Influences of Social and Style Variables on Adult Usage of African American English Features

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Abstract

Purpose—In this study, the authors examined the influences of selected social (gender, employment status, educational achievement level) and style variables (race of examiner, interview topic) on the production of African American English (AAE) by adults.

Method—Participants were 50 African American men and women, ages 20–30 years. The authors used Rapid and Anonymous Survey (RAS) methods to collect responses to questions on informal situational and formal message-oriented topics in a short interview with an unacquainted interlocutor.

Results—Results revealed strong systematic effects for academic achievement, but not gender or employment status. Most features were used less frequently by participants with higher educational levels, but sharp declines in the usage of 5 specific features distinguished the participants differing in educational achievement. Strong systematic style effects were found for the 2 types of questions, but not race of addressee. The features that were most commonly used across participants—copula absence, variable subject–verb agreement, and appositive pronouns— were also the features that showed the greatest style shifting.

Conclusions—The findings lay a foundation with mature speakers for rate-based and feature inventory methods recently shown to be informative for the study of child AAE and demonstrate the benefits of the RAS.

Keywords

African American English; sociolinguistics; dialects

Systematic variations in the production of African American English (AAE) have been a long-standing and important focus of inquiry within the field of sociolinguistics and more recently in related disciplines. AAE is a rich, rule-governed, and highly complex variety of English (Baugh, 1983; Green, 2002; Labov, 1972; Rickford, 1999; Wolfram & Fasold, 1974) differing in major ways from other English dialects. Most frequently, AAE features are characterized contrastively in terms of the way comparable meanings would be rendered in Standard American English (SAE). Alternations between the two systems are best described as changes within a dialect, and not as switching between two different dialects (Wolfram, 2004). Accordingly, in this article we adopt the term *AAE feature* or *form* to refer to those that are most associated with AAE and are produced differently than they would be produced in SAE; *SAE forms* refer to those productions of the dialect that are

most associated with SAE. The purpose of this study was to contribute to the understanding of important influences on a speaker's alternations between contrastive AAE and SAE forms.

Sources of Systematic Variation

Some features are highly associated with AAE, such as *invariant be* (IBE, "she be knowin" how to drive). This does not mean that all speakers of AAE should be expected to use this or any other particular feature. Wolfram (2004) observed that what is distinctive about cultural-linguistic variations is not that the members of the group use a particular form but that the members of the contrastive group never do. Variables that influence when AAE forms are likely to be produced versus their SAE counterparts can be grouped broadly into three major types, as follows.

Linguistic variables are those influences that can increase the likelihood of AAE features occurring and that are exerted by phonological and morphosyntactic sentence environments. For example, the tendency to use the AAE form of zero copula (COP) has been observed to increase, even for very young speakers of AAE, when following a second- or third-person personal pronoun ("he _ the best right now until somebody dethrone him") in contrast to a noun-phrase subject (Baugh, 1980; Green, 2002; Wolfram, 1969; Wyatt, 1991). For especially salient phonological features of AAE, linguistic variables are highly influential in determining when the AAE versus SAE form will occur, for example, for the production of monophthongization of /aI / (Beck-Thomas, 2011; Fridland, 2003)

Social variables are another major influence on the increased likelihood for production of AAE forms and include differences between individuals associated with demographic variables. Socioeconomic status (SES) is one of these major influences. The discourse of individuals from working-class or lower income homes is more likely to include greater frequencies of AAE features than the discourse of peers from middle socioeconomic status (MSES) homes (Horton-Ikard & Miller, 2004; Linnes, 1998; Washington & Craig, 1998; Wolfram, 1969). It is noteworthy, however, that these lower frequencies do not seem to be signaling the permanent disappearance of AAE feature use, as may be the case for language variations associated with other MSES minority language users in the United States; alternatively, MSES African Americans may use AAE forms to assert and affirm their cultural identity (Kendall & Wolfram, 2009; Linnes, 1998). Community and regional differences (Charity, 2007; Wolfram & Schilling-Estes, 2005), gender (Milroy & Milroy, 1999; Washington & Craig, 1998), and the age-related influences of grade and intergenerational spans (Craig & Washington, 2004; Cukor-Avila, 2002) are important sociodemographic impacts on the production of contrastive AAE versus SAE forms as well.

Stylistic variables are a third major influence on the production of AAE features. Stylistic variables include within-individual changes related to differences in context, and these changes are conceptualized as an individual's ability to *style shift*. Preston (1991) observed that although social variables are permanent long-term factors, stylistic variables are more dynamic and influenced by the immediate environment. Specific features are more likely to be part of style shifting than others. Features that are uncommon across the population are involved less often in style shifting (Bell, 1984; Rickford & McNair-Knox, 1994), and grammatical features show more marked changes than phonological ones (Wolfram, 1969, 2004). Bell hypothesized that the features that distinguish speakers of different dialect groups tend to be the ones they will use when in conversation with others who share that dialect and the ones avoided when speaking with individuals who use another dialect.

Race of addressee can influence stylistic variations, with AAE features increasing when the addressee is African American, especially if the addressee is speaking AAE (Fasold, 1972;

Rickford & McNair-Knox, 1994; Terrell, Terrell, & Golin, 1977). AAE features may be produced as implicit expressions of power and solidarity or to convey ethnic group inclusion (Flowers, 2000; Kendall & Wolfram, 2009). Adults are influenced by the subject matter or conversational topic in their choices between contrastive AAE and SAE forms. "Intimate," "casual," and "ethnic" topics are more likely to elicit AAE features than more "formal," "message-oriented," or "mainstream" topics (Baugh, 1983; Bell, 1984; Labov, 1972; Linnes, 1998; Milroy & Milroy, 1999; Rickford & McNair-Knox, 1994). Differences related to discourse reflect systematic variations at the level of individual features, such that some features are much more likely to be used in one discourse genre compared with others. Preterite had +Ved is a notable example, occurring primarily in narrative topics. Rickford and Rafal (1996) observed that 11- to 13-year-old residents of East Palo Alto, California, used preterite had only in narratives, and most of these usages marked a complicating action within a longer narrative, either as an initial complication ("I was on my way to school and I had slipped and fell," p. 229) or a reorienting device locating the speakers so that new complicating actions can be described ("We had went home, and then Gerald mother and him come up, and Gerald was crying," p. 237). Ross, Oetting, and Stapleton (2004) found that approximately half the 4- to 6-year-old AAE speakers in their study produced had + Ved as a preterite, frequently expressing the complicating action clauses of narratives. In contrast, they observed that the preterite had + Ved feature was much less likely to occur in other narrative structures such as the narrative abstract or coda, and the like. Overall, the had + Ved form occurred primarily in the children's narratives rather than in other discourse genres.

Early theorizing about the sources of stylistic variation emphasized that speakers' systematic differences in the use of linguistic forms resulted from their attempts to make social meanings and thereby were a representation of the intersection between the individual and the community (Labov, 1966). Consequently, an individual's style was considered to be directly related to his or her socioeconomic place. Subsequent examinations of stylistic variations necessitated the development of specialized field methods, particularly ways to manipulate an individual's style. The sociolinguistic interview evolved as the major data collection heuristic, permitting language sampling ranging from high-prestige speech styles, by nature quite formal and careful, to low-prestige or stigmatized speech styles that were vernacular, casual, and informal in nature. Concerned about the "observer's paradox," the likelihood of a respondent choosing not to use vernacular within the context of a socioliguistic interview in which the data collector was a stranger, Labov (1975) demonstrated how conversational topics might be manipulated to elicit a full range of formal-informal discourse styles within short interviews. Considerable subsequent research in the field of sociolinguistics has debated the centrality to style of speaker attention to speech forms (Labov, 1975), ways in which speakers self-identify, including the speaker's perception of self as an individual and as a group member (Coupland, 1980), audience types (Bell, 1984), and the broader communicative context, including the amount of shared reference between the interviewer and respondent (Finegan & Biber, 1994).

To sociolinguists, sources of systematic variation are of theoretical interest in their own right. To social scientists and scholars in more applied fields, sources of systematic variation increasingly are of considerable practical importance as well. In particular, both Black and White listeners rate speakers who use AAE features lower in terms of social status, SES, intelligence, and personal attractiveness (Bleile, McGowan, & Bernthal, 1997; Koch, Gross, & Kolts, 2001; Rodriguez, Cargile, & Rich, 2004). Linguistic discrimination may play a role in both the housing (Massey & Lundy, 2001; Purnell, Idsardi, & Baugh, 1999) and labor markets (Grogger, 2011). Even after accounting for differences in skill, racial wage gaps persist, which disadvantage African Americans (Carneiro, Heckman, & Masterov, 2005). Grogger has shown that these gaps relate to language behaviors. African American workers

with speech perceived as racially distinctive by unacquainted listeners suffer a substantial wage penalty in relation to similarly skilled White workers, whereas African American workers with less distinctive speech earn roughly the same as comparable Whites. Grogger calculated that African American adults who "sound Black" suffer from wage inequities, earning approximately 10% less than their peers.

Educationally, teachers correct more miscues that are dialectal in nature compared with other types in reading tasks when students are African American (Cunningham, 1976–1977; Markham, 1984); teachers expect lower intelligence, academic achievement, and reading skill from them as well (Cecil, 1988). Students who produce lower rates of AAE forms score better on a variety of language and literacy tasks than their peers who use higher rates (Charity, Scarborough, & Griffin, 2004; Connor & Craig, 2006; Craig, Zhang, Hensel, & Quinn, 2009). Many rate-based studies are consistent in finding a negative association between vernacular levels and achievement outcomes: The higher the rate of AAE forms, the lower the test scores. It is not simply using fewer AAE features overall that is the core difference, but the ability to shift levels of feature usage when the task demands this adaptation (Connor & Craig, 2006; Craig et al., 2009). Furthermore, unlike their peers who do not style shift, the students who do style shift between oracy and literacy tasks have test scores at the standard score mean on achievement tests. For these linguistically adaptable students, there is no measurable evidence of the persistent and nationally widespread Black–White Test Score Gap (Jencks & Phillips, 1998) for reading.

Studies probing relationships between style shifting and literacy outcomes have examined AAE feature production not in terms of single or small sets of features as did the earliest studies (Goodman & Buck, 1973; Seymour & Ralabate, 1985; Steffensen, Reynolds, McClure, & Guthrie 1982), but more holistically as vernacular rates across all or large sets of features. These rates calculate the total frequencies of AAE forms (tokens) produced in a sample of speech, regardless of how many different types of features this represents, and report the token frequencies relative to sample size. These rates were first calculated as tokens of AAE forms divided by the number of words in the sample (Craig, Washington, & Thompson-Porter, 1998) and are known now as *dialect density measures* (DDMs). Oetting and McDonald (2002) distinguished type from token-based measures of DDM and showed that the different methods of calculating DDM were highly correlated. They expanded the set of approaches to include utterances as the base in the calculations (Oetting & McDonald, 2002). Oetting and Pruitt (2005) demonstrated that focusing on a smaller core set of AAE features rather than a larger range of potential features when calculating DDM was informative and highly efficient. Overall DDMs are robust, and minor variations in the calculation method yield relatively inconsequential differences (Renn & Terry, 2009).

Improving our understanding of style shifting by AAE speakers is a relatively new and important research direction in child language acquisition (Horton-Ikard & Miller, 2004;Washington & Craig, 1994), developmental language disorders (Oetting & McDonald, 2001; Oetting, Cantrell, & Horohov, 1999; Washington & Craig, 2004), and academic achievement (Craig et al., 2009; Kohler et al., 2007; Terry, Connor, Thomas-Tate, & Love, 2010). Unfortunately, these newer holistic approaches to the study of dialect, particularly the application of rate-based DDMs to characterizing language usage, have no comparable analyses with mature adult language users, representing a critical shortcoming in the knowledge base. The planning of future child language research would benefit from knowing more about how adult language forms vary systematically related to the tasks found to be so informative for children.

The Present Study

The purpose of this study was increase understanding of the variability that may be expected for production of contrastive AAE and SAE forms both between and within individuals by applying recent rate-based DDMs to the examination of discourse patterns of African American adults. The research heuristic was to elicit language samples with high ecological validity to the oral language tasks required of children; therefore, responding to a series of questions was selected as the language-sampling context. Furthermore, the goal was to describe the patterns of mature language users to help establish typical expectations for style shifting in this context; therefore, adults were selected as the participants.

A pilot study for another research project was opportune for meeting the present purposes. Data in the form of 50 semistructured interviews were collected in preparation for a large-scale, nationally representative longitudinal labor market survey. The larger data collection will include speech-language measures in order to examine connections between speech-language characteristics and racial economic disparities. As part of the larger survey, participants will be asked to respond to a set of questions designed to elicit more formal and less formal conversational speech. A smaller cohort was recruited and asked to participate in a pilot study designed to examine the effectiveness of these types of questions. Their responses provided the basis for the present study. The language sample elicitation procedures were based on the well-established and often-used *Rapid and Anonymous Survey* (RAS) methods. The RAS was introduced originally by Labov (1966) in his seminal sociolinguistic study where he engaged adult shoppers in a department store in New York City in brief question and- answer interactions with unknown interlocutors. The following research questions were posed.

1. Are there systematic differences in DDMs relative to the social variables characterizing this sample of adults? Specifically, are there major differences in DDMs between the adult participants based on gender, employment status, or educational achievement levels?

2. Are there systematic differences in DDMs relative to stylistic variables? Specifically, are there significant differences in DDMs based on race of addressee; and are there within-individual differences in their response to questions designed to elicit less formal and more formal discourse?

3. What are the characteristics of morphosyntactic feature production for adults differing in gender, employment status, and educational achievement levels?

4. What are the characteristics of morphosyntactic feature production for adults when discussing topics designed to elicit more formal and informal speech?

Method

Data Collection

Setting and structure of the interviews—The interviews were based on the RAS (Labov, 1966) methods used by sociolinguists. They consisted of interviews between an unacquainted dyad composed of an interviewer and an African American adult. They were collected at a shopping mall in the south Chicago community of Calumet City, Illinois, situated approximately 30 miles south of downtown Chicago, and considered part of the Greater Chicago Metropolis. The 2000 census reports approximately 39,000 residents, about half of whom (53%) are African American, and approximately 12% of residents were living below the poverty line.

The interviewers were instructed to approach individual African American shoppers who appeared to be between the ages of 20 and 30 years. The interviewers invited the adults to participate in the study, determined their age appropriateness, asked for basic demographic information, and then posed the experimental questions. The full text of the interviewer remarks are presented in Appendix A. Interviews were digitally recorded on small handheld recorders. Four of the interviews yielded voice recordings of insufficient quality to permit reliable transcription, and these four individuals were removed from the database, resulting in a final sample of 50 participants. Approval for this research was granted by the Institutional Review Board at the University of Chicago.

The RAS was brief in duration, consisting of approximately 1 min of project introduction, approximately 4 min of question-answer, and approximately 1 min to conclude the interaction. The average length of these conversations was 59.98 communication units (C-units; Loban, 1976) with a standard deviation of 20.46. The interviewers were two field-experienced middle-aged women, with multiple years of employment as field interviewers in the large-scale longitudinal labor market survey. One interviewer was African American and one Caucasian; both spoke SAE during the interviews. Both interviewers were female in order to eliminate gender of interviewer as a potential confounding variable for respondent behaviors in the context of a relatively small participant sample. Each interviewer collected data from 25 participants. Each participant was paid $20.

Participants

The participant sample consisted of 50 African American adults between the chronological ages of 20 and 30 years; mean (M) chronological age = 23.1 years; SD = 3.6 years. Thirty of the participants were women (60%), and 20 were men (40%). Most (68%) reported that they had some college education or were college graduates, and most (62%) reported that they were employed at the time of the interviews. Table 1 summarizes the demographic information.

Experimental Prompts

The experimental prompts asked questions that differed along dimensions expected to elicit a range of variation in AAE feature production, including differences in formality–informality (Baugh, 1983; Labov, 1972), mainstream and message-oriented compared with personal topics (Linnes, 1998; Rickford & McNair-Knox, 1994), and situational compared with metaphorical prompting (Blom & Gumperz, 1972). Participants were asked what they would say in a job interview and during a medical appointment (formal, message-oriented, metaphorical) and about their leisure time activities, including sports, music, and television interests (informal, personal, situational). The specific wording of the question sets is presented in Appendix A.

Analysis of the Language Samples

The audio recordings of the interviews were transcribed orthographically using the Coding for Human Analysis of Transcripts conventions of the Child Language Data Exchange System (CHILDES; MacWhinney, 1994). The transcripts were segmented into C-units, which defines an utterance as an independent clause plus its modifiers, single-word responses to discourse partner questions, and single-word acknowledgements to discourse partner comments. C-units were selected to provide consistency with prior child language studies using the DDM, and because the language samples in this study were all composed of spoken discourse for which C-units were developed.

AAE—The transcripts were coded for all instances of morphosyntactic features of AAE using established scoring definitions derived from the work of Craig and Washington

(2006), Green (2002), and Labov (1970). Morphosyntactic features rather than phonological, discursive, or prosodic features were selected for the following reasons: (a) They are a large set that are relatively well understood (Green, 2002); (b) they are most likely to show sharp changes in usage on the basis of style shifting, and thus offered the study a particularly sensitive scoring heuristic (Wolfram, 1969, 2004); and (c) they are less likely to be governed simply by regional determinants. Considered together, therefore, the coding of morphosyntactic features provided a potentially sensitive and informative taxonomy for exploring AAE usage while maintaining manageability of effort for a 50-sample corpus. Feature types were the unique codes listed in Appendix B, regardless of their frequency of use. Tokens were every occurrence of the features, regardless of type. Inventories of the types were developed for each respondent. The inventory of types permitted examination of feature diversity, whereas the token measures permitted estimates of amount of vernacular use.

Both feature type and token analyses permitted calculations of DDMs: the rate of feature production relative to the size of the conversational sample. DDMs were developed originally to help control for potential differences in opportunities for features to be produced when sample sizes varied, which characterizes spontaneous and semi-structured spontaneous discourse (Craig et al., 1998). DDMs were calculated as follows:

$$\text{typDDM} = \frac{\#\,\text{feature types}}{\text{words in sample}} \qquad \text{tokDDm} = \frac{\#\,\text{feature tokens}}{\text{words in sample}}.$$

Transcription reliabilities were established for each sample by independent observers who retranscribed the response to one randomly selected question for each participant. Morpheme and C-unit reliabilities were high (99% and 100%, respectively) when the number of agreements was divided by the number of disagreements. Five samples (10%) were randomly selected, and all of the samples were recoded for the AAE morphosyntactic coding taxonomy; reliabilities were high for AAE types (94%) and tokens (93%).

Results

Most of the participants ($n = 48$; 96%) produced one or more features of AAE during their interviews. The two participants who did not use AAE at any time during the interviews were interviewed by the Caucasian examiner, were themselves female, and were employed at the time of the interview. One was 28 and one was 21 years of age, and one had completed some college, whereas the other had completed high school. The amount of AAE produced by the 48 individuals who did speak AAE during the approximately 4-min interviews varied widely, ranging from one token to 35 ($M = 7.7$, $SD = 7.1$). The size of the samples varied widely as well, ranging from 140 to 869 words ($M = 402.7$, $SD = 153.9$), underscoring the need to use DDM rate measures to control for sample lengths in analyses of vernacular usage.

We examined amounts of feature production using a series of DDM analyses. Overall, the typDDM was .014 ($SD = .009$) and the tokDDM was .019 ($SD = .013$), indicating that on average in the interviews, a different type of morphosyntactic feature was generated for every approximately 71 words (1/.014 = 71 words), and regardless of type one instance of morphosyntactic features was generated for every 53 words (1/.019 = 53 words). The typDDM and tokDDM were highly correlated at a statistically significant level (Pearson product–moment correlation $r = .926$, $p = .000$).

AAE Patterns Related to Social Variables

AAE feature rates—We examined selected social variables, those distinguishing segments of the participant sample from each other, for their relationships to the production of AAE features. DDMs were not statistically different relative to gender: typDDM, $t(48) = 1.49$, $p = .142$, $d = 0.421$; tokDDM, $t(48) = 1.67$, $p = .102$, $d = 0.472$. Similarly, DDMs were not statistically different relative to employment status: typDDM, $t(48) = 1.33$, $p = .189$, $d = 0.376$; tokDDM, $t(48) = 1.37$, $p = .179$, $d = 0.387$ (see Table 2).

However, DDM productions varied systematically with large effect sizes based on the educational history of the participant—typDDM, $F(3, 46) = 7.61$, $p < .001$, $\eta^2 = .332$; tokDDM, $F(3, 46) = 6.80$, $p = .001$, $\eta^2 = .307$— evidencing a steady decrease in the rate of feature usage with increases in educational level. Tukey's honestly significant difference (HSD) post hoc comparisons revealed that typDDM was not statistically different for participants with less than high school or only high school educational histories ($p = .081$). However, the decreases in typDDM from the levels for the participants with less than a high school education ($M = .026$) and some college or with a completed college degree ($M = .012$, $p = .002$, and $M = .005$, $p = .000$, respectively) were statistically significant, as was the typDDM decrease between high school/GED ($M = .016$) and being a college graduate ($M = .005$, $p = .044$). As can be seen in Table 2, the same relationships held for tokDDM. Whereas the number of participants was small in the two levels representing the extremes of this variable, and the significant differences for both typDDM and tokDDM were greatest between nonconsecutive levels of the variables, the two levels representing high school and the two representing college were collapsed to form two larger groups for the purposes of subsequent analyses.

Feature patterns—Twenty-three types of morphosyntactic features were produced by one or more participants. No single feature was used by all participants. Table 3 reports the percentage of participants with some high school or high school completed/GED producing each feature compared with those with some college or a college degree. Some features were quite widely distributed. The COP and subject–verb agreement (SVA) were used by half or more of the participants regardless of educational level. Other features were quite rare, including HAD, zero –*ing* (ING), regularized reflexive pronoun (REF), remote past *been* (BEN), and *fitna/sposeta/bouta* (FSB), which were used by less than 10% of either subsample. Decreased usage of the COP, IBE, ain't (AIN), existential *it* (EIT), and completive *done* (DON) were the features that most distinguished the patterns of usage between groups.

AAE Patterns Related to Style Variables

AAE feature rates—We examined selected style variables—race of addressee and question topics—for their relationships to the rate of production of constrastive AAE forms. There were no significant differences in the amount of AAE produced by the participants in their conversations with the African American and Caucasian interviewers: typDDM, $t(48) = 0.124$, $p = .902$, $d = 0.035$; tokDDM, $t(48) = –0.209$, $p = .835$, $d = 0.059$.

The DDM levels elicited by the two question sets showed no significant associations to each other (typDDM: $r = .076$, $p = .601$; tokDDM: $r = .005$, $p = .971$). Subsequently, two repeated-measures analyses of variance (ANOVAs) were tested separately on typDDM and tokDDM (see Table 4). The measures included three between-subject factors—level of educational achievement (two levels), gender (two levels), and employment status (two levels)— and one within-subject factor: question set (two levels: leisure activities and message-oriented).

The ANOVA results confirmed the main effect for educational achievement for both typDDM, $F(1, 46) = 9.373$, $p = .004$, $\eta^2 = .169$, and for tokDDM, $F(1, 46) = 9.288$, $p = .004$, $\eta^2 = .168$, with large effect sizes. Furthermore, the analysis revealed a significant main effect for question set with large effect sizes for both typDDM, $F(1, 46) = 19.147$, $p = .000$, $\eta^2 = .294$, and tokDDM, $F(1, 46) = 28.557$, $p = .000$, $\eta^2 = .383$. There were no significant interaction effects between the typDDM or tokDDM question types and the social variables (see Table 4), indicating that the different levels of DDM reflected differential responding to the question types rather than the coinfluences of participant characteristics. The participants responded to the leisure activities question set by using significantly more morphosyntactic types (M typDDM = .019) than they did for the message-oriented question set (M typeDDM = .009), approximately doubling the level. Similarly, the participants produced significantly more tokens in response to the leisure activities question set (M tokDDM = .027) than for the message-oriented question set (M tokDDM = .010), more than doubling the level (see Table 4). These non-significant findings help to rule out an alternative interpretation of our data. Whereas the leisure activities elicitation questions always followed the message-oriented questions, an alternative interpretation could be that the respondents' greater use of AAE features in response to the leisure activities questions resulted from increasing interpersonal familiarity between the respondent and the interviewer as the interview progressed, rather than from discourse context. However, if that were the case, then we should have observed larger DDMs for the medical appointment question than the job interview question as well, because the job question always preceded the medical one. Instead, mean DDMs were not significantly different between these two sets of questions, within the message-oriented context for typDDM (job $M = .009$; medical $M = .009$) and tokDDM (job $M = .009$; medical $M = .011$).

Feature patterns—Table 3 also summarizes the extent to which specific features were produced by one or more participants in response to the leisure activities and message-oriented question sets as well as their percentage changes between the two contexts. Of the 22 types used in the leisure activities context, all but two—zero preposition (ZPR) and BEN—decreased in the percentage of participants using the feature in the message oriented context. These two features that did not decrease showed minimal changes from 2 to 4 percentage points. Three features were more widely dispersed across participants—COP, SVA, and PRO—than others, occurring in 25% or more of the interviews. These more common features also were those that decreased the most in the message-oriented context, evidencing reductions from 26 to 40 percentage points. The subset of features that were more rare—AIN, DON, ZPR, double marking (DMK), HAD, ING, REF, zero *to* (ZTO), FSB, and BEN—evidenced small changes between the leisure activities and message-oriented contexts, with differences ranging from only 2 to 6 percentage points. Interestingly, three features—zero article (ZAR), indefinite article (ART), and zero modal auxiliary (AUX)—although produced by relatively more participants than many of the other features, showed no decrease in the message-oriented context.

The final analysis probed feature production patterns further, relative to their opportunities for occurrence. Unlike many of the features, the two most common features, COP and SVA, are well suited to an opportunity-based analysis because both include AAE and SAE features that are readily discernible. Accordingly, we calculated the total frequencies of copula omission relative to the total frequencies of copula omission plus copula inclusion, yielding a percentage frequency of occurrence of the AAE feature relative to opportunities and regardless of the number of participants involved. Figure 1 displays the results. When total opportunities was the basis for the analysis, the SVA feature was more likely to occur than the COP feature, occurring approximately 3 times more often in the leisure compared with the message-oriented contexts. Usage of both common AAE forms showed sharp declines between the leisure activities and message-oriented contexts.

Discussion

In this study, we examined the influences of social and style variables on the production of AAE features by young adult men and women when responding to questions posed by an unacquainted interviewer, based on the sociolinguistic elicitation methodology of RAS. The questions were designed to reflect less formal discourse centered on personal topics, and more formal message-oriented discourse; the analyses included vernacular rates and feature production inventories. The results revealed extensive variability both across and within individuals, with systematic effects related to social and style variables. Each major finding is discussed below.

Overall Variability

Every aspect of the analyses in this study underscored the extensive amounts of variability that characterizes production of AAE features. For those who used AAE, tokens of AAE forms ranged across individuals from one to 35 exemplars during the approximately 4-min discourse samples. Most participants used AAE features to some extent; however, this varied as well with two individuals not producing any. Even for the variables that showed systematic variations in AAE feature production—educational achievement level and question type—there was considerable variability. Some features were widely distributed across individuals, whereas others were produced rarely. This extensive variability is consistent with prior research for both adults and children showing a relatively large range of AAE feature production across and within individuals (Labov, 1972; Oetting & McDonald, 2002; Rickford, 1992; Washington & Craig, 1994; Wolfram, 2004).

Wolfram and colleagues (Renn & Wolfram, 2009; Van Hofwegen & Wolfram, 2009) have hypothesized that AAE feature production rates are age-graded, with peak periods prior to first grade, a dip between first and fourth grades, and increasing usage beyond fourth grade. Although no direct comparisons between children and adults were possible in this study, the present findings are suggestive that early adulthood may be another period of relatively high usage. For adolescents and adults, high levels of vernacular usage may signal an affirmation of cultural identity, ethnic group membership, and solidarity (Kendall & Wolfram, 2009; Linnes, 1998; Rickford & McNair-Knox, 1994; Wolfram, 2004) and thus be highly valued and very important to the speaker. By implication, the mature dialect speaker should show variable but systematic levels of AAE feature production, as observed in this study.

Social Variables

Social variables, the permanent, long-term factors that distinguish individuals from others, included gender, employment status, and highest level of educational achievement for the present study. AAE feature production rates did not vary significantly related to gender. This finding was unexpected because prior research has reported that males produce higher rates of contrastive AAE forms than females across the age span, from very young children (Washington & Craig, 1998) through youth and adulthood (Labov, 1990; Wolfram & Fasold, 1974). Much of the prior research has included phonological features, whereas the present study examined morphosyntactic features only. However, Beck-Thomas (2011) examined monophthongization of /aɪ / using the same data set as in the present study and found significant gender differences. Perhaps, for style-shifting purposes, men and women use their phonological and morphosyntactic features in different ways. In the present study, we did not examine linguistic environment as did Beck-Thomas, and in the Beck-Thomas study, the author did not examine morphosyntactic features as in the present research. Consequently, a direct comparison of the contributions of linguistic context and style effects on these two feature systems relative to the social variable of gender is not possible at this time but warrants future examination.

Non-significant patterns were found in this study as well for employment. Participants differed from each other in reporting that they had worked for pay in the previous week (62%) or had not (38%). This variable has not been considered systematically in most prior research unless it is part of a constellation of information used to determine SES. In the prior literature, individuals from lower SES homes have been found to produce considerably greater AAE features than those from MSES backgrounds (Labov, 1972; Rickford, 1999). To the extent that employment status provides a rough estimate of SES, one would anticipate that individuals reporting that they were employed would show lower rates of AAE features than those who reported no immediate prior employment, but this was not the case. Reporting employment status as a categorical yes/no variable may not have been sufficiently sensitive to social variable influences, whereas other, more comprehensive measures, such as the Hollingshead Four-Factor Index of Social Status (Hollingshead, 1975), might have detected differences. Widespread levels of high unemployment during the survey period (November 2009) also may have reduced the sensitivity of style difference measures to employment status by reducing dissimilarities between employed and unemployed respondents.

Unlike the other sources of differences among participants, educational achievement level did impact rates of production of AAE features. Someone with less than a high school degree or GED produced AAE forms at a rate approximately 5 times that of someone who had graduated college. This finding is consistent with the recent research in education, which has linked greater use of AAE with lower test scores (Charity et al., 2004; Connor & Craig, 2006; Craig et al., 2009). Considered together, these findings indicate that these negative associations between relatively high levels of AAE feature production and low educational achievement observed during childhood persist into adulthood, and, overall, are quite durable.

There were many similarities in the feature inventories used by both educational achievement groups. Rare features were rare for both groups. All but two features (ZAR and PST) were used less frequently by the higher education group compared with the lower education group. Higher education and greater exposure to SAE may make these AAE speakers more capable of concealing features (Mufwene, 2001). Production levels of five features showed the sharpest declines and thereby distinguished the two groups: COP, IBE, AIN, EIT, and DON. Wolfram (2004) has observed that SAE is best characterized by an absence of stigmatizing features rather than by the presence of positively valued features. By implication, the sharp decline in use of these five features by participants in the higher education group is suggestive that these particular features are devalued.

Style Variables

Style variables, reflecting a response to the immediate environment, in this study included race of addressee and topic. Half the group of participants was interviewed by an African American examiner and half by a Caucasian examiner. Both examiners were middle-aged and field experienced, and both spoke SAE. There were no differences in the rates of AAE forms between the 25 participants interviewed by each examiner. This finding does not rule out that race-of-addressee differences might have been detected if each participant spoke to each interviewer and comparisons were then made in their intra-subject production levels. However, systematic differences in rates of AAE feature production were readily detected when the variable of interest was level of educational achievement, suggesting measurement sensitivity was not a problem.

In contrast to our findings, prior research does report race-of-examiner effects (Fasold, 1972; Rickford & McNair-Knox, 1994; Terrell et al., 1977). In the prior research, the addressee often spoke AAE, whereas both examiners in the present study only spoke SAE.

In the present study, we adopted SAE as the language form spoken by the interviewers to mirror the discourse style present in educational contexts, and thus contribute baseline information about style shifting by mature language users in contexts with strong ecological validity to classrooms. The present findings suggest that the language style adopted by the addressee is a very powerful influence and can temper the influence of race of addressee in style shifting.

The second opportunity to observe style shifting was created by posing different types of questions to the participants. The leisure activities question set asked about the participants' favorite sports, music, and television programs and was designed to elicit informal discourse that was more personal in nature and that was situational, evolving in the here and now through dialogue with the examiner. In contrast, the message-oriented question set was more metaphorical, asking the participants to imagine themselves in a job interview and what they would say about themselves, or a doctor's office asking for treatment for the flu. Consistent with the prior literature (Renn & Terry, 2009; Rickford & McNair-Knox, 1994; Wolfram, 1969), the leisure activities questions elicited significantly more AAE features. Furthermore, the differences were large no matter whether between- or within-subject analyses were the basis for the comparisons. AAE forms were reduced by half or more between contexts. The mature dialect speakers in this study not only showed high levels of AAE feature production in the personal context but also style shifted in the message-oriented context.

The feature inventories in the present study revealed a subset of features that were common across participants (COP, SVA, PRO) compared with a subset of features that were rarely used (DMK, HAD, ING, REF, ZTO, FSB, BEN). Features that were rare made little contribution to the style shifting observed between discourse contexts, whereas the more common features were more important to the style-shifting profiles. This finding is consistent with the hypothesis of "differential accommodation" by Bell (1984) and supported by Rickford and McNair-Knox (1994), which proposes that features that differentiate speakers from each other on the basis of social distinctions likely will be the same ones that differentiate contexts when the speakers share that social variable but style shift.

Measures

In the present study, two major approaches were applied to data analysis. One was a token and a type tally reported relative to number of words produced, as the rate measures—DDMs. This approach has some important limitations. From a theoretical perspective, DDMs assume that linguistic variation can be captured by quantitative rather than qualitative measures, by a single value or range of values. DDMs are theoretically inadequate on their own. However, DDMs can be highly informative, as is the case in the present study when paired with complementary descriptive approaches like inventories of feature production. DDMs revealed significant differences in amounts of AAE feature usage relative to educational achievement levels and question types, but not for gender, employment status, or race of examiner. Similarly, in educational research, DDMs have revealed a number of important characteristics of student use of AAE features in the elementary grades. The second analytic approach complemented the DDMs and showed which features were contributing to the quantitative differences based on educational levels (COP, IBE, AIN, EIT, DON). In addition, the feature inventories showed that most features decreased during style shifting, with the most common forms tending to decrease the most (COP, SVA, PRO).

Recently, Renn and Terry (2009) have suggested that a second problem with DDMs relates to the large number of features that typically are included in the calculations. For example, Craig et al. (2009) included over 30 morphosyntactic and phonological types in their

calculations of DDMs. Renn and Terry argue that if DDM is the only measure used and each feature is of interest, then more sophisticated statistical methods such as factor analysis would be precluded because this statistic would require an impractically large participant sample in order to have sufficient power to investigate 30 or more variables. Alternatively, like the early studies that searched for a literacy outcome link to specific features (Gemake, 1981; Seymour & Ralabate, 1985; Steffensen et al., 1982), Renn and Terry propose selecting a subset of features and basing DDMs just on the subset production rates. Renn and Terry found that DDMs correlate very highly with each other, regardless of whether 30 or more features are included or their subset consists of six features. In the present study, this statistical problem was avoided by applying more than one approach to the treatment of the data, specifically by calculating DDMs to examine broad across-group relationships, and also by creating feature production inventories. The six features selected by Renn and Terry were nasal fronting, copula absence, modal auxiliary absence, third-person singular –*s* absence, multiple negation, and *ain*'*t* for *is not*. It will be important for researchers adopting the subset approach to validate their feature choices. Application of the Renn and Terry choices in the present study would have missed the contribution of IBE, EIT, DON and others to distinguishing the AAE feature patterns related to educational achievement levels, and PRO to the style shifting by this sample of AAE-speaking adults.

Overall, the outcomes of this study demonstrate the potential for researchers of using a small number of carefully constructed questions to elicit style shifting. The mature language users in this study produced a large number of exemplars of AAE features (up to 35 tokens) and showed a considerable range across individuals (from one to 35 tokens) in a brief question–answer elicitation context of 4-min duration. It is the case that some research questions can be answered with small numbers of participants; however, when the research questions are better answered with sample sizes sufficiently large to ensure statistical power, the two-pronged heuristic of the present study should be effective. The RAS methodology continues to recommend itself.

Acknowledgments

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Appendix A. The interview questions

Question set: Message-oriented

A. For respondents indicating that they were working for pay, the interviewer said: Suppose you decided you wanted to look for a <u>new</u> job, and the place where you really wanted to work called you and asked you to come in for an interview. How would you describe your skills, qualifications, and experience to me if I were the person interviewing you for the job?

B. For respondents indicating they were not working for pay, the interviewer said: Let 's suppose you applied for a job that sounded really interesting to you and they called you and asked you to come in for an interview. How would you describe your skills, qualifications, and experience to me if I were the person interviewing you for this job?

All respondents were then asked: Now I'd like to ask you a couple of questions about your health. First, how would you describe your general health? Would you say it is … (A) Poor, (B) Fair, (C) Good, (D) Very good, or (E) Excellent? After the respondent answered, the interviewer said: Now suppose you had the flu bad enough that you went to a clinic or doctor's office. How would you explain to the doctor or nurse how you felt?

Interviewers were instructed to obtain at least 1 min of speech for each of the questions and to use probes such as "tell me more" or "the more you tell the doc, the better he can figure out the problem."

Question set: Leisure time activities

During development of the experimental questions, it became apparent that similar but not identical questions would be necessary to elicit comparable levels of responsiveness by males and females, as follows.

A. If the respondent was male, the interviewer said: We are interested in knowing more about what people do in their free time. Do you follow sports? If the respondent answered "yes," then the interviewer asked: What are your favorite teams? The interviewer was instructed to probe to elicit at least 2 min of speech and to use the following additional prompts: What would you say was the last great game that you saw? What happened? Who are their key players? How are they playing lately? (team or players) How do things look for them this season? What about next year? What do they need to do to win this season? If the respondent answered "no," then the interviewer asked: What about music? Who are your favorite musicians or artists? As indicated above, the interviewer was instructed to probe to elicit at least 2 min of discourse and to use as necessary the following additional prompts: What do you like about them or their music? How would you describe their music? What are your favorite tunes? What about their videos? Any video you think that is really great? Why?

B. If the respondent was female, the interviewer said: We are interested in knowing more about what people do in their free time. Do you watch television? If the respondent answered "yes," then the interviewer asked: What are your favorite shows? The interviewer was instructed to probe to elicit at least 2 min of speech and to use the following additional prompts: What happened on the last show you watched? Which of the cast do you like best? What about them do you like? For reality shows: Who do you think is going to win? Why? If the respondent answered "no," then the interviewer asked: What about music? Who are your favorite musicians? The interviewer was instructed to probe to elicit at least 2 min of speech and to use the following additional prompts: What do you like about them or their music? How would you describe their music? What are your favorite tunes? What about their videos? Any video you think that is really great? Why?

Appendix B

The morphosyntactic features with examples From the interviews.

	Feature (code)	Example
1.	*Ain't* (AIN)	"lot of this new stuff I <u>ain't</u> feelin it"
	A/n't used as a negative auxiliary in have+not, do+not, are+not, and is+not	
2.	Appositive pronoun (PRO)	"<u>the Bulls</u> I think <u>they're</u> gonna be okay"
	Both a pronoun and a noun, or two pronouns, for same referent	
3.	Completive *done* (DON)	"he <u>done</u> won mostly every award"
	Done is used to emphasize a recently completed action	
4.	Double marking (DMK)	"but now he <u>tooken</u> over"
	Multiple agreement markers for regular nouns and verbs;	

Feature (code)	Example
>hypercorrection of irregulars	
5. Existential *it* (EIT)	"because it's a lot more money out there"
It is used in place of *there* to indicate a referent without adding meaning	
6. *Fitna/sposeta/bouta* (FSB)	"and she was fitna get up to try and kill them"
Abbreviated forms coding imminent action	
7. Preterite *had* (HAD)	"I've had uh worked in a grocery store"
Had appears before simple past verbs	
8. Indefinite article (ART)	"may not have a appetite"
A is used regardless of the vowel context	
9. Invariant *be* (IBE)	"I be watching a lot of reality series"
Infinitival *be* coding habitual actions/states	
10. Multiple negation (NEG)	"it might not have nothing to do with the situation"
Two or more negatives used in a clause	
11. Regularized reflexive pronoun (REF)	"I mean he need to evaluate hisself too"
Hisself, theyself, theirselves replace reflexive pronouns	
12. Remote past *been* (BEN)	"I been workin at my current sale for over thirteen years"
Been coding action in the remote past	
13. Subject-verb agreement (SVA)	"I think they was doing a little dance competition or whatever"
Subjects and verbs differ in number	
14. Undifferentiated pronoun case (UPC)	"her and Jacks they wanna get a divorce"
Pronoun cases used interchangeably	
15. Zero article (ZAR)	"now I'm just _ full time student in college"
Articles are variably included	
16. Zero copula/auxiliary (COP)	"she __ very talented and very entertaining"
Copula and auxiliary forms of the verb *to be* are variably included	
17. Zero *-ing* (ING)	"and I am also open to learn __ new things"
Present progressive —*ing* is variably included	
18. Zero modal auxiliary (AUX)	"if I had the flu I __ explain it to her as headache, abdominal pain"
Will, can, do, and *have* are variably included as modal auxiliaries	
19. Zero past tense (PST)	"I have work _ for a company doing customer service"
-ed markers are variably included on regular past verbs, and >present forms of irregulars are used	
20. Zero plural (ZPL)	"the key player _ were Dwayne Wade, Shaquille O'Neal, LeBron James"
-s is variably included to mark number	
21. Zero possessive (POS)	"I can't think of the character _ name"
Possession coded by word order, so -s is deleted or the case >of possessive pronouns is changed	

Feature (code)	Example
22. Zero preposition (ZPR)	"so __ an eight hour shift you would have to have eight sales"
Prepositions are variably included	
23. Zeroto(ZTO)	"aside from all the other gospel artists they able __ reach just
Infinitival *to* is variably included	>more than like older people in church"
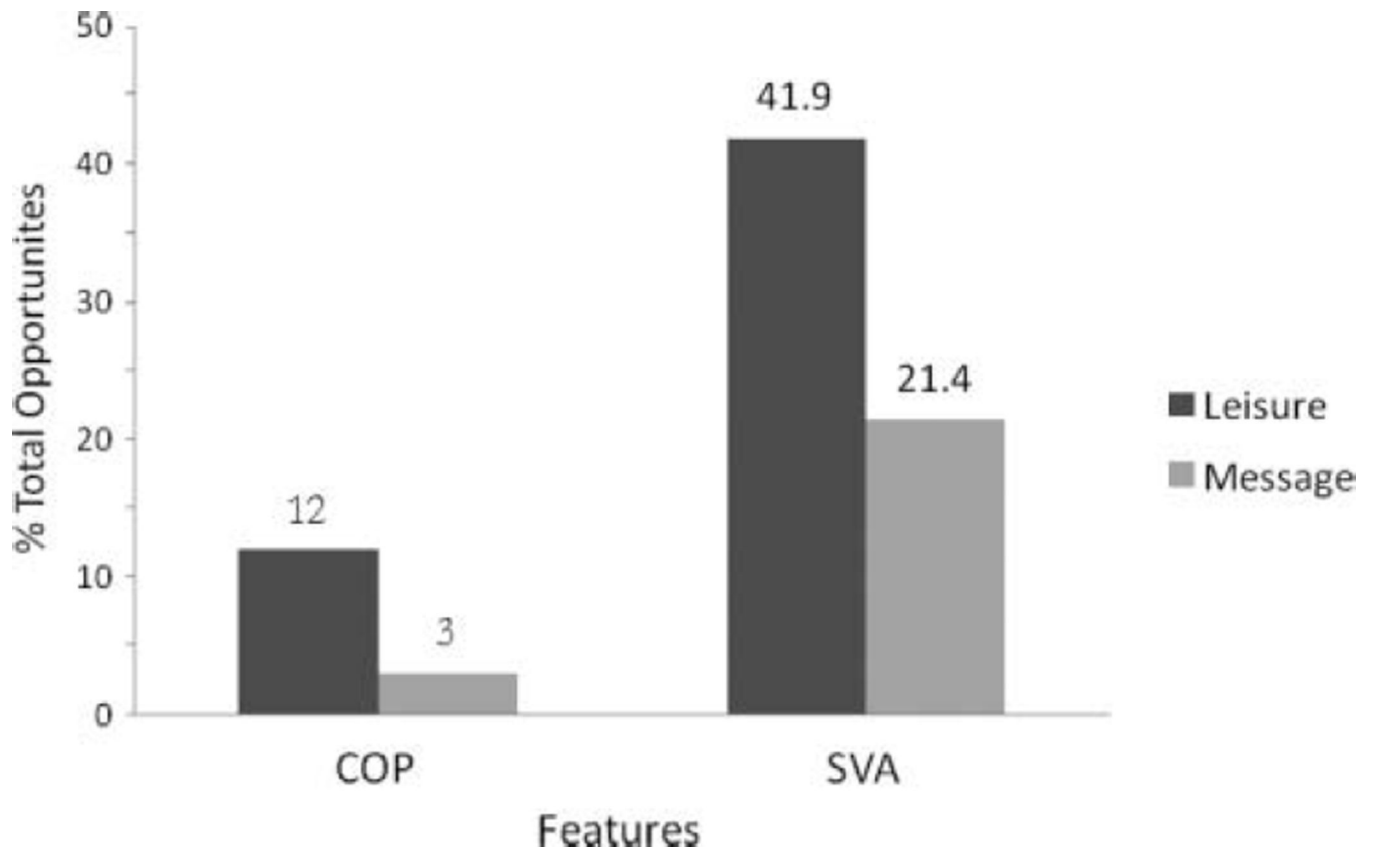
Figure 1.
Percentage of African American English features relative to opportunities for COP and SVA features.

Table 1

The number (*n*) and percentage frequency (%) distribution of the participant sample relative to educational achievement level, gender, and whether they were employed (+) or not (−).

Characteristic	*n*	%
Education level		
< High school/GED	5	10
High school/GED	11	22
Some college	30	60
Bachelor's degree	4	8
Gender		
Male	20	40
Female	30	60
Employment status		
+employed	31	62
−employed	19	38

Note. GED = General Educational Development diploma.

Table 2

Means (and *SD*s) for the dialect density rate measures for feature types (typDDM) and tokens (tokDDM) overall, by social variables.

Contrast	n	typDDM		tokDDM	
		M	*(SD)*	*M*	*(SD)*
Overall	50	.014	(.009)	.019	(.013)
Education		$F(3, 46) = 7.61, p = .001$		$F(3, 46) = 6.80, p = .001$	
<High school/GED	5	.026^{a,b}	(.008)	.036^{d,e}	(.017)
High school/GED	11	.016^c	(.011)	.022^f	(.013)
Some college	30	.012^a	(.006)	.016^d	(.010)
Bachelor's degree	4	.005^{b,c}	(.002)	.005^{e,f}	(.002)
Gender		$t(48) = 1.49, p = .142$		$t(48) = 1.67, p = .102$	
Male	20	.016	(.010)	.022	(.013)
Female	30	.012	(.008)	.016	(.013)
Employment		$t(48) = 1.33, p = .189$		$t(48) = 1.37, p = .179$	
+employed	31	.012	(.009)	.017	(.014)
−employed	19	.016	(.008)	.022	(.012)

Note. DDM = dialect density measure.

[a] *p* = .002.

[b] *p* = .000.

[c] *p* = .044.

[d] *p* = .003.

[e] *p* = .001.

[f] *p* = .055.

Table 3

Percentage of participants who produced each feature type, by educational achievement level and question set.

Feature	Educational achievement level			Question set		
	High school %	College %	difference in %	Leisure %	Message %	difference in %
COP	88	53	−35	56	16	−40
SVA	62	50	−12	42	16	−26
PRO	50	32	−18	36	2	−34
ART	44	29	−15	18	18	0
AUX	44	29	−15	18	18	0
ZAR	38	44	+6	24	24	0
IBE	38	9	−29	16	2	−14
AIN	31	3	−28	10	6	−4
EIT	31	3	−28	12	2	−10
ZPL	25	20	−5	18	6	−12
NEG	25	12	−13	16	6	−10
UPC	25	12	−13	16	0	−16
DON	25	3	−22	8	2	−6
POS	19	18	−1	18	0	−18
ZPR	19	15	−4	8	10	+2
PST	12	15	+3	12	4	−8
DMK	12	3	−9	4	2	−2
ZTO	12	3	−9	4	2	−2
HAD	6	6	0	4	2	−2
ING	6	6	0	4	2	−2
REF	6	3	−3	4	0	−4
BEN	6	3	−3	0	4	+4
FSB	0	3	+3	2	0	−2

Note. COP = zero copula; SVA = subject–verb-agreement; PRO = appositive pronoun; ART = indefinite article; AUX = zero modal auxiliary; ZAR = zero article; IBE = invariant *be*; AIN = ain't; EIT = existential *it*; ZPL = zero plural; NEG = multiple negation; UPC = undifferentiated pronoun case; DON = completive *done*; POS = zero possessive; ZPR = zero preposition; PST = zero past tense; DMK = double marking; ZTO = zero *to*; HAD = preterite *had*; ING = zero–*ing*; REF = regularized reflexive pronoun; BEN = remote past *been*; FSB = *fitna/sposeta/bouta*.

Table 4

Repeated-measures analysis of variance for typDDM and tokDDM, Wilks's lambda.

Source and variable	Type III sum of squares	Wilks's Λ	F	p
I. typDDM				
Between subjects				
Education	.001		9.373	.004
Gender	2.1×10^{-5}		0.209	.650
Employment	7.2×10^{-6}		0.070	.792
Within subjects				
Question set		.706	19.147	.000
Question × Education		.988	0.548	.463
Question × Gender		.987	0.598	.443
Question × Employment		1.000	0.004	.949
II. tokDDM				
Between subjects				
Education	.002		9.288	.004
Gender	1.6×10^{-4}		0.763	.387
Employment	1.1×10^{-5}		0.051	.823
Within subjects				
Question set		.617	28.557	.000
Question × Education		.942	2.856	.098
Question × Gender		.965	1.662	.204
Question × Employment		.993	0.342	.561