experience more academic success. Finally, they asserted that the relationship between vernacular use and reading ability in middle school would be partly explained by “youth characteristics” like metalinguistic awareness and attitudes toward school.

The purpose of the present thesis ties in well with these overall project goals. This work aims to explicitly address the research question regarding differences in the amount of vernacular used by adolescents in formal versus informal situations. More importantly, it seeks to create a measure of style shift that would be of great use not only in better understanding language variation in general, but also in predicting a student’s likelihood of academic success. Thus, this thesis strives to both directly and indirectly speak to the issues of interest in the larger project.

3.1.2 Study Participants

The overall study recruited a “longitudinal sample” of 70 African American adolescents from low- and middle-income families. The sample is comprised of 32 males and 38 females, which were recruited within a 3-year period. The mean age of the subjects was 8.1 months, with an age range of 6 to 12 months at the time of recruitment. Criteria for recruitment were: a) subjects must be African American; b) subjects must have no genetic disorder or other serious complications at birth; c) subjects must have a birth weight greater than 2,500 grams; and d) subjects must attend one of nine local childcare centers. Upon

entry into the study, 71% of participants came from families living below the poverty level according to federally defined guidelines.

In March 2006 the ages of the study subjects ranged from 13 to 15 years of age. Seven of the study subjects were in 7th grade; 36 subjects were in 8th grade; 21 subjects were in 9th grade; and six subjects were in 10th grade. The 70 youths attend twenty-nine different schools in eight school districts. These schools spend \$5,969 to \$9,076 per student, with a mean of \$7,267. The proportion of these children who receive free or reduced price lunches varies from 12% to 73%.

In Grade 6, each of the study subjects from the longitudinal sample recruited a friend to participate in the study. These new subjects were the same sex, approximately the same age, and most attended the same middle school as their counterparts. The primary purposes in recruiting these new subjects were to increase the sample size and to provide an informal peer situation so that the study could assess contextual shifting in speech styles. Three of the subjects selected a European American friend, and four declined to have a friend participate. In the latter case, the investigators recruited youths of the same age and gender as the longitudinal subjects in question; this was done in order to enlist a total of 70 additional participants. This “newly recruited sample” will be followed through tenth grade.

3.1.3 Longitudinal Methods

The experimenters have documented the subjects’ language and literacy skills in family and school environments from infancy through their current grade level, which ranges from seventh to tenth grade, depending on the subject. The subjects were administered standardized and nonstandardized language exams annually from 1 year of age through fifth

grade. During this same time period, annual measurements of subjects' home and school or childcare environments were taken. Standardized tests assessing early literacy skills were given from 4 years of age through fifth grade.

Beginning in middle school, the study implemented several other types of measures to study the youth, as well as their parents and teachers. These measures were meant to assess formal and informal language use through peer and adult tester interactions.⁸ For example, in one visit subjects engaged in tasks with two different adult examiners. The formal task was a mock job interview, and the informal task was a discussion of music. Family and school measures at this age included family interviews, teacher questionnaires, and descriptions of home environment and school characteristics.⁹ Other measures of literacy and metalinguistic awareness were assessed by means of standardized tests and more carefully directed interactions.

3.2 The Grade 6 Visit

For the purposes of this thesis, only data from the Grade 6 visit was used. As mentioned in the explanation of recruitment methods, at this stage of the study each participant was paired with a peer counterpart. Though various measures of home and school were used in Grade 6, this thesis focuses on the portion of the visit that looks at the interaction between the peer dyads.

⁸ The Grade 6 peer interaction will be thoroughly described in section 3.2.

⁹ Home environment characteristics included measures of language stimulation, responsivity, cognitive stimulation, and emotional support; School characteristics were level of poverty within the school district and racial composition of the school, as obtained from the National Center for Education Statistics (Snyder & Hoffman, 2003).

The Grade 6 peer protocol included tasks that were designed to create both formal and informal peer situations. Each of these tasks was recorded both on audio and videotape. The investigators determined the formality of each task using Labov's "principle of attention to speech" (1966). This definition describes a formal situation as one in which the participant pays more attention to his speech; an example would be a conversation with a stranger about an unfamiliar topic. A more informal task would be one in which the subject converses with a peer about an issue of mutual interest.

Each pair of students completed two formal tasks followed by two informal tasks. The first formal task was a mock speech to parents of children who would be entering their school in the fall. The subjects were instructed to plan the speech together for several minutes. They were directed to describe their school and provide information and advice that would be helpful for an incoming student. They then individually performed the speech in front of a one-way mirror/window, pretending that they were addressing a panel of teachers who were going to choose a student to give the speech. They were told that there was a 5-minute limit on the speech. After both subjects performed the speech, they were told to address the panel again one at a time and explain why each was the most qualified student to perform the speech.

The second formal task followed a similar procedure. In this task, the subjects planned and presented a "kids-only vacation."¹⁰ The peers were told to plan a vacation for kids only in a locale where neither youth had been before. They were given a planning sheet that instructed them to list information about the trip (i.e., where they would travel, who would accompany them, what they would bring, what they would do, etc.). After an 8-minute planning period, the subjects were told to stand in front of a two-way window and to present

¹⁰ This task was based on a similar task from the NICHD Study of Early Childcare.

the vacation to an author of a book about vacations for kids. Each subject presented individually and was allotted 4 minutes for the speech. After both subjects presented, they were instructed to tell the author why their vacation would be appropriate for kids and therefore should be included in his book.

The first informal task, a free talk period while the subjects ate a snack, was conducted directly after the “kids-only vacation” task in the majority of cases.¹¹ At this time, the youths were provided with a choice of snack and were then left alone. They were given no instruction as to conversation topic; the experimenter merely indicated that she would return in 10 minutes. The subjects were recorded for the entirety of the snack period but this was not explicitly mentioned in order to create a more comfortable environment for the participants.

The second informal task, an issue discussion, occurred at the end of the visit.¹² It followed two other non-linguistic tasks that were not utilized in this thesis.¹³ In this task, the subjects were directed discuss two issues or problems that they had selected at the beginning of the visit. Each subject was supposed to present one of his issues and explain why it is a problem. The other youth was then instructed to offer advice as to how the problem might be solved. The subjects alternated offering problems for discussion until the experimenter reentered the room.¹⁴

¹¹ In a few cases, the children were given the option to have their snack as the last task in the peer interaction. The children were given this choice in cases where they had recently eaten lunch.

¹² As previously noted, in a few cases the snack was implemented as the final task of the peer portion of the visit.

¹³ Between the snack and the issue discussion, the subjects played two games: Jenga and Stomp & Share. These tasks were not meant to elicit a language sample, and were therefore of no import for this study.

¹⁴ Technically, the participants were given up to 10 minutes for the issue discussion. In some cases, however, the subjects finished the task before the time limit and requested that the experimenter return to the room.

3.3 Determination of AAE Features Used in Coding

In order to evaluate the degree of vernacular use among the study participants it was necessary to create a list of features that would be diagnostic of their language. As mentioned in §2.3, however, determining a list of characteristic AAE features is a very difficult task. In order to simplify the task of creating a feature list, we began by evaluating Craig and Washington's (2006) DDM. Their measure is divided into two lists: morphosyntactic features and phonological features.¹⁵ For reasons that will be discussed momentarily, it was decided to retain the entire list of morphosyntactic features, but only three of the phonological features. The selected phonological features were nasal fronting, in which /n/ is substituted for /ɲ/ (e.g., *swimmin'* for *swimming*); prevocalic cluster reduction, where a word-final consonant cluster is reduced when followed by a vowel (e.g., *bes' apple* for *best apple*); and labialization, where /f/ is substituted for /θ/ (e.g., /maʊf/ for *mouth*) or /v/ is substituted for /ð/ (e.g., /ʌðv/ for *other*). These particular phonological features were chosen because they have been shown in various studies, including the literature mentioned in Chapter 2, to be particularly prevalent in style shifting (Labov, 2001; Rickford & McNair-Knox, 1994).

The list of morphosyntactic features includes all of those listed in Craig and Washington's DDM as well as six additional morphosyntactic features. These features are those that vary from SAE with regard to word order or involve free and bound morphemes (Craig & Washington, 2006). The additional morphosyntactic features were selected through consultation with various sources, including Rickford (1999), Green (2002), and Wolfram's Dialect Profile Form (1997) from the Baltimore city school district.¹⁶ The reason for

¹⁵ All of the features listed in Craig and Washington's 2006 DDM are listed in Appendix III.

¹⁶ The added morphosyntactic features were past form for participle, regularization of irregular past tense form, zero relative pronoun, uninverted direct question, inverted question without *if/whether*, and regularized *mines*.

including all of the Craig and Washington features was to facilitate more direct comparison between their original DDM and other proposed measures.

As mentioned previously, there was a strong emphasis on morphosyntactic features. Several factors influenced this decision. First, morphosyntactic features do seem to have some kind of social salience; since people are more aware of them than phonological features, they may consciously manipulate them more frequently than phonological features.¹⁷ Additionally, phonological features may be more difficult to manipulate not only due to lack of prominence to the speaker, but also because it is more difficult to consciously reproduce the correct phonological pattern. Also, morphosyntactic features may be more interesting because they relate to other parts of the syntax and play a larger role in literacy. Finally, Craig and Washington (2006) point out that younger speakers often do not possess the oral-motor skills necessary to reliably make use of phonological features like cluster reduction. Thus, it is unclear whether such speakers are using a phonological AAE feature or are simply exhibiting a delay in motor skills. Such problems are generally found in preschool and elementary grade students, but are still cause for concern with using phonological features for younger speakers. For these reasons, morphosyntactic features were emphasized in the evaluation of style shift.

Additionally, we found it important to separate some features that are conflated in the Craig and Washington DDM. For example, while the Craig and Washington measure combines all forms of subject-verb agreement, our measure separates this feature into four

¹⁷ The idea of “salience” is an elusive construct for linguists. Different fields of linguistics (e.g., sociolinguistics and linguistic anthropology) view saliency differently. Additionally, what is “salient” to speakers is not equivalent to what is “salient” to those who study language. This project may contribute to the discussion of saliency by drawing attention to those linguistic structure people pay attention to, both consciously and subconsciously.

specific categories: addition of inflectional *-s* on non-third person singular subjects, absence of non-third person singular *-s*, generalization of *is* and *was*, and difference in number between the subject and the modal auxiliaries *do* and *have*. Separating certain features into more specific classes allows one to better understand what exactly occurs during style shifting.¹⁸ Additionally, some of the features that are conflated by Craig and Washington may be different enough to show very dissimilar behaviors. For example, the absence of the possessive marker *- 's* on a noun is a very different process from substituting a nominative or objective case pronoun for a possessive pronoun. By separating such features we are then not only able to look at them individually, but also have the option of conflating them if desired. The complete list of coded AAE features is found in Appendix I.

3.4 Transcription and Coding Procedure

The peer interaction was first transcribed and then coded for the existence of certain AAE features. §3.4.1 details the data and equipment that were used to transcribe and code the data. In §3.4.2, the exact segments of the Grade 6 visit that are transcribed and coded are delineated. §3.4.3 outlines the procedures for transcribing the data, and §3.4.4 describes the methods for then coding the transcripts. In each section, the protocol for dealing with problems in that particular area is discussed.

¹⁸ Other features that are divided in our proposed measure are the use of *ain't* (into *ain't* meaning *did+not* versus *are+not*, *is+not*, or *have+not*); undifferentiated pronoun case (into the use of nominative and objective pronouns used interchangeably versus the use of the objective form for the demonstrative); double marking (into multiple agreement on irregular plural nouns versus pronouns versus irregular verbs); zero possessive (into deletion of the possessive *- 's* marker versus the use of the nominative or objective pronominal form rather than the possessive pronoun); double copula/auxiliary/modal (into double copula or auxiliary versus double modal).

3.4.1 Data and Equipment

The peer interaction was recorded on both audio tape or CD and on 8mm video. The data from the audio files was coded for all subjects when available.¹⁹ When any aspect of the recording (e.g., speaker identification) was questionable or if large portions of speech were unintelligible, the information was verified using the video recordings of the interaction. The videos could be viewed on any 8mm videocassette recorder. The Express Scribe program was used to listen to the audio recordings. This program was downloaded onto computers or laptops from the manufacturer's website.²⁰ The benefit of using the Express Scribe software was that it allowed the user to easily play, pause, fast-forward, rewind, and alter the speed of the recording. Headphones were used when listening to both the audio and video recordings in order to maximize intelligibility.

3.4.2 Amount of Data Used for Transcription and Coding

As described in §3.2, the peer interaction from the Grade 6 visit was transcribed. The two formal contexts, "Speech to Parents of New Children" and "Kids Only Vacation," were transcribed in their entirety for all subjects. In these contexts, transcription commenced when each subject began the speech and ended when the subject finished the speech. Each subject's "follow-up" speech was also transcribed, but the period between the initial presentation and the follow-up speech was neither transcribed nor coded. Any conversation between the two subjects or between the subjects and the experimenter was not considered

¹⁹ Due to technical difficulties, some subjects did not have audio or video recordings. Those without audio were not transcribed or coded; those without video were used, as the audio was mainly used for transcription purposes.

²⁰ The website for the Express Scribe manufacturers is <http://www.nch.com.au/scribe/>. The link to download the installation software is available on this page. The software is then downloaded onto the computer and creates an installation icon, which then prompts the user on how to finish installation.

formal speech and therefore was not coded for AAE features; it was, however, noted in the transcripts.

For the informal context, the “Issue Discussion” was coded first for all subjects because of superior intelligibility.²¹ In cases where at least one subject did not have a total of 50 communication units in the “Issue Discussion,” the “Snack” portion of the interaction was transcribed until that number was attained.²² In these contexts, transcription began when the experimenter left the room and ended when she reentered and announced the conclusion of the task. In some instances, the experimenter returned to the room before the end of the task; any speech or interaction while the experimenter was present was not transcribed.

To be included in data analysis, each subject needed at least 72 intelligible communication units. The mean number of words per communication unit was 10.02 in the formal contexts and 5.92 in the informal contexts. In the formal contexts, a minimum of 24 total communication units was required of each subject. Although 50 communication units were transcribed for all subjects when possible in the informal contexts, a minimum of 48 communication units were required to be included in analysis. Because of the discrepancy in average utterance length, twice as many communication units were required in the informal contexts versus the formal contexts. This determination, then, allowed for the amount of data extracted from the two contexts to be more balanced.

²¹ Intelligibility was hampered in the “Snack” portion because the subjects were eating and making a great deal of background noise with wrappers, etc.

²² 50 communication units were available for all but 4 subjects. 50 communication units were not available for those 4 because of premature termination of the snack and issue discussion and/or technical problems that resulted in loss of audio data.

3.4.3 Transcription Procedure

The tasks detailed in §3.4.2 were orthographically transcribed in Microsoft Excel. Each speech or task was saved as a separate file. The subjects' language was separated into communication units, with one communication unit placed in each row of the Excel file. Communication units were determined based on the criteria set in Craig and Washington (2006) and Loban (1976). In these works, a communication unit is defined as “an independent clause plus its modifiers.” The main condition for determining segmentation in multi-clausal utterances was whether the second clause contained a subject. Thus, in the examples below (1) was scored as two communication units, while (2), (3), (4) and (5) were scored as a single communication unit.

- (1) she made um like a circle / and then she made something
- (2) um the peoples fall down and go in the snow
- (3) I'll play with anything here but not no girl stuff
- (4) I'm gonna change her clothes 'cause she been baseballing
- (5) and somebody helping somebody that's bouta get in a in a ice puddle

In (1), there are two independent clauses, each with a subject. (2), (3), (4), and (5), each contain only one independent clause and a modifier, which is underlined: (2) and (3) contain a coordinate clause; (4) contains a subordinate clause; (5) contains a relative clause.

There are several exceptional cases that had to be considered when transcribing the data. First, when a communication unit was repeated verbatim, the second repetition was counted as a separate communication unit. The exception to this was cases like (6) where the communication unit consists of only one repeated word. In this instance all consecutive repetitions were counted as one unit.

- (6) Why why why why?

In other cases, an utterance that was not a complete clause was considered to be a communication unit. Based on Hughes et al. (1997), there are three such instances. The first was that an answer to a question was considered a communication unit provided that the answer only lacked the repetition of the question elements.

- (7) Went home (in answer to *What did you do then?*)
- (8) Down their hole (in answer to *Where did they go?*)

Second, each elliptical *yes* or *no* answer was counted as one communication unit.

- (9) Yes (in answer to *Have you ever been sick?*)

Additionally, if a phrase followed *yes/no* to expand on it, this was considered a single communication unit.

- (10) Yes (pause)....and my momma is going too

Third, each utterance that was not a main clause but was preceded and followed by a terminal silence was counted as one communication unit.

- (11) Couldn't understand what he was saying (where the previous communication unit was *He wanted something* followed by a pause)
- (12) A whole lot of hyenas (where the previous communication unit was *He has hyenas who are his friends* followed by a pause)

Finally, a repetition in the middle of an utterance was considered as part of that communication unit.

- (13) She said that I...that I should work harder

Coders transcribed each task separately and saved each to its own Excel document. The title of that document indicated the Subject #(s), actual grade, and context (e.g., 1010_G6_F1 or 1010_2015_G6_I2), and each document was stored in a folder that denoted the numbers of the subject pair (e.g., 1010-2015). This folder contained all of the data files for the subject pair.

As described previously, each line of the Excel document contained one communication unit. The speaker was indicated in each line by citing the subject ID number. In the transcription process, the coder listened to each task 4-5 times before moving on to the next task. On the first run, the coder listened to the audio and transcribed as well as possible, rewinding as necessary. Next, the coder listened to the audio for the task in its entirety again to check the validity of the morphosyntactic features in the transcript. The coder then listened to the audio 2-3 more times to check for phonological features, focusing on specific features on each run. When sections of the audio were unintelligible, additional runs were necessitated. This will be discussed further presently.

As noted above, all of the data were transcribed orthographically, taking care to notice any divergence from the SAE form. This facilitated the subsequent step of coding, as the AAE features of interest were then noted in the transcript. The following communication units are lines from actual transcripts. Example (14) demonstrates copula absence and (15) shows third person singular *-s* absence.

(14) Yeah but people mad at us (ID 1025 I2)

(15) She talk too much (ID 2004 I2)

Because it necessary to actually hear a phonological feature, it was important to note these features by including missing or substituted sounds in parenthesis on the transcript.

(16) No I'm playin(g) (K268 I2)

(17) And then you could put it in your mou(th) and then just swallow it
(1092 I2)

With the exception of a few specific cases, no punctuation was included in the transcript. With regard to typical punctuation, the marks that were utilized were '?' to indicate a question, commas to indicate a list, ellipsis markers (...) to indicate long pauses, and

apostrophes to indicate possession and contractions. Period, exclamation points, and other uses for commas were not included in transcription.

Several other conventions were used when transcribing. First, when subjects spoke at the same time, this was indicated with square brackets as in (18).

(18) 2001: You might just have to [XXX XXX] all them girls in his videos
1010: [Girlfriend...girlfriend] (I2)

Verbal disruptions, or cases where the speaker does not complete an utterance, were not counted as communication units and were identified by placing the utterance in angled brackets (< >). When a subject started an utterance, paused in mid-sentence and then repeated and subsequently finished the utterance, it was transcribed as follows:

(19) <I didn't know>
I didn't know he was gonna be there

A protocol for dealing with problems common in transcribing audio files was available for all transcribers. First, it was occasionally difficult to identify which subject was speaking, especially in the informal context. If this occurred, the coder was instructed to watch the DVD/video of the session to determine the speaker. Also, it was generally not evident in the initial stages of transcription which ID number should accompany which speaker. To determine this, the coder had to verify the subject's first name from the audio. This information was then compared with a list of subject names and ID numbers to match up the speaker with the ID number. If this still did not clear up the matter, the coder was told to consult with a staff member at Frank Porter Graham Child Development Institute who was familiar with all of the study subjects to help with identification. Finally, it was difficult to hear or understand the speakers in some cases. As discussed above, all of the data was also available on DVD or 8mm video. After transcribing and coding all of the tapes, the coder

looked for inaudible portions of the transcripts and used the videos to try to fill in those gaps in the data. After listening to a given audio segment three times, any unintelligible words were marked with three X's (XXX), with each set of X's indicating one missing word.

(20) Yeah XXX is your house XXX (2001 I2)

3.4.4 Coding Procedure

Both the phonological and morphosyntactic features described in §3.3 were coded using the feature list in Appendix I. Each three-character code was entered into its own “feature code” column in Excel. The Excel file allowed up to 10 codes to be entered for each communication unit²³. If a communication unit contained no AAE features, this was marked with a code of OOO.

Additionally, the absence of certain AAE features when they could have been used by the speaker was coded. This allowed us to create a proportion of actual AAE feature use over the total number of occasions where the feature might have been used, better indicating the degree of the speaker's variability. Three features were coded for these “potential” cases: nasal fronting, copula absence, and modal auxiliary absence. These features were selected because they were found to be the most commonly used features in a subset of 12 subjects.

Several other codes were used to indicate utterance characteristics that were not associated with AAE. As discussed in §3.4.3, elliptical utterances were counted as one communication unit. These non-clausal responses to a direct question (e.g., *yes*, *uh-uh*, *pizza*, *after school*) were marked with a separate code. In cases where less than twenty percent of an utterance was unintelligible, it was marked as “partially unintelligible” and was counted as a viable communication unit. When more than twenty percent of the entire unit was

²³ None of the transcripts coded contained a communication unit that contained ten or more AAE features.

unintelligible, it was considered “fully unintelligible” and was not counted as a communication unit and was not included in any analyses. Verbal disruptions (i.e., where a speaker abandons an utterance or is interrupted for any reason) were placed in angled brackets, assigned a code, and were not used in analysis or considered as communication units.²⁴

(21) <A typical day in Brogden Middle School you> (2023 F1)

Fillers were also coded, but were discounted for analysis purposes. These are words like *OK*, *yeah*, and *uh-huh* which are not in answer to a direct question but are used as space fillers.

Other relevant information was included in the Excel file. First, those utterances that met the eligibility criteria and the communication unit definitions discussed in §3.4.3 were numbered consecutively. Also, the start and stop time of the dialogue was noted in the spreadsheet. The time of any gaps in the audio (i.e., long gaps of time where the recording was inaudible) or the presence of the experimenter was noted. The speaker ID number was entered for each communication unit.

Additionally, the total number of words for each communication unit was noted. Several potential issues were identified in completing this task. First, contractions were counted as the number of words that make up the form.

- (22) a. wasn't = was+not = 2 words
b. I'ma = I+am+going+to = 4 words

Fillers like *uh* and *um* were counted as half words, as were partial words (e.g., *mi-* for *middle*).²⁵ Word counts were not conducted for non-communication units.

²⁴ Even disrupted utterances containing a complete clause were excluded from analysis.

²⁵ These determinations were made based on the conventions set forth in Loban (1976).

Finally, each file contained the following information on the top row only. First, the file name, containing the ID number(s), task type, and the subject's age grade were entered.²⁶ Additionally, both the experimenter and coder's initials were included, as were the date of testing and the date of coding. The subject's actual grade and initials were entered to ensure that information for the correct person had been entered.

3.5 Summary

The data used in this study relied heavily on the methodologies of Loban (1976) and Craig and Washington (2006). However, this project attempted to further their work by looking at additional AAE features, utilizing stringent coding procedures, and focusing specifically on style shift. Because this data was taken from a longitudinal study, it was possible to investigate numerous influences on the linguistic behavior of these adolescents. Chapter 4 will discuss the information that was garnered through analysis of this data.

²⁶ The subject's age grade is the grade in school that he would be in if he had completed one grade per year (i.e., if the child was not held back or skipped a grade).

CHAPTER 4

ANALYSIS AND DISCUSSION

In this chapter I report the results of statistical analyses conducted on the data discussed in Chapter 3 and discuss the implications of these findings. The first section details subjects' use of the individual AAE features (§4.1). Next, I discuss the methodology in calculating the summary variables (§4.2) and compare the values of these measures in the two contexts (§4.3). The subsequent sections directly compare the computations of the different summary variables (§4.4) and address differences in the variety of features in the different contexts (§4.5). The final section presents a summary of these results and discusses their implications (§4.6).

4.1 Subject Use of Individual AAE Features

Each of the AAE features studied was analyzed individually. §4.1.1 presents the descriptive statistics for subject use of each of the individual vernacular features and discusses their characteristics. §4.1.2 looks at the coded potential features and at the proportion of nasal fronting, copula absence, and modal auxiliary absence to their respective potential codes.

4.1.1 Descriptive Statistics for Individual AAE Features

Descriptive statistics for each individual AAE feature were calculated separately for the formal and informal contexts and are shown in Table 1.

Table 1. Mean number of instances (standard deviation) of each AAE feature by context

AAE Feature	Formal Contexts (N=50)	Informal Contexts (N=50)
NAS	5.82 (4.18)	8.94 (5.66)
OCO	0.98 (1.40)	3.46 (2.70)
OMA	0.74 (1.34)	3.08 (2.32)
OPL	0.48 (0.89)	0.36 (0.63)
LEV	0.48 (0.81)	0.56 (0.84)
PCR	0.38 (0.70)	0.26 (0.49)
IBE	0.30 (0.71)	0.70 (1.18)
LAB	0.28 (0.78)	0.34 (0.66)
M3S	0.26 (0.66)	1.06 (1.63)
INA	0.24 (0.62)	0.24 (0.62)
OTO	0.22 (0.55)	0.34 (0.92)
APP	0.20 (0.49)	0.28 (0.54)
OPR	0.16 (0.42)	0.20 (0.53)
OAR	0.16 (0.42)	0.20 (0.40)
UNO	0.16 (0.37)	0.12 (0.39)
TSA	0.12 (0.39)	0.38 (0.67)
NEG	0.12 (0.33)	1.40 (1.50)
RPF	0.10 (0.36)	0.04 (0.20)
EXI	0.10 (0.30)	0.14 (0.40)
OPT	0.08 (0.27)	0.58 (0.99)
OIN	0.06 (0.42)	0.04 (0.20)
AI1	0.04 (0.20)	0.68 (0.94)
OPP	0.04 (0.20)	0.06 (0.24)
OPS	0.02 (0.14)	0.20 (0.53)
UOD	0.02 (0.14)	0.20 (0.49)
AI2	0.02 (0.14)	0.16 (0.42)
IPT	0.02 (0.14)	0.08 (0.34)
DMN	0.02 (0.14)	0.04 (0.20)
RRF	0.02 (0.14)	0.02 (0.14)
P3S	0.02 (0.14)	0 (0)
DCA	0.02 (0.14)	0 (0)
BDA	0 (0)	0.40 (0.95)
FBS	0 (0)	0.14 (0.35)
DON	0 (0)	0.12 (0.39)
ORP	0 (0)	0.08 (0.27)
DMV	0 (0)	0.04 (0.20)
HAD	0 (0)	0.02 (0.14)
UDQ	0 (0)	0.02 (0.14)
MIN	0 (0)	0.02 (0.14)
DMO	0 (0)	0 (0)
INQ	0 (0)	0 (0)
RPB	0 (0)	0 (0)
DMP	0 (0)	0 (0)

The above table indicates the mean number of times that each feature was used in a given context. Standard deviations are in parentheses. As Table 1 shows, most of the features were used very infrequently overall; many were used only once or twice by a very small number of speakers, and some were not used at all. This suggests that many of the variables included in the AAE feature inventories in this thesis provided little information when assessing a speaker's vernacular use.

Additionally, there was not an appreciable difference in speakers' use of most individual features based on context. Speakers used most features at approximately the same frequency in each context on average. There were, however, a handful of features that seemed to show more sensitivity to contextual differences. Most noticeable were nasal fronting (NAS), copula absence (0CO), modal auxiliary absence (0MA), third person singular *-s* absence (M3S), multiple negation (NEG), and *ain't* for *is+not* (AI1). The contextual differences for these six feature variables were all statistically significant when an equal variance t-test of the two means was performed.²⁷

Table 2. Results of Equal Variance t-test of 6 AAE Subset Features

Variable	DF	t-value	p-value
0CO	90	-5.18	<0.0001
0MA	90	-5.87	<0.0001
NAS	90	-2.94	0.0041
AI1	90	-4.49	<0.0001
NEG	90	-5.49	<0.0001
M3S	90	-3.18	0.0020

Because these six features seemed especially sensitive to situational context differences, they were selected to construct a subset variable. The purpose of this variable was to

²⁷ It is necessary to note that the distribution of the individual features was quite skewed. Thus, other statistical procedures should be considered to confirm the results from these equal variance t-tests.

determine if a subset variable could reliably correlate with more comprehensive measures. The calculation of this variable and of the other summary measures will be discussed further in §4.2.

4.1.2 Potential Feature Codes

As described in §3.4.4 the absence of nasal fronting (XNA), lack of copula absence (XCO) and lack of modal auxiliary absence (XMA) in environments where they could have been used was coded. Then, a proportion of actual AAE feature use over the total number of occasions where the feature might have been used was calculated.²⁸ Analyses comparing these proportions in the formal contexts versus the informal contexts better indicated the existence of a shift in the use of these features than a simple comparison of frequencies because it accounts for the fact that the testing situation may affect the subjects' opportunity to use a particular feature. Table 3 shows the mean values and standard deviations of these proportions by context.

Table 3. Mean values (sd) of proportion of feature to potential opportunities for use by context

Feature Proportion	Formal Contexts (N=46)	Informal Contexts (N=46)
Copula Absence	0.07 (0.09)	0.22 (0.13)
Modal Aux Absence	0.09 (0.15)	0.50 (0.30)
Nasal Fronting	0.57 (0.30)	0.85 (0.16)

Results of a test of difference for the two contexts showed that the use of all three of these variables was significantly greater in the informal contexts than the formal contexts.²⁹

²⁸ For example, $0CO/(0CO+XCO)$ was calculated to assess the use of copula absence.

²⁹ Results for test of difference of the proportions were as follows: $0CO/XCO$: $F(1,45)=40.46$, $p<.001$; $0MA/XMA$: $F(1,45)=73.89$, $p<.001$; NAS/XNA : $F(1,45)=31.35$, $p<.001$

Thus, these outcomes further support the contention that these three features show a shift in use based on context; the differences are not merely the result of an inequality in the number of opportunities for use.

4.2 Calculation of the Summary Variables

Three summary variables were used and compared in this project. For each measure, the total number of instances of certain AAE features was counted. As previously noted, the features that were studied in this project were initially based on those that were used by Craig and Washington (2006). Each of the measures, however, differed from the others in important and conscientiously designed ways. These differences resulted in both positive and negative aspects to each measure.

The first of the summary measures (CW Measure) was a reduced version of the Craig and Washington measure. In this measure, all of the morphosyntactic features but only the three carefully selected phonological features of nasal fronting, prevocalic cluster reduction, and labialization from Craig and Washington's original feature set were used.³⁰ This measure had the advantage of being the closest match to the Craig and Washington method, which is currently used in dialect research. Thus, it was considered the "benchmark" measure against which we hoped to closely match our other measures. Drawbacks to this measure included the exclusion of other potentially relevant vernacular features and the limitations on statistical analysis that accompany such a large number of variables. The second measure (Full Measure) was conceived to address the first problem; and the last measure (Subset Measure) attended to the second issue.

³⁰ The reasons for the including all morphosyntactic features and only a reduced set of phonological features were discussed in §3.3.

The Full Measure included all of the features of the CW Measure as well as some additional features that were selected.³¹ This measure was created in order to look at the possible contributions of certain morphosyntactic features that were not included by Craig and Washington. The hope was that if any of these additional vernacular features do play a vital role in style shift, this measure would unearth them. Thus, this was the most comprehensive measure of the three. Including even more variables in this measure, however, exacerbated the problem of reducing the number of available statistical analysis techniques.

The Subset Measure consisted of a subset of six AAE features. The six features were selected because they seemed to be the most sensitive to changes in context. This determination was made based on data comparing the means of each AAE feature by context, as shown in §4.1.1. Thus, nasal fronting (NAS), copula absence (OCO), modal auxiliary absence (OMA), third person singular *-s* absence (M3S), multiple negation (NEG), and *ain't* for *is+not* (AI1) were selected for the Subset Measure. There were several advantages to using this measure. First, by choosing the features that were most affected by contextual differences we created a measure that was especially attuned to style shift. Also, a measure utilizing only six features greatly increases one's analysis options. The reduced number of variables allowed for the application of factor analysis and other types of structural equation modeling techniques; measures that include dozens of features are often limited to rudimentary analysis methodologies like t-tests. A possible drawback to this method is that it excluded many other AAE features. This is a valid point if one hopes to use this measure to quantify overall vernacular use, but it may not be an issue if it is specifically used as a measure of style shift.

³¹ The choice of the extra features was described in §3.3 as well.

It is important to note that each of these measures was calculated in two ways: once as a proportion of AAE features over the total number of words and once as a proportion of features over the total number of communication units. Both calculations were performed because each method was imperfect but had its advantages. The total number of words was used in the first approach because there was a context-based imbalance in the number of words per communication unit. As mentioned in §3.4.2, the mean number of words per communication unit was 10.02 in the formal contexts and 5.92 in the informal contexts. This discrepancy meant that in each formal communication unit there were nearly twice as many opportunities for a vernacular feature to occur. Some features, like multiple negation, require the existence of a multi-word utterance to exist, however. Thus, the total number of communication units was used as the other calculation method. This method is also the standard system used by researchers like Craig and Washington (2006). Therefore, calculating the summary variables in this way allowed for more opportunity for direct comparison with other measures. Using both methods allowed us to detect patterns that were strong enough to be seen using all of the summary variables.

4.3 Context Differences

The first analysis conducted using the summary variables was a comparison of the overall vernacular use by context. A repeated measures analysis using the general linear model was performed to account for the dependency between the observations within each child. As Table 4 shows, the difference between contexts was statistically significant using all three summary variables and regardless of how the measures were calculated (i.e., by words or by communication units).

Table 4. Test of difference (context) for each summary measure

Summary Measure	F-value	p-value
CW Measure (CU)	$F(1,45) = 5.87$	<0.02
CW Measure (words)	$F(1,45) = 76.68$	<0.001
Full Measure (CU)	$F(1,45) = 6.92$	<0.01
Full Measure (words)	$F(1,45) = 79.1$	<0.001
Subset Measure (CU)	$F(1,45)=10.13$	<0.002
Subset Measure (words)	$F(1,45)=74.82$	<0.001

Thus, speakers used significantly more AAE features in the informal contexts than in the formal contexts. Figure 1 illustrates AAE feature use by context for the summary measures calculated as a proportion of total communication units.

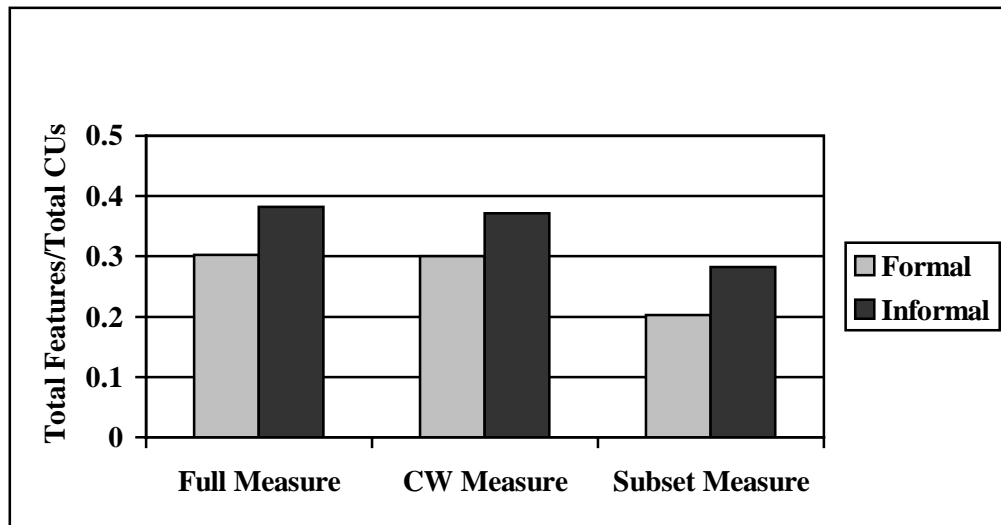


Figure 1. Comparison by context using total communication units in summary measure calculations

Figure 2 indicates the same information for measures calculated over the total number of words.

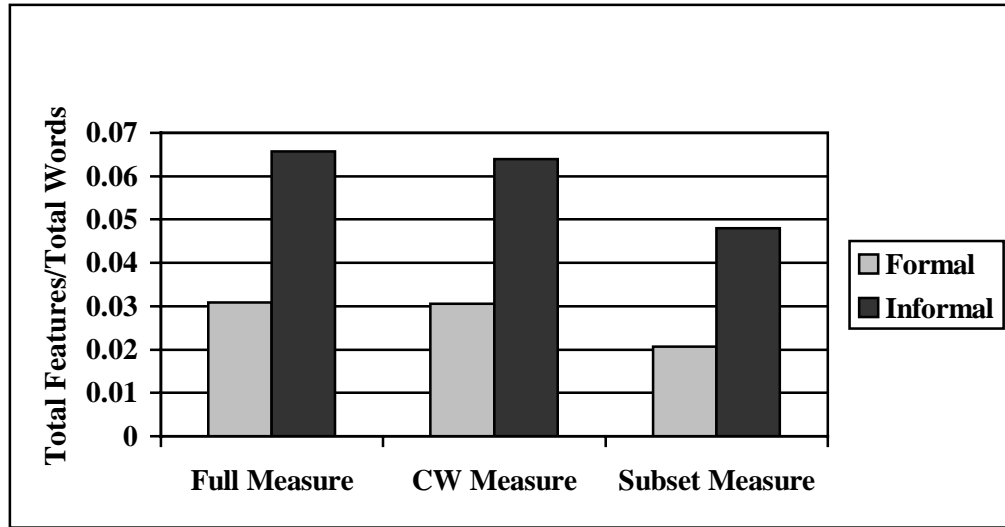


Figure 2. Comparison by context using total words in summary measure calculations

All of these comparisons demonstrated statistically significant differences between measures.

The results of these analyses were expected. As discussed in §2.4, the literature on AAE and on style shift in general cites context formality as a common source of language shift. The most interesting outcome of these analyses was that all of the summary measures were very consistent and reliable. Specifically, the success of the Subset Measure indicated that a measure containing a small number of features can be used to represent stylistic shift. The next step, then, was to directly compare this measure to the other two larger measures to see more clearly how it measured up.

4.4 Direct Comparison of Summary Measures

Correlations among the three measures were calculated to determine how they compared to one another. This was done for the measures that were calculated as a proportion of the total number of communication units (§4.4.1) as well as for those calculated as a proportion of the total number of words (§4.4.2). To more effectively assess the measures' success at

capturing the subjects' style shifting behavior, a third method of comparison was applied (§4.4.3). In this method, a proportion of the formal summary score to the informal summary score was computed for each measure, allowing for a better opportunity to distinguish the difference between formal and informal linguistic behavior.

4.4.1 Comparison of Summary Measures Using Communication Units

The first comparison assessed the measures calculated using total communication units.

Figure 3 illustrates the relationship among these measures by context.

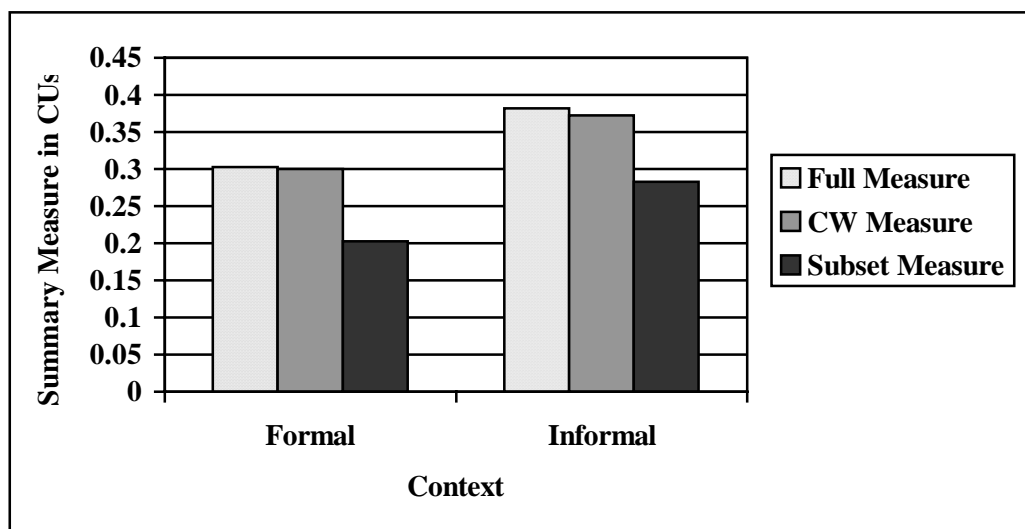


Figure 3. Comparison of all summary measures calculated in communication units

As Figure 3 indicates, the values of the three summary measures were all very close in both the formal and informal cases. Correlations among all of these measures supported this observation, as shown in Table 5 and Table 6 below.

Table 5. Correlations among formal summary measures calculated in communication units

	Subset Measure/CU	Full Measure/CU	CW Measure/CU
Subset Measure/CU	1.00000		
Full Measure/CU	0.91614 <.0001	1.00000	
CW Measures/CU	0.91446 <.0001	0.99835 <.0001	1.00000

Table 6. Correlations among informal summary measures calculated in communication units

	Subset Measure/CU	Full Measure/CU	CW Measure/CU
Subset Measure/CU	1.00000		
Full Measure/CU	0.89405 <.0001	1.00000	
CW Measure/CU	0.92138 <.0001	0.98666 <.0001	1.00000

All of the correlations calculated indicated a very strong positive relationship among the summary variables calculated using communication units. This result was expected for the Full Measure and the CW Measure because they are very similar in nature; the Full Measure contains all of the features included in the CW Measure and a handful of additional features. Given this fact, these measures should be very closely related, and in fact they are, with almost perfect correlations.

The outcome for the Subset Measure was of more interest. Including only six features compared to several dozen in the more comprehensive measures, the scores computed for the Subset Measure clearly could not be as high as the values of the other measures. Thus, the correlations among the Subset Measure and the other measures were extremely informative. These values ranged from 0.89 to 0.92, which are very high positive values. This means that despite the fact that the Subset Measure contains a small fraction of the features included in

formulating the other measures, it did a very good job of capturing the degree to which subjects used vernacular language. Given the drawbacks of using a measure with a large number of variables, this finding is extremely promising.

4.4.2 Comparison of Summary Measures Using Words

The findings for the summary measures calculated using total words were analogous to those for the measures computed with communication units as discussed in §4.4.1. Figure 4 exemplifies the relationship for these measures by context.

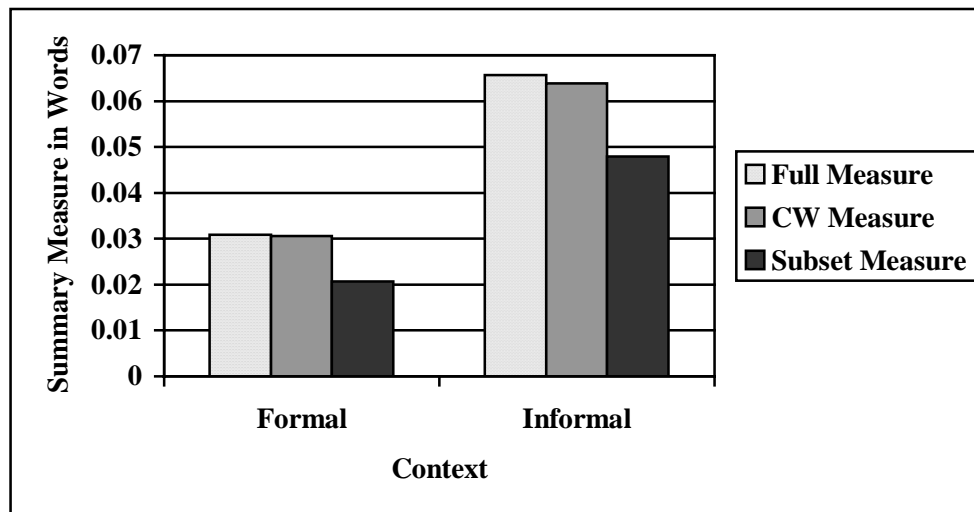


Figure 4. Comparison of all summary measures calculated in words

As with the measures calculated in communication units, the values computed for the three summary measures were very close in both contexts. Tables 7 and 8 illustrate the correlations among the three summary measures.

Table 7. Correlations among formal summary measures calculated in words

	Subset Measure/Words	Full Measure/Words	CW Measure/Words
Subset Measure/Words	1.00000		
Full Measure/Words	0.92708 <.0001	1.00000	
CW Measure/Words	0.92550 <.0001	0.99794 <.0001	1.00000

Table 8. Correlations among informal summary measures calculated in words

	Subset Measure/Words	Full Measure/Words	CW Measure/Words
Subset Measure/Words	1.00000		
Full Measures/Words	0.87763 <.0001	1.00000	
CW Measure/Words	0.90918 <.0001	0.98456 <.0001	1.00000

Once again, the correlations among all of the summary variables indicated a strong positive relationship. The correlations between the Full Measure and the CW Measure were extremely high in both contexts, indicating a nearly perfect relationship. As with the other set of measures, however, the main point of interest was the behavior of the Subset Measure. Again, the correlations among this measure and the more comprehensive measures were quite high, ranging from 0.88 to 0.93. This shows that regardless of how the measures were calculated (i.e., with total communication units or with total words in the denominator), the Subset Measure stacked up very well against measures containing many times the number of vernacular features.

4.4.3 Comparison of Measures' Effectiveness at Capturing Style Shift

Since the Subset Measure was specifically formulated to depict style shifting behavior between the two contexts, it was desirable to evaluate not only the measures themselves but also their ability to detect contextual difference. To capture this effect, we calculated a proportion for each measure of the formal value to the informal value. This is illustrated in Figure 5 below.

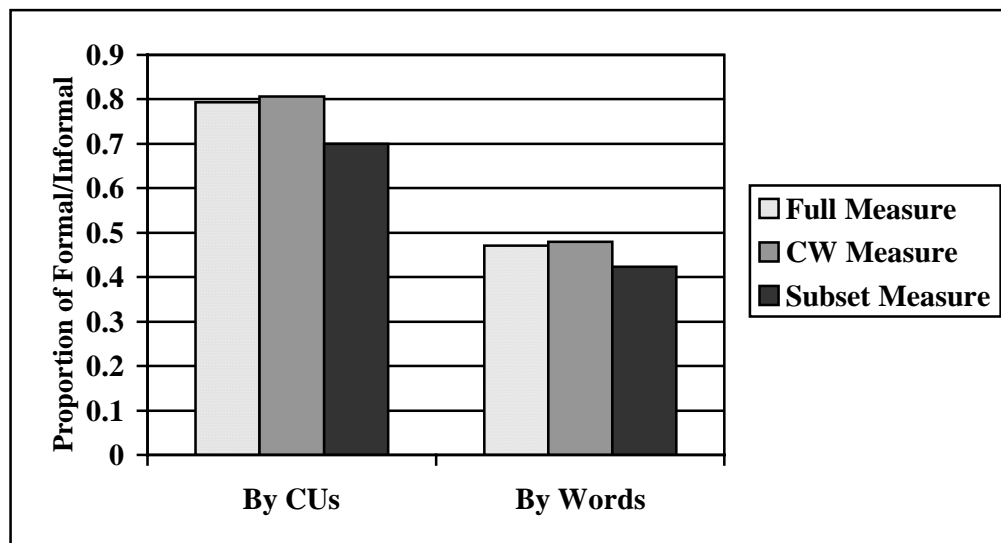


Figure 5. Comparison of all summary measures calculated in words

As evidenced from the figure above, the Full Measure and the CW Measure behaved comparably once again. The Subset Measure also compared favorably to the other measures, especially in the case of those measures that were calculated using total words. These results suggest that the Subset Measure not only correlates well to the more comprehensive measure in general, but it also did a particularly good job of detecting style shift. This suggests that these six features are used often and are central in style shift. As this was an objective in formulating the Subset Measure, this outcome is very much in accord with the project goals.

4.5 Comparison of the Variety of Different Features Used

A final factor of interest looked beyond the differences in overall amount of vernacular use. Instead, it addressed the variety of AAE features used by speakers in a given context. In other words, it was posited that in the informal situations speakers would use more of the individual AAE features, while in the formal situation they would use a few select features in their speech. Figure 6 indicates the values that were computed in this assessment.

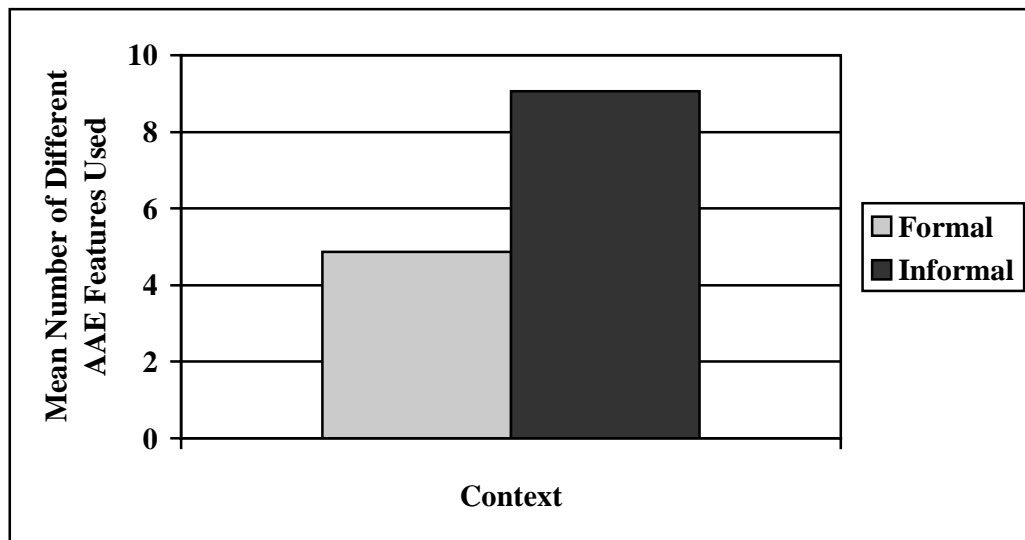


Figure 6. Comparison of the variety of AAE features used by context

Clearly, speakers did use a wider variety of vernacular features in the informal contexts than they did in the formal contexts. In fact, almost twice as many different features were utilized on average; speakers used an average of 4.98 different features in the formal setting versus 9.20 different features in the informal setting. A test of the difference between these values showed that they were statistically significant ($F(1,45)=51.6, p<.001$). Thus, speakers seemed to draw on more of the features in their vernacular inventory in informal situations than they did in formal settings.

4.6 Summary of Findings

This section summarizes the findings that were put forth in this chapter and discusses the implications of these results. The results of this investigation suggest that the use of a subset measure could contribute greatly to the study of style; it would complement current measures while providing additional information about style. It offers a new approach to quantifying style shift while also suggesting new questions regarding stylistic manipulation. The main points of interest in the analyses were the differences that arose between subjects' formal and informal linguistic behavior and the degree of success of the Subset Measure at measuring vernacular use in general and style shift in particular. A discussion of the potential contribution of the Subset Measure brings the section to a close.

As the descriptive statistics for the individual AAE features showed, many features were rarely used by speakers. Additionally, the more infrequent features were utilized significantly more often in the informal situations. This result was reinforced by findings regarding the variety of features used in the two contexts, which stated that speakers' vernacular feature use was more diverse in the informal situations; that is, they used almost twice as many different AAE forms in the informal peer environment. This indicates that the speakers possessed a varied inventory of vernacular features, but chose draw on a restricted range of these forms under formal circumstances.

Another outcome was that this project's findings support the widely discussed phenomenon that the formality of a situation affects the amount of vernacular used by a speaker. All three of the summary measures showed that speakers used significantly more AAE in the informal situations. Additionally, this was the case regardless of how the

measures were calculated, demonstrating the strength of this effect.³² As this linguistic tendency has been detailed greatly throughout the literature, this result was expected. The major contribution of these findings was to lend credence to the use of the Subset Measure as a way to quantify style shift.

One of the primary goals of the analysis was to evaluate the effectiveness of the Subset Measure through comparison with more comprehensive measures of AAE use. The CW Measure is a commonly used method of assessment in the field; thus, direct comparison with this measure is extremely instructive. Because some might not be satisfied with using only those features included in the CW Measure, the Full Measure included additional AAE variables of interest. By judging the results of the Subset Measure against the others, we were able to evaluate how successful a carefully selected subset of features could be in quantifying AAE use in general and with style shift in particular. The very strong positive correlations among the Subset Measure and the other measures supported the use of this smaller collection of features in diagnosing style shift.

As discussed in §4.2, measures with many variables greatly limit the statistical analyses that can be conducted. Therefore, the use of factor analysis and other varieties of structural

³² Additional analyses were conducted in which the number of communication units was held constant across the two contexts for each subject. For each subject, we determined which context had the least number of communication units (This was usually the formal context.). Then, the data from the other context was cut so that the same number of communication units was analyzed for both contexts. The outcome of these analyses indicated the same results as with the uncut data despite the reduction in the amount of data used:

Summary Measure	F-value	p-value
CW Measure (CU)	F(1,49) = 5.41	<0.03
CW Measure (words)	F(1,49) = 82.9	<0.001
Full Measure (CU)	F(1,49) = 5.76	<0.03
Full Measure (words)	F(1,49) = 84.3	<0.001
Subset Measure (CU)	F(1,49)=11.4	<0.002
Subset Measure (words)	F(1,49)=86.2	<0.001

equation modeling with a measure like the CW Measure would require an extremely large number of participants. This can be difficult and often is not possible for a project in need of extensive language samples. Limiting oneself to a handful of relevant features allows for more sophisticated analysis methods with sample sizes as low as a few dozen, making analyses of longitudinal language studies that focus on language use over time more practical. This in turn might allow us to learn more about vernacular use and would contribute greatly to the field of sociolinguistics. Additionally, the very strong correlation between the Subset Measure and the other measures and the fact that most of the AAE features studied occurred very infrequently suggest that little information would be lost in choosing this measure over a more comprehensive alternative. The Subset Measure would therefore become an invaluable tool for language analysis.

The Subset Measure used in this project was created to capture style changes resulting from the formality of a situation, but the use of a subset should not be limited to this end. Subsets could be created to account for other linguistic phenomena. For instance, a different subset of five or six features might be assembled to account for style differences brought about by gender, socioeconomic status, and other factors. Chapter 5 will discuss future possibilities in these areas and will further describe the benefits of using a subset measure.

CHAPTER 5

FUTURE DIRECTIONS

This thesis opens up numerous possibilities for future research in contextual style shift. First, a great deal might be learned from applying the concepts discussed in this thesis to more subjects. Additionally, the notion of using a subset of features to quantify vernacular use would lend itself well to research relating to other factors that affect language use. This chapter will briefly discuss some potential plans to follow up on the work conducted in this thesis.

Since only 50 subjects were used for this project, 90 additional subjects from the longitudinal and peer sets remain to be transcribed and coded. When this is completed, it will provide an opportunity to check the validity of the Subset Measure. By splitting the original sample into two parts we can apply the three measures to a new group of subjects and again assess how well the Subset Measure compares to the others. This is a very important next step because the features in the Subset Measure were selected based on the characteristics of the data set used in this thesis. Applying this measure to a new set of subjects would better inform us as to how well the selected subset extends to AAE use in the general population. This would provide some persuasive evidence of the Subset Measure's soundness to skeptics of this approach.

Another important objective for future research is applying the idea of a feature subset to other areas of language research. The measure put forth in this thesis is tailored to identifying style shifting behavior based on differences in the formality of a given situation; thus, the features that were selected for the subset measure were chosen because of their apparent sensitivity to context. This technique might be implemented to address other questions, like differences based on gender and socioeconomic status. As discussed in §2.1 and §2.2, numerous factors can play a role in language use. The literature on language variation suggests that different features vary due to these factors. Thus, distinct subsets might be created for use with these different factors. This view contrasts with the objectives of many in the area of vernacular research, where the focus is often on trying to find one measure to account for all vernacular use. There is no reason, however, to be limited to one overall diagnostic measure. Indeed, an all-compassing measure may not provide the same quality of information that could be garnered from measures that are carefully designed for specific purposes because of its inherent limitations.

Another consideration for future thought is how well the subset devised in this thesis would characterize AAE in other regions. Given the regional differences in AAE discussed in this thesis, it would be interesting to apply the Subset Measure to data taken from other regions of the United States. The subjects used in this work were all raised in central North Carolina; features that are common to Southern English and AAE may therefore be overrepresented as compared to speakers from other regions. Looking at speakers from other areas would thus further indicate the degree of generalizability of the measure proposed in this thesis.

As discussed earlier, utilizing a few features brings enormous benefits with regard to statistical analyses by allowing for more complex methods to be applied. Additionally, it makes moot many of the questions about which features should be included in an all-encompassing measure of AAE. By requiring only a handful of features, there is less need to argue over how AAE should be characterized as a dialect. Instead of dealing with this problematic objective, we can focus only on the features that are the most responsive to context, gender, and other factors.

Current work to this end involves applying structural equation modeling techniques to constructing possible feature subsets for purposes aside from situational context. Using LISREL software to analyze the data, we will first explore possible subsets to capture gender differences among subjects.³³ A subset will be selected and analyses will be run comparing the difference in the influence of each of these features on males versus females. This will be repeated until a satisfactory set of variables is selected. Again, the next step will be to check the strength of this subset by comparing it with the larger measures and then applying it to the rest of the sample after transcription and coding is completed. Such work will provide a wealth of information on language use and could contribute greatly to the study of vernacular use.

A final item for future consideration is determining what sets apart the six particular features in the Subset Measure. This is especially interesting given the fact that some of these features (e.g., multiple negation) are not exclusive to AAE. Two possible approaches to this question are whether these features share some structural function or if they have a common quality that drives their similar style shifting behavior.

³³ Thanks to Abigail Panter in the Quantitative Psychology department at UNC Chapel Hill for her assistance with these analyses.

Looking at the structural nature of these features does not provide an adequate answer to what causes the subset features to behave in the same way. Nasal fronting is a phonological feature, while the others are morphosyntactic. Copula absence, modal auxiliary absence, and third person singular *-s* absence are tense and aspect features, but the other three are not. *Ain't* for *is+not* and multiple negation are the only negation-related features. Thus, there is no single structural characteristic shared by these features that would account for their parallel behavior and differentiate them from the other features that were studied.

Another possible explanation for the functioning of these subset features is that they serve as some kind of social symbol. For example, perhaps speakers use these features as a way to indicate racial identity or as a marker of age. They may choose to highlight some of these features because many of them are features that speakers pay attention to and therefore are able to consciously manipulate. It would be interesting to look at the other potential subsets discussed above (e.g., gender) to see if social factors play a role with those selected features as well.

This thesis opens up many avenues for further research. Not only does the concept of a subset feature allow for greatly expanded opportunities for statistical analysis, but it also looks to provide more information about what exactly varies during style shifting. The ability to isolate the features that are crucial to style shift could tell us a great deal about speakers' linguistic behavior in different contexts. Thus, the ideas proposed in this paper promise to contribute considerably to the examination of style in language.

APPENDIX I

AAE FEATURE CODE KEY

Morphosyntactic Features:

1. a. Zero Copula (**0CO**) = *is, am, are*, and other forms of the verb *to be* are variably included or excluded in either copula or auxiliary form
(e.g., *the bridge ___ out; they ___ ugly; because he ___ cold*)

b. Zero Modal Auxiliary (**0MA**) = *will, can, do, and have* are variably included or excluded as modal auxiliaries
(e.g., *how ___ you do this; when ___ my dad get here; maybe we ___ take this off; I ___ never seen it; they ___ been doing that*)
2. Subject-Verb Agreement = A subject and verb that differ in either number or person
 - a. Addition of inflectional *-s* on non-3rd person singular subject (**P3S**)
(e.g., *we likes them*)
 - b. Absence of 3rd person singular *-s* (**M3S**)
(e.g., *she like_ her*)
 - c. Leveling = *is/was* generalization (**LEV**)
(e.g., *we **was** there; the dogs **is** in the house*)
 - d. Difference in number between subject and modal auxiliaries *do* and *have* (**TSA**)
(e.g., *he **don't** wanna move; his wheel **have** busted open*)
3. Finta/(S)poseta/Bouta (**FBS**) = Abbreviated forms of *fixing to, supposed to, and about to*
(e.g., *she **finta** backward flip; when does it **sposeta** go; they don't **poesta** go; this one **bouta** go in the school*)
4. Ain't = Use of *ain't* as a negative auxiliary
 - a. *Ain't* used as a negative auxiliary in *are+not, is+not, and have+not* (**AI1**)
(e.g., *why she **ain't** comin; the cars **ain't** gonna move*)
 - b. *Ain't* used as a negative auxiliary in *did+not* (**AI2**)
(e.g., *he **ain't** go*)

5. Undifferentiated Pronoun Case = Nominative, objective, and demonstrative cases of pronouns occur interchangeably
 - a. Nominative and objective pronouns are used interchangeably (**UNO**)
(e.g., **him** did and **him**; and then **them** fall; that car ran **he** over; **me** don't know; and **him** lose **him** papers)
 - b. Use of object form for demonstrative (**UOD**)
(e.g., **them** dogs; that boy dropped all **them** paper)
 - c. Use of personal/benefactive dative construction (**BDA**)
(e.g., you love **you** some boys; I got **me** a drink)
6. Multiple Negation (**NEG**) = Use of two or more negative markers in a clause for a single negative proposition (i.e., do NOT code *he didn't do nothing, he did was always busy*)
(e.g., I **don't** got **no** brothers; they **didn't** do **nothing**)
7. Zero Possessive = Possession is coded by word order alone
 - a. The possessive marker –'s is deleted (**OPS**)
(e.g., he hit the **man** car; **somebody** bike broke)
 - b. The nominative or objective case of the pronoun is used rather than the possessive (**OPP**)
(e.g., **they** house; kids just goin' to walk to **they** school)
8. Zero Past Tense (**OPT**) = The past tense marker –ed is not always used to denote regular past constructions, or the present tense form is used in place of the irregular past tense
(e.g., and this car **crash**__; they **mess**_ up before; and then them **fall**; I **come** there yesterday)
9. Zero –ing (**OIN**) = The present progressive morpheme –ing is deleted
(e.g., the lady is **sleep**__; and here's a lady that's **wear**_ pink)
10. Invariant/Habitual *be* (**IBE**) = Unconjugated *be* with a variety of subjects coding habitual action or to state a rule
(e.g., this one **be** flying up in the sky; they **be** messing up)
11. Zero *to* (**OTO**) = The infinitive marker *to* is deleted
(e.g., now my turn __ shoot you; he was trying __ run after you)
12. Zero Plural (**OPL**) = Variable inclusion of plural marker –s
(e.g., wait ten **minute**__; two **dog**_; some kids got their **lunchbox**_ and books and stuff)

13. Double Copula/Auxiliary/Modal

- a. Double Copula or Auxiliary (**DCA**) = Two copula or auxiliary forms of the verb *to be* are used where a single form is needed
(e.g., *I'm is the last one ridin' on; they're is playing in the snow*)
- b. Double Modal (**DMO**) = Two modal forms (i.e., verbs that express certain “moods” such as certainty, possibility, obligation, or permission) for a single verb form
(e.g., *I might could go there; you oughta mighta take that*)

14. Regularized Reflexive (**RRF**) = Reflexive pronouns *himself* and *themselves* are expressed using *hissself* and *their/theyselves* or *their/theyself*
(e.g., *he stands by hissself; everybody stop and hurt theyself; they skating there all by theirsself*)

15. Indefinite Article (**INA**) = Use of *a* regardless of whether the first sound in subsequent noun is a vowel or a consonant
(e.g., *a boy is giving his friend a airplane*)

16. Appositive Pronoun (**APP**) = A pronoun that is used in addition to a noun or a second pronoun to signify the same referent
(e.g., *the crossing guard she whistling to him; this one he's down on the ground*)

17. Past Form for Participles (**RPF**) = Substitution of the regular past tense form for the past participle; this should be coded when the speaker is referring to an event that has completed before another past action
(e.g., *I had went down there* for SAE “I had gone down there”; *he may have took the wagon* for SAE “he may have taken the wagon”)

18. Preterite *had* (**HAD**) = *had* + verb in past tense form where Standard American English would use the simple past form
(e.g., *My mama, she was about to go to Bible study, and on the way back there her car had stopped. And then she had called the house because somebody let her use the phone. And then she had called the house, and then I said, “Hello. Who's this?”*)
for SAE “My mama, she was about to go to Bible study, and on the way back there her car stopped. And then she called the house and because somebody let her use the phone. And then she called the house, and then I said ‘Hello. Who's this?’”)
**Note that in the above example, the car stopping does not occur BEFORE going to Bible study. (In Standard American English the use of “had stopped” would require the stopping to have occurred before going to Bible study.)
**When coding this feature, be sure to record at least the immediately preceding and following sentences in the “Notes” column.

19. Regularization of Irregular Past Tense Form (**IPT**) = Substitution of regularized past tense form for an irregular verb
(e.g., *everybody knowed he was late; they throwed out the old food*)

20. Zero Relative Pronoun (**ORP**) = Absence of the relative pronoun when it refers to the subject of the sentence
(e.g., *that's the man ___ come here; that's the dog ___ bit me*)
21. Uninverted Direct Questions (**UDQ**) = Formation of a direct question without I-to-C inversion
(e.g., *Why **I can't** go?*)
22. Inverted Question without *if/whether* (**INQ**) = Inversion of elements in a question without a complementizer *whether/if*
(e.g., *she asked could she go?*)
23. Existential *it* or *they* (**EXI**) = The use of *it* or *they* to denote the existence of something (equivalent to Standard English *there is*)
(e.g., ***it's** a doughnut in the cabinet; **it ain't** no spoon; **they's** a good show on TV*)
24. Regularized *mines* (**MIN**) = Regularization of the possessive pronoun *mine* to *mines*, through analogy with *yours, his, hers*, etc.
(e.g., ***mines** is nice; that book is **mines***)
25. Remote past “been” (**RPB**) = *been* is used to mark action in the remote past; in such cases the word *been* is always stressed
(e.g., *he **been** had that job; I **been** bought her clothes*)
26. Completive *done* (**DON**) = *done* and *did* are used to indicate a completed action and are in a preverbal position (i.e., they are not the main verb)
(e.g., *he **done** fall down; they **did** fell*)
27. Double Marking = Multiple agreement markers are used for forms
- Multiple agreement markers for irregular plural nouns (i.e., addition of plural *-s* on irregular form) (**DMN**)
(e.g., *then the **peoples** in the car is smashed*)
 - Multiple agreement markers for pronouns (**DMP**)
(e.g., *what's **thems** doing?*)
 - Multiple agreement markers for irregular verbs (i.e., addition of past tense *-ed* or plural marker for number on irregular form) (**DMV**)
(e.g., *a boy **was hurted** on the floor; they **fells***)
28. Zero Preposition (**OPR**) = Prepositions are variably deleted
(e.g., *what happened ___ the tree?; I play ___ home; he got runned over ___ a car; the boy fell out the car; the boy he got ___ an accident*)

29. Zero Article (**0AR**) = Articles are variable included and excluded (Note: Do not code as 0AR if the subject is simply reading a list. This should be coded as CAR, as described under “Miscellaneous Codes”)
(e.g., *I’ll set them up in __ **minute**; police officers and __ **ambulance** was there; can you push it into __ **bottom** for me*)

Phonological Features:

1. Nasal Fronting (**NAS**) = Substitution of /n/ for /ŋ/
(e.g., *and this boy getting ready to fall*: “getting” = [getʔɪn])
2. Prevocalic Cluster Reduction (**PCR**) = Word-final consonant cluster ending in a stop is reduced, even when followed by a word beginning with a vowel (Note: Do not code *and* & *just* for this feature)
(e.g., *bes’ apple*)
3. Labialization (**LAB**) = Substitution of /f/ for /θ/ and /v/ for /ð/
(e.g., *everybody had they mouth open*: “mouth” = [maʊf];
let the other cars: “other” = [ʌʋəɪ])

Potential Features Codes:

1. Copula Use (**XCO**) = Use of the copula where it could be deleted under the rules of AAE grammar.
**This should be coded wherever the copula could be contracted in SAE (e.g., *What his name* should be coded because it could be *What’s his name* in SAE; *I don’t know where he is* should not be coded because **I don’t know where he’s* is ungrammatical in SAE).
**Cases where only the phonological environment precludes contraction in SAE should be coded (e.g., *His nice* should be coded, even though **His’s nice* does not exist in SAE for phonological reasons)
2. Modal Aux Use (**XMA**) = Use of modal auxiliary where it could be deleted under rules of AAE grammar.
(e.g., *What **do** you do after school?*)
**This should be coded UNLESS it deleting it would change the meaning of the statement or make the tense unclear
(e.g., Do not code *What did you do?* because deleting *did* would make it impossible to tell that the intent of the statement was past tense)
3. Lack of Nasal Fronting (**XNA**) = Use of /ŋ/
(e.g., *going* = [gowɪŋ])

Miscellaneous Codes:

1. No Feature (**000**) = No AAE feature within a particular C-unit
2. Fully Unintelligible (**UNI**) = More than 20% of a particular C-unit is unintelligible
3. Partially Unintelligible (**PUN**) = Part of a given C-unit is unintelligible, but it is 20% or less of the entire C-unit
4. Ellipsis (**ELL**) = The speaker's utterance is not a complete C-unit, but it is in response to a question
(e.g., *yes, uh-uh, pizza, after school*—in response to a question)
5. Verbal Disruption (**DIS**) = The speaker abandons an utterance, even if it contains a complete clause. These instances should be placed inside angled brackets < >
(e.g., *<he's marooned on an island with all shark...>*)
6. Filler (**FIL**) = Words like “OK”, “yeah”, “uh-huh”, etc. that are not in answer to a direct question and are used as a space filler
7. Casual Article (**CAR**) = The speaker omits an article only because s/he is reading a list aloud; the omission is not a vernacular feature.

Code Notes:

- Codes UNI, DIS, and FIL are not counted as CUs and should have no other codes on the line with them.
- OOO, PUN, and ELL may occur only once per line, but can occur with other codes. Utterances that contain them are coded as CUs.
- All of the other codes can appear more than once per line and with other codes. Utterances that contain them are coded as CUs.

APPENDIX II

CODING PROTOCOL

African American English and its Relation to Literacy Skills in Early Adolescence **Coding Protocol – Grade 6 Peer Interaction**

I. Data

Data from audio CD's of the interaction will be coded. If any aspects of the recording are in question (e.g., difficulty identifying a speaker or parts of the interaction are unintelligible), this information may be verified using the video/DVD recordings of the interaction. This verification will be done after all audio CD's are coded.

II. Equipment

The audio recordings will be heard through the Express Scribe program on a computer or laptop. This program can be downloaded for free from the manufacturer's website, <http://www.nch.com.au/scribe/>. To download the software, click on the link that says, "Click here to install Express Scribe for Windows." That will download the installation software and will put an installation icon wherever you choose on your hard drive. Double-click that icon, and follow the prompts to finish installation.

To play a CD in Express Scribe, one must:

- a. Put CD in disk drive
- b. Open the "File" menu, and select "Load Audio CD track(s)."
- c. A box will open. Select the track you want to hear, and click "Load."
- d. The track you wish to play will appear in the Express Scribe window. You may play, pause, fast forward, rewind, and increase or decrease the speed of the recording in this window.

The DVD/video recordings can be viewed using any DVD player or 8mm VCR.

When coding both audio and video recordings, the coder should use good quality headphones. If the coder does not own quality headphones, they are available at FPG or NC State labs.

III. Method

a. What to Code

The coder will code four total contexts: two formal and two informal. The two formal contexts are the “Speech to Parents of New Children” (F1) and “Kids Only Vacation” (F2); the two informal contexts are “Snack” (I1) and “Issue Discussion” (I2). The coder will code all four contexts for each speaker initially, in order to assess reliability. After initial reliability is determined, the coder will code “Speech to Parents of New Children”, “Kids Only Vacation”, and “Issue Discussion.” If necessary, the coder may then code “Snack”.

b. How Much to Code

- i. For the two formal contexts, coding will commence when each subject begins his/her speech and will end when the subject finishes the speech. These contexts also include the “follow-up” speeches after the initial presentations, but the period between the presentations need not be transcribed or coded. Any conversation between subjects or between the subject and the experimenter will not be coded for AAE features, but may be noted in transcription. Any speech from the other subject (the subject not giving the speech) will not be coded, but should be noted in the transcription.
- ii. For the two informal contexts, coding will commence when the experimenter announces that she is leaving the room. Coding will end when the experimenter returns to the room and announces that the task is over. (Any speech by or interaction with the experimenter may be included in the transcript, but should NOT be coded.) The “Issue Discussion” segment should be transcribed first, followed by “Snack” if necessary.
- iii. The coder should transcribe at least 50 C-units per speaker for each context if possible. This would result in a minimum of 100 C-units per subject.

c. Transcribing Speech

Using Microsoft Word, the coder will orthographically transcribe the speech from the tasks indicated above in III a & b. Each line of the transcript will contain one “Communication Unit” as defined in Craig & Washington, 2006.

i. Defining a “Communication Unit” (C-unit)

A C-unit is defined as “an independent clause plus its modifiers.” The main criterion for determining segmentation in multi-clausal utterances was whether the second clause contained a subject. Thus, in the examples below (1) was scored as two C-units, while (2), (3), (4) and (5) were scored as a single C-unit.

- (1) *she made um like a circle / and then **she** made something*
- (2) *um the peoples fall down and go in the snow*
- (3) *I'll play with anything here but not no girl stuff*
- (4) *I'm gonna change her clothes 'cause she been baseballing*
- (5) *and somebody helping somebody that's bouta get in a in a ice puddle*

In (1), there are two independent clauses, each with a subject. In (2), (3), (4), and (5), each contains only one independent clause as well as a modifier, which is underlined: (2) and (3) contain a coordinate clause; (4) contains a subordinate clause; (5) contains a relative clause.

If a C-unit is repeated verbatim, the second repetition should be counted as a separate C-unit. The exception to this is cases where the C-unit consists of only one word. In this instance count all consecutive repetitions as one C-unit.

(e.g, *Why why why why?* = 1 C-Unit)

There are certain cases in which an utterance that is NOT a clause may be considered as to be a C-Unit. They are:

1. An answer to a question, provided that the answer only lacks the repetition of the question elements
(e.g., *Went home* in answer to *What did you do then?*;
Down their hole in answer to *Where did they go?*)
2. Each elliptical “yes” or “no” answer is one C-unit
(e.g., *Yes* in answer to *Have you ever been sick?*;
If a phrase follow “yes”/“no” to expand on it, considers them to be a single C-unit e.g., *Yes* (pause)....*and my momma is going too*)

3. Each utterance that is not a main clause but is preceded and followed by terminal silence is one C-unit
(e.g., *Couldn't understand what he was saying* where the previous C-unit was *He wanted something* followed by a pause; *A whole lot of hyenas* where the previous C-unit was *He has hyenas who are his friends* followed by a pause)

ii. What NOT to Count as a C-unit

In some cases, part of a C-unit may be unintelligible. If the utterance maintains a Subject-Verb structure it is to be scored as a C-unit. Each inaudible or unintelligible word should be marked as “XXX” in the transcript. If it does not maintain a Subject-Verb structure and is not one of the exceptions listed above, or if less than 80% of the utterance is intelligible, it should NOT be scored as a C-unit, and therefore should not be coded. Additionally, words like “alright”, “OK”, “yeah” etc. should not be counted as C-units if they are used by the speaker as fillers (and are not answers to questions), and rote phrases and ejectives should not be counted as well (e.g., *dang*, *oh man*).

iii. Transcribing

The coder should code each task separately and save each to its own Word document. The title of the Word document should be the Subject #(s), grade, and context (e.g., 1010 G6 F1 or 1010-2015 G6 I2) and the document should be in a folder that denotes the numbers of the subject pair (1010-2015). This folder will contain all of the data files for the subject pair. **It is very important that all of the Word and Excel files in this folder be named using the same convention.**

As described above, each line will contain one C-unit. If there are multiple speakers, note the speaker (by citing ID number of EXP for “Experimenter”) at the beginning of each line. In the transcription process, the coder should listen to each task 4-5 times before moving on to the next task:

1. On the first run, the coder should listen to the audio and transcribe as well as possible, rewinding as necessary.
2. Next, the coder should listen to the audio for the task in its entirety again to check the validity of the morphosyntactic features in the transcript.

3. The coder should listen to the audio 2-3 more times to check for phonological features (focusing on 1-2 features on each run).

During the transcription process, it may be helpful to mark the African American Features in the transcript itself (see “AAE Feature Key” for feature list). Morphosyntactic features may be bolded and “missing” sounds may be placed in parenthesis and bolded (e.g., singin(**g**)). This may later be useful when entering the transcript into the Excel file (to be discussed later).

Several conventions will be used when transcribing. When subjects speak at the same time, this should be indicated with square brackets []. Verbal disruptions, or cases where the speaker does not complete an utterance, are not C-units and should be designated by placing the utterance in angled brackets <>. When a subject starts an utterance, pauses in mid-sentence and then repeats and subsequently finishes the utterance, it should be transcribed as follows:

*<I didn't know>
I didn't know he was gonna be there*

A repetition in the middle of an utterance may simply be considered part of the C-unit (e.g., *She said that I...that I should work harder*). Minimal punctuation should be used in the transcript. The only punctuation used should be question marks under the appropriate circumstances, commas in a list, and an ellipsis marker (...) to indicate a long pause.

iv. Potential Problems in Transcribing

Several potential problems may arise in transcribing the audio files:

1. First, it may be difficult to identify which subject is speaking, especially in the informal context. If this occurs, the coder should watch the DVD/video of the session to determine the speaker
2. Also, it likely will not be evident which ID number should accompany which speaker. To determine this, the coder should try to determine the subjects' first name from the audio. This information can then be compared with a list of subject names and ID numbers to determine who is who. If this is still not possible, the coder can check with Dr. Susan Zeisel at FPG, who is familiar with all of the study subjects and should be able to help identify them.

3. Finally, it may be difficult to hear or understand the speakers in some cases. As discussed above, all of the data is also available on DVD or 8mm video. After transcribing and coding all of the tapes, the coder should then look for inaudible portions of the transcripts and use the videos to try to fill in those gaps in the data.

v. Reliability

Initial reliability checks will be done by having two coders code all four contexts for 5 subjects. Once the coders are deemed reliable, they should regularly check reliability by coding the same tape every 5 subjects at first and later increasing to every 8-10 subjects. Reliability must be assessed for the coding, as well as the transcript itself. Reliability checks will be done in SAS by statisticians at FPG.

d. Coding Transcribed Data

i. Creating Excel File

The coder will enter the data from each transcript into an Excel file (see “AAE Feature Template” file for example). There should be an Excel file **for each subject for each context** (i.e., F1, F2, I1, I2). The title of the Excel spreadsheet should be the grade, context, and subject number with underscores between them and no spaces (e.g., G6_F2_1010). These files will be saved in a folder whose title is title ID numbers of the subject pair (e.g., 1010-2015). **It is vital that all files be named using this convention.**

ii. Entering Data in Excel File

The coder will enter the following data into each column:

CU: The number of the Communication unit. Each consecutive C-unit will be assigned a number in chronological order.

Min/Sec: The time that coding began and ended. The coder should note any gaps in the audio (e.g., long period where the recording was inaudible) in these columns as well.

FC 1-10: Enter the 3-letter abbreviation of the feature of African American English found in the specified C-unit (see “AAE Feature Key” for feature list and abbreviation). For C-units with more than one feature, the first feature in the C-unit should be noted in the “Feature Code 1” column. Each consecutive feature should be entered in the subsequent “Feature Key” columns.

Speaker: Enter the ID # of the speaker of each C-unit. If the experimenter is the speaker enter “EXP”.

NumWords: Enter the number of words in the C-unit. This should be done after all coding is completed. (Note: Both contractions and proper names should be counted as two words. *Ain’t* should be counted as one word. Fillers like *uh* and *um* and partial words could be counted as half of a word. Non-CU’s should not be included in word counts)

Communication Unit: Enter the entire C-unit in the cell.

Notes: Enter any information that may be of interest. For example, in some cases noting the preceding and following C-units may be useful in providing information about the context of the C-unit or feature in question.

The following information need only be entered in the top row of the spreadsheet:

FileName: Enter the name that the Excel file is saved under. This includes the grade the subject should be in if he had completed one grade per year and had not skipped a grade or been held back (TG), situational context, and ID number (e.g., G6_I1_2000)

Examiner: Enter the initials of the experimenter.

Coder: Enter the coder’s (i.e., your) initials.

Test Date: Enter the date that the testing took place.

Code Date: Enter the date that the information was coded.

AG: Enter the grade in school that the subject(s) is actually in (i.e., A6).

SubInit: Enter the initials of the subject(s) being coded.

iii. What to Enter into the Excel File

Only relevant C-units from the transcript should be entered into the Excel file. Thus, any utterances directed at the experimenter should not be included in the Excel file. Additionally, in the formal contexts do not include any communication between the two subjects.

Any relevant C-unit or verbal disruption should be included in the Excel file (though verbal disruptions should not be coded or counted as C-units)

e. Data Analysis

FPG statisticians will analyze the data using SAS. The speakers' vernacular usage will be determined by the proportion of AAE feature instances per total number of C-units and by the proportion of AAE features per total number of words. Reliability will be assessed regularly, and any questions will be addressed to Eloise Neebe.

APPENDIX III

CRAIG & WASHINGTON (2006) DIALECT DENSITY MEASURE FEATURES

Phonological Measures

1. Postvocalic consonant reduction
2. “g” dropping (i.e., Nasal fronting)
3. Substitutions for /θ/ and /ð/ (i.e., Labialization)
4. Devoicing final consonants
5. Consonant cluster reduction
6. Consonant cluster movement
7. Syllable deletion
8. Syllable addition
9. Monophthongization of diphthongs

Morphosyntactic Measures

1. *Ain’t* used as a negative auxiliary in *have+not*, *do+not*, *are+not*, and *is+not* constructions
2. Appositive pronoun
3. Completive done
4. Multiple agreement markers for regular nouns and verbs and hypercorrection of irregulars
5. Double copula/auxiliary/modal
6. Existential *it*
7. *Finta/sposeta/bouta*
8. Preterite *had*

9. Indefinite article
10. Invariant *be*
11. Multiple negation
12. Regularized reflexive pronoun
13. Remote past *been*
14. Subject–verb agreement
15. Undifferentiated pronoun case
16. Zero article
17. Zero copula/auxiliary
18. Zero *–ing*
19. Zero modal auxiliary
20. Zero past tense (i.e., *-ed* markers are variably included on regular past verbs and the present forms of irregulars are used)
21. Zero plural
22. Zero possessive (i.e., possessive *-s* is deleted or a possessive pronouns is changed)
23. Zero preposition
24. Zero infinitival *to*

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