The Intersection of the Phonologies of Standard American English and African American Vernacular English as Seen Through Orthography

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0. Abstract

This thesis addresses the orthography of young African American Vernacular English speakers. The subjects are first grade students at a charter school in Philadelphia, and the study examines the relationship between the students' orthography and orthographic errors, the teacher's models of orthography and the spelling strategies she provides, and the varieties of English spoken by the teacher and the students as they relate to students' pronunciations of specific words and their spelling attempts. This will build on research on literacy in early elementary students (Terry et al. (2010)) that compares students across many schools, socioeconomic statuses, and risk factors and allow for a more in-depth account of students from a relatively homogenous school where more factors can be controlled for. The students involved are all African American and speakers of African American Vernacular English, and the school has a high population of students with low socioeconomic status. Consideration of the cultural issues inherent in teaching a language minority in the dominant language led to discussion of the Oakland Ebonics Controversy and the Ann Arbor Decision.

To conduct the research, I listened to students as they participated in normal discussions with their peers and their teacher, and transcribed salient words and phrases into IPA. I also documented writing samples and examined the types of errors that were made for patterns related to African American Vernacular English phonology, as defined by Labov (1972), Sligh & Conners (2003), and Wyatt (2001). I conducted a sociolinguistic interview with the teacher to determine her accent, and a content interview to learn more about her approach to spelling and AAVE. I expected that the spelling of both vowels and consonants would be influenced

primarily by the students' speech, and secondarily by the teacher's speech and the spelling strategies available. I found that there was a large gap between the best and worst spellers, and that familiarity with English spelling patterns enabled some students to write clearly with phonetically-motivated errors, while many students had such variation in how they represented each vowel sound that most vowel data was inconclusive. Consonant data was more consistent, with a key finding that students could spell consonant clusters and syllables with multiple consonants as long as they had access to a pronunciation where all of the necessary phonemes existed. I found unusual invented spellings that represented a stronger phonemic awareness in the stressed syllable than the unstressed syllable of disyllabic words, such as <on crism I am gon to duw nufin!> for 'on Christmas I am going to do nothing!' and <we dite> for 'we didn't'. This research follows from Treiman et al's (1993) work on the relationship between stress patterns and phonemic awareness, but also addresses issues of rule-based spelling in a typical classroom environment, unlike Sligh & Conners (2003).

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1. Literature Review

1.1 Introduction

This thesis will examine the spelling mistakes made by a group of first grade students in a charter school in Philadelphia. It seeks to determine how they relate to the African American Vernacular English spoken by the students, the Standard American English spoken by their teacher, and the spelling strategies that the teacher explains to her students.

The background research for this study covers two interconnected disciplines. In Sociolinguistics, Labov (1972) addresses the defining characteristics of African American Vernacular English. In Education, research on spelling development (Gentry 1982, Treiman 1992) and literacy acquisition (Aaron & Joshi 2006) provide a framework for the kinds of writing processes that the students might have access to at this point in their academic careers.

1.1.1 Sociolinguistics Terminology

To briefly lay out the terminology to be used here, African American Vernacular English (AAVE) will be the primary term used for "that relatively uniform grammar found in its most consistent form in the speech of black youth from 8 to 19 years old who participate fully in the street culture of the inner cities" (Labov 1972).[1] Historically, this term has evolved from "Nonstandard Negro English" to "Black English Vernacular" to "African American Vernacular English," and is often called "ebonics" in popular culture. The terminology will shift throughout the Literature Review to reflect the popular term at the time of publication of various sources because this also allows for some insight into the cultural atmosphere surrounding AAVE. When

[1] Labov's term for AAVE at the time of publication was Black English Vernacular, or BEV, but his characterization still holds.

presenting the study and discussing the variety in general, AAVE will be used. For the sake of following convention, this thesis will continue to use "Standard American English" to describe the variety characterized by Merriam-Webster's Dictionary as "substantially uniform...well established by usage in the formal and informal speech and writing of the educated, and that is widely recognized as acceptable wherever English is spoken and understood" (Lippi-Green 1997, p. 53).

1.1.2 Background on the Classroom

The Education terminology used here comes primarily from the classroom involved in this research, and easier to define because the vocabulary is more standardized throughout the Education literature than it is in Sociolinguistics. The classroom has 25 students, and they spend almost all of their learning time together. Desks are arranged in groups of four or five, and an arc-shaped "teacher table" has space for up to five children to sit within reach of the teacher. The students cycle through the same schedule every day: Morning Meeting, then Reading and Word Study as a literacy block for two hours in the morning, followed by Math, recess, lunch, Specials (art, gym, or Spanish), Writing or Vocabulary, and Explorations (Science and Social Studies). Within this set of subjects, writing and spelling practice takes place during the literacy block as well as during designated Writing time. Writing during Reading time would usually mean generating written responses to questions about stories they have read.

Word Study is the term for phonics at this school, so students break into groups based on spelling level and work with a teacher on phonics rules that will help them develop as spellers.

This practice has two components. The first involves memorizing "sight words," that is, words that students should be able to recognize and spell immediately. Sight words for one of the slowest phonics groups included "he", "is", "a", "and", "on", and "the", among others. These

words are available to students on the "word wall". The word wall is a large board on the back wall of the classroom where the teacher groups sight words alphabetically, so "as" and "a" are under the "A" heading. Students can ask during writing time to get up and consult the word wall. In the top right corner of the word wall, separated from the collection of sight words, is another set of words. The "word collection" is composed of vocabulary words such as "frustrated," "upset," "exhausted," or "helpful," and it is designed to enable students to use more varied vocabulary in their speech and writing.

The second component of phonics work is rule/pattern practice. The students are explicitly taught to apply the rules and patterns they have learned using specific vocabulary. For example, "sneaky e" refers to the word-final silent "e" that transforms the medial vowel from a "short vowel" into a "long vowel".[2] They learn how to spell patterns using chants, such as "i-n-g, ring, /ɪŋ/," that associate the spelling with a picture and a pronunciation. In a phonics lesson, the teacher might start with one pattern, such as the "welded sound" /æn/ <an> and build words that use this pattern, such as <tan>, <ban>, and <stand> (lesson plan from the classroom, 11/29/11).

The lesson culminates with dictation, where the students practice applying the strategies they have learned to the words that the teacher asks them to spell. This can come in the form of a sentence or a single word at a time.

Unlike the highly structured, guided practice of Word Study, Writing is much more unstructured. A mini-lesson on a particular feature of writing, such as use of quotation marks, is followed by a half-hour period of freewriting, which sometimes has a subject prompt or a feature prompt. An example of a subject prompt would be, "Write about the trip we took to the farm last

[2] In discussing data later, I will use the short vowel/long vowel system because it more easily represents the phoneme-grapheme correspondence that the students are learning. The following lists the "short" vowel sound and its transformation into a "long" vowel. A: /æ/→/eɪ/, E: /ɛ/→/i/, I: /ɪ/→/ɑɪ/, O: /ɔ/ or /ɑ/→/oʊ/, U: /ʌ/→/u/

week." An example of a feature prompt would be, "Write a story using dialogue." Occasionally, the freewrite is entirely open, but even then the teacher provides example subjects: "Today you can write about anything you want. I might write about what I'm doing this weekend, or what my plans are for Christmas." Throughout this time, the teacher circulates around the classroom, checking over the progress of the students. Spelling errors are not corrected unless they are impossible to decipher. If a student asks for help spelling a word, the standard response is, "tap it out"--where the student taps her finger with her thumb each time she hears a new phoneme in a word. At times, when appropriate, the teacher might direct the student to a spelling rule or sight word that can help, but the teacher does not spell words for her students.

1.1.3 Other Education Terminology

Probably the most common term in the spelling literature is *invented spelling*. This refers to words that are not spelled conventionally. The student might use any combination of spelling strategies to create this spelling, and it can be flexible or constant. To take an example from the dataset, the same child spelled *got* <god> and <got> within the same piece of writing. Another student spelled *child* <chilld> twice. For the first student, the spellings might have been invented because he heard the final phoneme differently each time he tapped it out. The second student's consistency suggests that he thinks his spelling is sufficient, either because he believes it follows the rules he has learned, or because he believes that it is the correct spelling.

The counterpart to invented spelling is *conventional spelling.* This is the spelling that one would find in the dictionary. To some extent, the conventional spelling of a word includes Standard American English grammar, so <The storm stop> is not conventionally spelled even though all of the words exist in the dictionary, because *stop* needs either and -s or an -ed to be grammatically correct, according to SAE grammar.

1.2 African American Vernacular English vs. Standard American English: Cultural Issues

Lippi-Green (1997) notes that simply calling one variety of English "standard" makes all other varieties "substandard" or "non-standard," categories that have distinctly negative connotations.[3] This distinction matches the perspective held by many Americans, that Standard American English is acceptable and other varieties are not. In Mufwene's (2001) survey of 45 black, 3 hispanic and 15 white English speakers residing in America, all of the white speakers stated that Black English existed, as did 28/45 black speakers. Some speakers' explanations of what African American English or Black English is were academic: "Dialect (ethnolect) of English used natively by many/most American (US) Blacks" (p. 40, white speaker) or "The language spoken by African Americans at home and on the street especially among themselves. It is very much related to English but it has its own grammatical/structural rules" (p. 41, African American speaker). Other explanations, including "use of a combination of slang words and phrases and existing words with a revised meaning" (p. 41, white speaker) and "a language that was spoken by slaves who were not given the opportunity to learn English that is grammatically correct..." (p. 41, African American speaker), are more judgmental. Wiley (2005:13) states that "the real communicative challenge between speakers of the 'standard' and speakers of 'accented' English is not to comprehend the other; rather, it is to overcome social judgments made on the basis of language."

These responses were not even taking into account the more controversial term "ebonics," which can be more culturally charged. Robert Williams coined the term to mean "the linguistic and paralinguistic features which on a concentric continuum represents the

[3] Lippi-Green uses "Mainstream US English" and "Non-Mainstream US English" to step away from some of the negative connotations of the "Standard American English" categorization, but most of the other sources choose to follow the "Standard American English" convention.

communicative competence of the West African, Caribbean, and the United States slave descendant of African origin" (qtd. in Mufwene 2001:27). Still, the interpretations of the word sometimes stray from its original definition. Some African Americans consider the term offensive, while others use it to claim power and separation from the mainstream white culture (Baugh 2000). Baugh (2000:74-75) synthesizes four definitions of Ebonics:

1. Ebonics is an international construct, including the linguistic consequences of the African slave trade (Williams 1975, 1997a).
2. Ebonics is the equivalent of black English and is considered to be a dialect of English (Tolliver-Weddington 1979).
3. Ebonics is the antonym of black English and is considered to be a language other than English (Smith 1992, 1997).
4. Ebonics refers to language among all people of African descent throughout the African Diaspora (Blackshire-Belay 1996).

Obviously, these definitions come from very different schools of thought, and all of them come from "Afrocentric proponents of the term"--excluding thinkers of all ethnicities and positionalities who were opposed to the term for any number of reasons.

1.3 African American Vernacular English in Educational Contexts: Legislative Action

1.3.1 Oakland Ebonics Controversy

In 1996, the Oakland Unified School District in California passed a resolution to provide content instruction to African American students in Ebonics. The resolution would have paid teachers more money for their ability to use Ebonics effectively in the classroom, with the originally stated end result of teaching Ebonics speakers how to speak Standard American English in the same way that they would teach bilingual students. This resolution was highly

controversial. A revised resolution took a less strong position--considering Ebonics to be a dialect of English instead of a language by itself, and stating a goal of improving English proficiency by "transition[ing] students from the language patterns they bring to school to English," and it still was unable to gain popular support (Oakland Unified School District Resolution 9697-0063 [revised], qtd. in Baugh 2000:45). One editorial in the *New York Times* called Ebonics "broken, inner-city English" (Brent Staples, qtd. in Baugh 2000:75), and the resolution led to attempts at further legislative action to ban Ebonics, such as House Resolution 28 of 1997 which stated that "no Federal funds should be used to pay for or support any program that is based upon the premise that "Ebonics" is a legitimate language." As the controversy faded in Oakland, Congress chose not to further pursue such a "racially divisive social distraction that only aggravated tender racial wounds" (Baugh 2000:53).

1.3.2 Michigan Court Case, 1979

Eighteen years prior to the Oakland Ebonics controversy, a district court in Michigan took on the issue of teaching "black English" in schools. In *Martin Luther King Jr. Elementary School Children et al. v. Ann Arbor School District Board (1979),* Eleven students at Martin Luther King Jr. Elementary School sued the school district because they were not being adequately taught to navigate the differences between their community's language (Black English) and the language of the school (Standard American English). The court ordered the school district to identify students who spoke Black English and to create a plan of instruction that recognized the validity of the community language while giving the students access to Standard American English.

1.3.3 Discussion

It is somewhat surprising that the Michigan court case came before the Oakland resolution, because the Michigan case had a fairly positive outcome in terms of recognition for AAVE as a legitimate educational issue, and Oakland's resolution was such an abject failure. Obviously, these cases were handled very differently. In Oakland, the school board put together a resolution that addressed their concerns using language from Title VII, which funds bilingual education, but did not make any attempt to preemptively address the public outcry, especially surrounding misinformation that students would be taught Ebonics in school. The superintendent of the district stated that it was not the district's intention to seek federal funding except through Title I, which provides money to schools serving low-income students. Rather, they were trying to use the tools they could think of to address the school system's failure to educate these students (Baugh 2001). As one Oakland school teacher stated,

> Our mission was and continues to be: embrace and respect Ebonics, the home language of many of our students, and use strategies that will move them to a competency level in English. We never had, nor do we now have, any intention of teaching the home language to students. They come to us speaking the language. (Perry and Delpit 1998)

If this kind of language had been used in the Oakland resolution itself, perhaps it would have been less controversial.

The judge's opinion in the Ann Arbor decision was worded far more carefully, which was probably in part due to the limited nature of the lawsuit. The aim of the suit was not to affect language policy anywhere but at Martin Luther King Jr. Elementary School, and the plaintiffs were suing for better *access* to Standard American English rather than *more* readily available Black English. Based on the writing of the Oakland teacher in Perry and Delpit (1998), the

techniques actually used in the district were designed to provide students with access to Standard American English. The special planning required by court order in the Ann Arbor decision resulted in the teachers at Martin Luther King Jr. Elementary School having access to similar techniques (Freeman 1982).

1.3.4 Cultural Issues for Modern Teachers

Into this historical context comes the modern situation of teachers across the country using a variety of techniques to approach African American Vernacular English in the classroom. In spelling as much as other components of literacy instruction, a conscious shift from AAVE to SAE should prove useful to students attempting to use conventional orthography. In a classroom with a white, SAE-speaking teacher and African American, AAVE-speaking students, though, the issue may be more sensitive.

In the next section, I will discuss the characteristic features of AAVE phonology. These features mean that conventional English spelling does not have close ties with AAVE as it does with SAE, so AAVE speakers should have more trouble with phonetic spellings related to these features.

1.4 African American Vernacular English Phonology

Labov (1972) identifies four main characteristics of AAVE phonology: r-lessness, l-lessness, simplification of consonant clusters at the end of the word, and weakening of final consonants. Other characteristics include the final fricative /ɵ/ becoming /f/ (Sligh 2003), dropped final consonants /t/ and /d/, reduced or eliminated distinction between lax front and lax mid vowels /ɪ/ and /ɛ/ before a nasal, heavy use of *-in* instead of *-ing*, and the "*I'ma*" future-

intentional[4] (Wyatt 2001). The Labov characteristics provide a solid set of guidelines to track usage of AAVE in both verbal and written communication. The Sligh and Wyatt characteristics are also useful to keep in mind, because while *-ing / -in* variation and dropped final /t/ and /d/ can occur in SAE speakers as well, they are much more common in AAVE. Most sources stated that while AAVE has a fairly uniform grammar, the phonology varies based on a number of factors, including region. Researchers have also noticed that some subjects as young as five years old style-shift between AAVE and SAE depending on the topic of conversation, communicative intent, and conversational partner (Wyatt 2001, Baugh 2000).

In writing samples of first grade students who speak AAVE, expected characteristics include dropped unstressed syllables, a missing "g" in *-ing*, and simplified final consonant clusters. Additionally, because the students' spelling skills are still developing, their application of spelling strategies will likely cause unusual misspellings, and the strategies may be inconsistently applied. For example, the same student might spell "throw" as <throe> and <throw>, and possibly <throwe>, depending on which strategy is being applied (the first spelling would be due to a misapplication of the silent "e" rule, the second spelling would be either word-specific knowledge or sounding out the word, and the third spelling would be a combination of both). These spellings could potentially happen within the same writing sample.

Broadly, final syllables containing consonant clusters might be dropped entirely for the same reason.The *pin-pen* merger will show up in the writing samples. Written words will sometimes be r-less or l-less to match AAVE phonology. At other times, however, because of the nature of Writing time, it could be expected that the teacher's SAE phonology would play a role

[4] If the participant does not choose this form, and instead uses "I'm gonna," as one might expect in SAE, this would obviously have an effect on spelling. Even with the AAVE form, deciding where to put spaces in the word might pose some interesting challenges for the student.

in determining the spellings chosen by the students. For example, if the student has the pin-pen merger, he might pronounce both *pin* and *pen* as /pɪn/, and likewise choose to spell both <pin> to match the vowel phoneme that most closely matches his pronunciation. if the teacher pronounces *pen* /pɛn/ and sounds it out for the student, the student might choose either <pen> or <pin> as potential spellings. The prediction here is that this merger will cause students to favor one vowel spelling (either <e> or <i>) to represent the vowel they produce as a result of the pin-pen merger.

1.5 Literacy

1.5.1 Spelling strategies for SAE speakers (and AAVE speakers)

Williams et al. (2009) provide a set of strategies for spelling based on the model of "word study," where students practice identifying patterns in words rather than simply memorizing:

1. Say the word slowly and listen for the sounds you hear (initial sound, middle sound, final sound)
2. Say the word slowly and listen for any parts you know (br in brought)
3. Clap the syllables and write letters for each part you hear
4. Use words you know (fun and silly to funny)
5. Use names you know (William to will)
6. Use a rhyming word (rain to train)
7. Use word families to spell related words
8. Think about different spelling patterns that can spell the sound you hear (out vs. down)
9. Try it on a practice page and see if it looks right

10. Use a resource in the classroom (chart, word wall, book, dictionary, calendar, words you've already written)

The most easily implemented strategy is first on the list. For the purposes of research, I assume that strategies 1-3 will result in normal phonetic errors, whereas strategies 4-8 would result in errors that are not directly transcriptions of the phonemes heard in the words, and strategies 9-10 might result in conventionally spelled words. Strategies 6-10 also work well with Gentry's description of developmentally correct spellers, who are able to consider multiple alternate spellings of the same phoneme and pick the one that "looks right", as well as using learned spelling patterns and a large corpus of learned words (Gentry 1982:198).

Leak (1996) approached spelling from the student perspective. She conducted research as a participant-observer, observing students and helping them through the spelling process in a classroom where invented spellings were encouraged. She also interviewed six focal students in November and April to learn about the strategies they reported using to determine correct spellings in three different tasks. For the first task, the student was presented with a picture and was asked to write that word on a notecard. For the second task, the student was presented with either a correct or incorrect spelling of the word in the picture, and asked whether the word was spelled correctly. For the third task, the student was asked to choose the correct spelling of the word that represented the picture from four options. In each task, she asked why the student responded as they did. She found that spelling by analogy (using known words like 'pen' to spell new words like 'pencil'); remembering/visualizing/experiencing spelling a word; learning or seeing a spelling; applying word-specific knowledge that could not be generalized out; spelling rules, like the silent *e*; sounding out; and known phoneme-grapheme correspondences were all strategies that students reported using in their interviews. Sounding out was the most common

strategy, especially in November (56.4% of responses used this reasoning in November, and 38.4% in April). A similar list of strategies was reported in Dahl et al. (2003), where researchers conferenced with students in kindergarten through fourth grade and students in sixth grade about how they spelled. The specific list provided by Dahl et al. included visualizing, making connections to known patterns and words, focusing on sounds, reflecting, and combining information.[5]

The researchers in Dahl et al. (2003) and Leak (1996) both asked students to report their own strategies, and then the researchers put those strategies into categories. Other researchers, such as Ehri (1997), did not ask for student input in determining which strategies were used. Remarkably, the list of strategies is fairly similar. Ehri (1997:241) suggests that students spell unfamiliar words either by invention or analogy, with invention sources including phonological awareness (segmentation), phoneme-grapheme units, letter patterns, consolidated units, morphographs (roots, affixes), and partial memory for correct letters[6]. While researchers had to decide how to categorize the strategies reported by students in Dahl et al. (2003) and Leak (1996), as well as their own understanding of possible sources of spelling knowledge in Ehri (1997), the fact that students are able to understand and report their own processes for spelling to the point where their list of strategies is so complete suggests that this list is probably valid as a

[5] Reflecting, as defined by Dahl et al., includes strategies of verifying the spelling, correcting errors, and checking with resources. This is a good reminder of resources that might be available around the classroom to aid the students. Whenever a student misspells a word that is in the print on the classroom walls, he/she could be showing either that writing fluency is more important than accuracy, or that the resources are undervalued in instructional time. Combining information involves using multiple strategies and/or using a strategy routine.

[6] Given a word that the student has seen before, *partial* memory for correct letters would allow the student to make unusual leaps to get closer to the correct spelling. One example from the dataset is <somthing> for *something*, which would have been spelled phonetically <sumthing> or by analogy <something>. Choosing the *o* means that the student has probably seen the word before, and recognizes that the word is supposed to have an *o,* but the student is unable to remember enough letters to reproduce the correct spelling in its entirety.

tool for students, teachers, and researchers alike. Ehri cites Simon & Simon (1990), suggesting that partial memory for correct spellings makes fourth grade students better spellers than a computer programmed with a list of spelling rules. Leak's categories of spelling strategies mean that once a student can identify specifically where he/she gained word-specific knowledge, the strategy's category changes, so word-specific knowledge became a less-popular strategy as the year progressed.[7] However, broadly, the three categories of strategies that the students use are having experience with the word and remembering some or all of its letters, using analogy to recognize rhyming words or parts of words, and sounding out words. For the sake of determining the effect of dialect on orthography, sounding out and rhyming will be the most valuable strategies to examine.

1.5.2 Teaching writing and writing fluency

In the classroom that is the subject of my research, phonetic spelling is emphasized. When the teacher and student conference about the student's work, as long each word shows evidence of phonetic spelling, mistakes are not corrected. The students are told to "tap out" (sound out) words that they do not already know how to spell. In a position paper, the National Council of Teachers of English write,

> Writers need an image in their minds of conventional grammar, spelling, and punctuation in order to compare what is already on the page to an ideal of

[7] Essentially, if a student said, "I don't know where I saw/heard it, but I know that this is how to spell the word," then Leak categorized the strategy as word-specific knowledge. If the student (probably later in the year) said, "I learned how to spell this word in class," Leak categorized the strategy as prior experience with the word. Even though both cases involve the students *remembering* a spelling and (accurately or inaccurately) reproducing it, Leak considered the strategies to be different enough to report separately. While this may have been useful for the point she was trying to make, my sense is that both strategies are used when students remember the words. A category of strategies that represented this similarity would have been useful in accurately representing the reports of students.

> correctness. They also need to be aware of stylistic options that will produce the most desirable impression on their readers. All of the dimensions of editing are motivated by a concern for an audience. (NCTE)

In Leak (1996), the issue of writing fluency is addressed by encouraging invented spelling as a way to continue writing: "Inventing spellings allows them to get on with what they want to write rather than getting hung up on a certain word, and it also encourages them to think about spelling." It seems, then, that to some extent invented spellings could be motivated by audience as well. If an emphasis is placed on creative vocabulary choice and the student wants to be able to incorporate this into his/her writing, some level of invented spelling will probably be necessary. One concern that might arise from the Leak case would be if the students were unable to determine what word they were originally trying to spell when they go back for editing. One crucial audience for writing is the student him/herself.

The target classroom navigates the distinction between phonetic and conventional spelling by having "publishing days." On these days, students go back to work that they were proud of and produce clean copies with conventional spelling, grammar, and punctuation. These are the only times when the teacher will spell words correctly for students to copy. This practice is in line with Gentry's claim that the primary teacher should encourage fluency and productive writing to allow for natural spelling development (1982). Before the teacher sees student work on publishing day, students are asked to review a partner's work and highlight misspellings. Because the peer reviewers are also students with limited conventional spelling skills, many of the highlighted words are recognized as incorrect either because they are available on the word wall or in the student's writing dictionary, or because they are spelled inconsistently with the

rules that have been presented. This means that some highlighted words may, in fact, be spelled conventionally.

1.5.3 What spelling mistakes to expect from first graders

In Gentry's model, most of the students should be in the stage of transitional spelling. Features of this stage include basic understanding of English orthographic rules, including use of the silent *e*, vowels in every syllable, presence of nasal consonants, vowel digraphs, and inflectional endings (-s, -ed, -ing); morphological and visual spelling strategies beginning to replace purely phonetic strategies; misspellings in which all letters are present in a word, but letters have been transposed; incomplete ability to use the environment of each letter/sound to decide how to spell it; more correctly spelled words than in earlier stages (1982:196-197). Gentry notes in a later article (2000:322) that writers in the phonetic stage of spelling, which is where some of the students might still be, could have trouble recognizing preconsonantal nasals, which would result in 'stand' being spelled <stad>, for example.

1.5.4 International Examples

One chapter of *Understanding Literacy Development* (ed. McKeough 2006) creates a bridge between literacy and linguistics. The chapter discusses phonemic awareness, and suggests that teachers should practice tasks where students recognize individual phonemes in their early childhood classrooms. The author cites studies conducted in Russia, Oxford, and Scandinavia which show that students who are more aware of rhyming, consonant sounds, and vowel sounds as preschoolers are more likely to be prepared to read in elementary school (Nicholson 2006). Nicholson also suggests starting to teach phonemic awareness with 26 phonemes that map on to letters of the alphabet, because it should then be easier to teach phoneme-grapheme correspondence.

Aaron & Joshi (2006) studied English spelling in groups of students with varying exposure to written and spoken English. Tamil is the language of the state of Tamil Nadu in India. In English-medium classrooms, students in grade six and above are exposed to written English consistently throughout the school day through English textbooks, but spoken instruction still takes place in Tamil. Tamil-medium classrooms have all subject matter addressed in written and spoken Tamil, and they have an English language class starting in grade six. This study examined the differences between the spelling errors made by students from American classrooms, Tamil-medium Indian classrooms, and English-medium Indian classrooms. The researchers wanted to determine the effect of exposure to written and spoken language on ability to spell words in that language. One finding was that "when phonology is not accessible for spelling [in both of the Indian classrooms], children tend to make morphemic substitutions. This may be an explanation of the overproduction of morphemic errors by the Indian children" (Aaron & Joshi 2006:567). Morphemic errors were defined as the substitution of a real word (of similar sound, e.g. 'once' for 'ones') for the target word in a dictation task. It is possible that similar errors might occur with AAVE speakers, because given spelling strategies of sounding out the word and consulting a list of sight words, an AAVE speaker could sound out the target word in a way that would make it look like it fit the spelling of another word (e.g., again, when sounding out *when* → /wɪn/, if <win> is on the list of sight words, it could be selected as the appropriate choice even if <when> is also available on the list).

1.6 Previous Studies on AAVE and Literacy

Based on previous studies of AAVE and literacy, it can be expected that the students' spoken varieties of English will have an effect on their written English. Sligh & Conners (2003) used phoneme-deletion tasks to examine how seven- and eight-year-old SAE and AAVE

speakers treat word-initial and word-final consonants and consonant clusters. The main study involved the participant listening to a nonsense word, then being asked to remove a phoneme from that nonword and say the new word. For example, the researcher might say to the participant, "Say 'flist' without the /f/". The participant would be expected to say "list" in response. The phoneme-deletion tasks included word-initial/outside deletions (e.g., 'prain' −/p/ → 'rain'), word-initial/inside deletions (e.g., 'skad' −/k/ → 'sad'), word-final/outside deletions (e.g., 'starp' −/p/ → 'star') , and word-final/inside deletions (e.g., 'hisp' −/s/ →'hip'). In the study, Sligh & Conners found that AAVE speakers performed better at word-initial deletion tasks than they did at word-final deletion tasks or than SAE speakers did at word-initial deletion tasks. Similarly, SAE speakers performed better at word-final deletion tasks than they did at word-initial deletion tasks or did AAVE speakers on word-final deletion tasks. More importantly for the current research, AAVE speakers struggled with word-final phoneme deletion tasks where they "were required to analyze consonant clusters that, in their own speech, tend to be simplified" (Sligh & Conners 2003:222). Also, AAVE speakers had higher overall scores than SAE speakers. They were much better than SAE speakers at word-initial deletion tasks, and only slightly worse (although the difference was still statistically significant) at word-final deletion tasks. Sligh & Conners attribute this to "AAVE speakers develop[ing] exceptionally good phonological processing skills, due to their experience with two dialects in which there are phonological differences" (Sligh & Conners 2003:222).

Treiman et al. (1993) describes a series of studies conducted on early elementary students who presumably spoke SAE, although no mention is given to the students' dialects. In the studies, participants were asked to spell mono- and disyllabic nonwords. The researchers examined where errors were made in spelling the nonwords. In order to decide whether spelling

errors had occurred, the researchers accepted the most common spellings of each phoneme in English. They ignored silent *e* at the end of words as well as the order of the letters. While not explicitly stated in the study, their reasoning for accepting any letter order was probably so that they could focus on whether every phoneme had been recognized instead of trying to determine the cause of letter order irregularities.[8] They acknowledge that by accepting other spellings (particularly of vowels) as appropriate, the children's scores might have gone up overall, but they were more concerned with how syllable stress changed accurate phoneme identification, so a consistent system was more important than a system that would capture all possible spelling variations.[9] They had posed two hypotheses to explain the ways spelling mistakes might occur. First, the intrinsic difficulty hypothesis would suggest that some phoneme-grapheme correspondences are simply harder to spell than others, and that no matter where the phoneme is placed in the word, the speller will still have trouble. The other hypothesis, the context hypothesis, stated that phonemes were easier or harder to spell depending on their position within the words. For monosyllabic nonwords, they found that the medial vowel phoneme was the most difficult to spell, followed by the final consonant phoneme and then the initial consonant phoneme. For disyllabic nonwords, the context hypothesis did not hold as strongly,

[8] Sometimes, as students are learning to spell, they hear all of the phonemes in a word and can repeat it back correctly, but they still put the consonants out of order. From the dataset of the current study, "learn" was spelled <leanr> by the student. The student in question clearly had previous experience with the word learn in order to spell the vowel phoneme <ea>, but the consonants are transposed. He could hear the /r/ and /n/ phonemes, and chose to put them in the wrong order.

[9] Treiman (1992) shows how this might work: substitutions such as <bran> for 'brain' would be accepted because sometimes <a> represents /ai/ (e.g. 'baby'), whereas <home> for 'hope' would not be accepted because <p> never represents /m/. The problem here is that if the researchers opened up acceptable spellings to every known possibility, some spellings not representative of phoneme-grapheme correspondence awareness might be deemed acceptable.

but the researchers still found that "syllable-final consonants are more difficult to spell than syllable-initial consonants" (Treiman et al. 1993: 472).

These effects could be magnified in AAVE speakers. If AAVE speakers are more aware of word-initial consonant phonemes as determined by Sligh & Conners (2003), and students in general find syllable-initial consonants easier to spell (Treiman et al. 1993), then the lower phonemic awareness that AAVE speakers have for medial consonants and final consonants could prove very challenging.

Terry et al. (2010) suggests that Non-Mainstream American English [10] (NMAE) speakers who consistently use features of their variety have more opportunities to examine differences between their speech and the speech of SAE speakers than speakers who frequently use features of SAE. Furthermore, since AAVE is stigmatized more than Southern American English (SoAE), AAVE speakers may be at an advantage in terms of linguistic awareness because the differences between AAVE and SAE may have been pointed out to them, whereas for students in the Southern United States, SoAE might not merit the same recognition (Terry et al. 2010). In Terry's study the race and dialect of the teachers is not mentioned, so it is unclear to what extent these factors might have influenced the linguistic awareness of the students. If, for example, all of the teachers in a low socioeconomic status (SES), predominantly African American school were also African American speakers of AAVE, the students in that school would probably have lower linguistic awareness than if the teachers spoke SAE or another variety of English.

[10] In this case meant to include Southern American English and African American Vernacular English

2. Study

2.1 Description of Context

The school where this research takes place is a charter school in Philadelphia. It was intentionally developed in a neighborhood of the city where the population is primarily African American and of low socioeconomic status. The school is open to all students served by the city's school district, but staff members canvas the surrounding area to encourage local parents to enter the lottery. This school serves primarily students who are eligible for free- and reduced-price lunch (FARL)--over 84 percent of their students are eligible for this program, as compared to the school district's 68 percent. According to federal guidelines, free lunches are available through the National School Lunch Program to families earning at or below 130% of poverty-level income, and reduced-price lunches to families earning at or below 185% of the poverty line (Paradis 2011). This data means that most of the students served by the charter network can be considered to be of low SES. Terry et al. (2010) considers schools with over 50% FARL to be low SES schools.

The school itself is fairly new and small--it will eventually serve students in kindergarten through fourth grade, but at the time of the study it only has students in kindergarten and first grade. There are three classrooms per grade and 25 students per classroom. The school building itself looks bright, clean, and new. The walls have been hand-painted with inspirational sayings, and displays of student work are prominent in the hallways. In first grade, there are six female teachers who co-teach the three classes. Five out of the six are caucasian, and the remaining teacher is African-American. The classroom studied is co-taught by a White woman from Virginia (Ms. L) and an African American woman from Philadelphia (Ms. C). For Writing, Ms. L is the only teacher in the classroom.

2.2 Method

2.2.1 Participants

Twenty-five students were eligible for participation in this study because they were students in the researched classroom. Their teacher, Ms. L, was also a subject. All of the students live within Philadelphia. If they had not gotten in to a charter school, most if not all of them would have attended their neighborhood public school within the district. All of the students in this class are African American and at least six years old at the time of the study.

2.2.2 Procedure

The study was based on observation of the students and observation and interview of the teacher. During Reading on the primary data collection day, the teacher read the book *The Napping House* to the students and asked them to write down what happened in the story. I documented everything they wrote, whether it was conventionally spelled or not.

During Writing, the teacher circulated the room offering advice and feedback to the students. She stopped to speak with students at all stages of the writing process. Some students did not yet have anything written down, others had one or two incomplete sentences, and some considered their stories to be finished when she comes to meet with them. For the purpose of examining spelling, I documented the written work of students who were in the latter two stages of the writing process. Throughout the school day, students' speech was selectively transcribed into IPA, especially when it was a specific example or counterexample of AAVE phonology.

Another component of the study was a two-part interview with Ms. L. The first section of the interview was a sociolinguistic interview composed of an conversation to elicit casual speech and a word list to examine her careful pronunciation might shape her students' spelling. Data gathered in the content interview included which spelling strategies have been taught, whether

she modified spelling advice depending on the reading skill of the student she is coaching, and what her experience has been of the students' AAVE and how she addresses that in class. The prompts for her interviews are listed in the appendix.

2.2.3 Sources of Error/Minimizing Error

One major concern in this research is that I am a white female researcher introduced as a teacher to the students. Based on Wyatt (2001), I should expect that the students will choose to use less AAVE around their teacher and me than they would amongst themselves. In order to determine which students were AAVE speakers, I observed conversations they had during their free time and when they were participating in less structured activities. I hypothesized that students who displayed strong AAVE characteristics[11] in informal speech might lose some of those characteristics in the more careful speech associated with sounding out words, but that the features would still be present to some extent even in careful speech.[12]

Another concern in the data collection phase is that I was unable to collect audio recordings of the students. This may have caused errors in transcription because all judgments about what sounds the students were producing had to be made at the time of utterance. To minimize the effect of this limitation, I chose to select salient words to transcribe in IPA instead of attempting to perfectly transcribe entire conversations at once. I also practiced transcribing conversations that I overheard so that when I was collecting data, I would be better able to

[11] Wyatt's (2001) definition of moderate to heave AAVE feature use is using one or more of AAVE grammar, phonology, stress/intonation patterns, and/or lexical items in at least 40% of conversational turns. While this specific level of data is not available because of the selective transcription of students' speech, I was able to determine which students used AAVE features more than half of the time.

[12] Guiding this thinking was Labov's 1966 study of rhotacization in New York department stores. Some students should have no AAVE features in casual *or* careful speech, some should have more AAVE features in casual speech, and some might display strong AAVE features in casual *and* careful speech.

capture my judgments quickly. One source of error (and incomplete data) was that the tokens I collected did not always match the written work I documented, so I could use the speech tokens to develop an idea of the speaker's AAVE use, and then determine whether that matched the spelling I saw, instead of being able to compare specific tokens of speech and writing.

2.2.3 Results

2.2.3.1 Students

In total, 495 written words were collected and analyzed from the students' provided and observed writing samples, and 50 tokens were transcribed into IPA. In the writing samples, 133 words were misspelled. Of these, six were indecipherable[13] and not used for analysis. The remaining 127 words made up 25.6% of the dataset. Within these words, 60 errors were misspellings involving vowels, 72 involving consonants, and 22 involving syllables (such as transposition in two letter words, missing unstressed syllables, and syllables without vowels). The number of vowel, consonant, and syllable errors is more than 127 because some words had more than one error.

The errors were categorized by type as well, with some words receiving more than one categorization. Error type categories were:

1. past -ed
2. r-less
3. l-less
4. unstressed syllable (general)
5. unstressed syllable (-ing)

[13] The words that posed a problem for analysis were 'totl', 'Chelonpc', 'loplepth', 'brd', 'ch', and a word that was not decipherable due to the handwriting of the student, but looked like 'chi_ _r'. Other words were decipherable using a combination of phonics and context.

6. preconsonantal nasal
7. vowel team
8. single vowel wrong (pin-pen)
9. single vowel wrong (other)
10. doubled consonant
11. letter name sound
12. missing vowel in syllable
13. digraph
14. sneaky e
15. <th>→<f>
16. transposition
17. other (blend)
18. other (miscellaneous)
19. final consonant

Of these error categories, (9) was the most common, with 25 errors. There were 6 vowel errors due to pin-pen phonology, so almost 20% of single-vowel errors and 10% of all vowel errors were related to the pin-pen merger. Vowel team errors were also common, with 16 errors, or 12%. Final consonant errors were the only other error type with over 10% of the sample, with 14 errors, or 10.5%. By contrast, there were only five instances of initial-consonant misspellings, including two misspellings by the same student of 'phone' <fone>, and three instances of confusion over whether <k> or <c> should represent /k/. Categories (4-5 combined) and (11) each had 11 errors. Interestingly, of the unstressed syllable errors, only 2 involved syllables other than -ing.

The two most commonly misspelled words were *sleeping* and *granny*. *Sleeping* was attempted 10 times in the writing samples, and only spelled correctly twice. Of the eight incorrect attempts, four dropped the unstressed -ing to form <sleep>, two had errors in the first syllable that created <sleiping> and <speepping>, and two spelled the word <slebn>. In this we see a range of strategies and issues. The word *sleeping* is not simple to spell--it has a word-initial blend (*sl*), a medial vowel team (*ee*), and a final welded sound (*ing*). Still, on the rules checklist for the more advanced half of the class, the vowel team and -ing are both available. Given a list of rules that says, to "make the long E sound, use EE or EA or E_E", an expected spelling that was not in the dataset is <sleaping>.

The <sleep> and <slebn> spellings are the most interesting from the standpoint of AAVE influence. They come from different points on the spectrum of spelling development--the <sleep> spelling is much more advanced than the <slebn> spelling, because <slebn> misrepresents a consonant and uses letter-name sounds (<e> representing /i/, <n> representing /ɪn/ or /iŋ/). In the first case <sleep>, the students may have been representing every phoneme they heard, and the -ing had simply dropped from their pronunciation entirely, or the second vowel sound might not have been loud enough in their awareness to trigger the spelling of another syllable. That is, even if they were saying /slipɪŋ/, the way that the students decide which sounds to write is by tapping their thumbs to their fingers each time they hear a new sound. If the second syllable is too quiet as they're whispering these sounds to themselves, it might not register as a new phoneme that needs to be included.

Collecting data on the students' speech, I heard numerous examples of dropped final consonants, including -d and -t, as well as -in instead of -ing. Two students pronounced

'handstand' without the final /d/, one student said /æstɪn/ for 'asking', and the pronunciation /wi dɪʔə/ resulted in the spelling <we dite> for 'we didn't'.

Perhaps the most obvious examples of partial memory for correct spellings both came from the same student. He spelled *learn* <leanr> and *hokie* (the classroom mascot) <hioke>. Neither of these misspellings are necessarily phonetically motivated, because choosing *ear* to make the /ɜ/ sound is not the most obvious decision. <Hioke> is an even more interesting example, because *Hokie* is in print around the classroom and school, and is an everyday word for these students. If the student had spelled it <hoke> or <hokee>, the explanation could have been completely phonetic, but the medial <i> could only have come from remembering the word visually. Two other instances of transposition occurred, in <sterts> for *sisters* and <no> for *on*, but neither showed an especially strong visual connection to the original word as much as simply confusing the order of the phonemes.

Data on vowel spellings was inconclusive overall. If a long vowel was present in the student's pronunciation of the word, it tended to be represented in the spelling, but 12% of errors were found in vowel teams, and 21% of errors involved the misspelling of a single vowel. Short vowels were especially confusing for students (30 errors). Two students attempted to spell *watch*, and both spelled it <woch> because they heard the short *o* sound and the digraph *ch*. *Was,* a sight word, was attempted 15 times and misspelled as <wos> twice. *Everybody* was misspelled in every syllable, with three attempts: <avrebotey>, <erebety>, and <everybodee>. While the third spelling is acceptable at this stage because it follows the rules and represents every phoneme, the other two spellings have vowel identification errors. The first spelling misrepresents /ɛ/ as <a>, which suggests that the student heard the short *a* sound /æ/ instead of the short *e* sound. The second could easily be indicative of a the pronunciation /ɛɹibɛɾi/.

The main problem in drawing strong conclusions about vowel errors was that 24% of vowel errors were not phonetically motivated (regardless of SAE/AAVE phonology). Examples included <wos> for 'was', <shot> for 'shut', and <drep> for 'drip'. Often, the students were appropriately spelling what they heard, but almost one quarter of the time, they were unable to pick the written vowel that might represent the vowel sound they heard. Since I do not have the option of hearing the rest of the words spoken by the individual students, I have to assume that most of the time, if I can determine what a word is by sounding it out, the student was accurately representing what he heard himself say. This is also broad, so 76% is probably an overrepresentation of phonetically-motivated vowel errors.

Of the 27 single-vowel errors, only 5 were pin-pen merger related, but these examples were reflective of the expected and documented phonology. *Then* was spelled <thin> twice by different students, *drink* was spelled <drec> by one student, *nothing* was spelled <notheno> by one student, and gingerbread was spelled <genger bread> by one more advanced student. The two students who spelled <thin> were among the heaviest users of AAVE features--I did not hear any conversational turns when they spoke without using AAVE features. <Drec> was an attempt made by one of the weaker spellers in the class (notice the missing preconsonantal nasal), but that vowel choice likely represents his speech. For reference, his freewrite was one of the most AAVE-heavy writing samples, and it closely matched a phonetic transcription where all letters make letter-name sounds. (1) is a transcription of the student's work, (2) is the most likely meaning of the work. Underlined words are not clear from context. Punctuation and capitalization are consistent with the original for both versions.

(1) on crism I am gon to duw nufin! Isep pla my gam Id drec mic in et cues in woch crtos in pla in the sno

(2) on christmas I am going to do nothing! Except play my game And drink milk and eat cookies and watch cartoons and play in the snow

This writing sample displays l-lessness (<mic>), dropped unstressed syllables (<crism>), dropped word-final /d/ and /t/ (<in> for 'and', <isep> for 'except'), and *-in* for *-ing* (<gon>, <nufin>). While the student is not an advanced speller, he appears to faithfully represent his phonemic awareness without transposing letters, so I think it is still a useful sample.

By contrast, one of the most advanced spellers in the class (who spelled 'gingerbread' <genger bread>) wrote about her Christmas plans with sentence (3):

(3) When i celebrate chrismas me and my mom deckarate the tree and make genger bread man cookies and open up our gifts.

The misspellings are entirely transparent to a native SAE speaker, and very clearly follow the rules she has been given and her knowledge of conventional English orthography.

The phoneme-grapheme correspondence for these students was much stronger in their production of consonants and consonant clusters. Even when consonants and blends were incorrectly spelled, most errors made sense given the observed AAVE phonology. Only seven attempts had errors of either preconsonantal nasal omissions or blend transpositions (both of which are indicators of lower spelling development), but 21.8% of attempts with errors had consonant phoneme misspellings due to AAVE phonology, including -in instead of -ing (spelled <n>, <en>, or <in>), dropped final -d and -t, no final -s when it would be inconsistent with AAVE grammar, final <f> instead of <th>, and l-less spellings. R-less, l-less, and <th>→<f> errors were among the least common errors in the dataset, involving only one to three errors each. One of the most interesting cases of AAVE phonology affecting spelling was the variation in spelling 'child'. out of 10 attempts, only 3 were successful. Two of these spellings were l-less:

<chiod> and <chod>. The first spelling may have been representative of an inability to say /l/ in that context, but the second spelling suggests a monophthongal /ɑ/ to replace the SAE /ɑɪ/, in addition to l-lessness. Only one instance of r-lessness was documented in the written dataset.

2.2.3.2 Teacher - Linguistic Profile

Ms. L lived in a large city in eastern Virginia until she went to college in western Virginia, at a college where approximately 2 out of 3 students are residents of Virginia. She does not have a noticeable Southern accent, although she does have a partial pin-pen merger. She was presented with a word list partially composed of (4)-(9), all of which were used to test the pin-pen merger. The full list is in the appendix.

(4) kin

(5) ken

(6) pin

(7) pen

(8) when

(9) then

(10) swimming

Of these, (4) and (5) were indistinguishable from [kɛn] out of context, (6) and (7) were subtly distinct as [pɪn] and [pɛn], and (8) and (9) were both pronounced with an [ɛ] vowel. In (10), the /ɪ/ phoneme was not quite realized as [ɛ], but the vowel was slightly lower and backed more than usual in other instances of [ɪ]. During the content interview, I asked about a student who spelled 'them' <thim>, and I made the distinction between /thɪm/ and /thɛm/ verbally without spelling either. She recognized the difference between the /ɪ/ and /ɛ/ phonemes in this instance and the spellings associated with each. If /thɪm/ and /thɛm/ were both English lexemes

(and thus minimal pairs) and Ms. L had been unable to distinguish between the two, then I would be able to definitively say that she has the pin-pen merger.

Also on the word list were *cot* and *caught,* and Ms. L's distinct pronunciations of the medial vowel phonemes mean that she does not have the cot-caught merger, as expected. Unlike her students, she does not transpose the /k/ and /s/ phonemes in *ask*, and she does not drop word-final /d/ or /t/ in relatively careful speech.

2.2.3.3 Teacher - Attitudes, Experience of Students, and Educational Practice

The school's language policy is "school language - home language". In the interview with Ms. L, she described a conversation that she might have with a student over AAVE grammar use as "When you're at home...that's the way you talk with your family. When you're at school there's a certain way we say things, and the way that we say it is like *this*." She stated that there would be "cultural implications" for correcting speech, but that if a student's pronunciation was affecting his conventional spelling, she tells the student to watch and listen to how she says the word. For example, for the word 'with', the visual/physical signal for the <th> digraph is having the tongue between the teeth, but the AAVE pronunciation of the word does not have that signal. To resolve this problem, she asks the student to look at her mouth while she says the word, and tell her what they notice. Next, she asks him to try saying the word the same way, and tells the student to try spelling the word again. This strategy is more effective for highly visible phonemes, which are all consonants. For vowel differentiation, she says that exposure to the word in print through reading is especially important.

Ms. L considers all of her students to be speakers of AAVE, and notes that many of her students come into school with a language deficit. Grade-wide, she estimates that one third of the students are able to understand acquire new words normally and produce sentences of varied

length, one third do not have strong enough language skills to be successful in first grade, and one third qualify for speech-language therapy services because their language skills are so limited.[14] When asked, "Do you hear any shift between when the students are talking to you and when they're talking to each other," she answered, "Surprisingly, at this age, no, not yet..."

2.2.4 Discussion

I was expecting to get more concrete vowel data from the students, in which case the sociolinguistic interview data with Ms. L would have been more useful for contrast. The information about consonants was still useful, though, because it confirmed that Ms. L's SAE consonant production was closer to conventional spelling than her students' AAVE production. This held in cases of -ing/-in variation, where the students were less likely to attempt to spell the unstressed final syllable at all, and few accurately recognized all of the phonemes necessary to produce the conventionally spelled <ing>. I would have expected to see more r-lessness and l-lessness in both the spoken and written data.

It might seem that the conclusion of Sligh & Conners (2003), that AAVE speakers are better able to manipulate phonemes, is in conflict with the current study. I would argue that the environments were not the same. For Sligh & Conners, the child was asked to repeat the original word back until he pronounced all of the phonemes (saying /flis/ instead of /flist/, for example, would not be acceptable to Sligh & Conners). This is a similar situation to when Ms. L models a pronunciation for a student who is having trouble. Even though all of the students in her word study group naturally wrote <the storm stop> to match their grammar, when Ms. L repeated 'the storm stops' and emphasized the word-final /s/ in 'stops', all of the students were able to correct

[14] One concrete example of this kind of vocabulary issue is when a student tried to throw away a piece of trash, but returned to the classroom with the piece of garbage saying that the trash was 'empty'. The trash can was full, but the student did not appear to have the vocabulary to communicate this idea.

their work. Treiman et al. (1993) is especially relevant in discussing the results of the current study. Their finding that medial vowels were the hardest to spell held here to the point that the data on vowel sounds was almost unusable.

From Ms. L's interview, I did not expect that her students would not yet be style-shifting between AAVE and SAE. One possibility is that the students' exposure to SAE has been so limited up to this point that they are only starting to develop an awareness of when and how to shift. This might also explain the "language deficit" to which Ms. L referred. Within the school system, "most tests in the field of speech-language pathology tend to over-identify or under-identify AA[V]E speakers for speech therapy services because they are based exclusively on GAE [SAE] grammar frameworks with little or no accommodation for dialect differences" (Wyatt 2001:270). This was definitely a reminder of the Oakland Ebonics Controversy and the Ann Arbor Decision, because language services need to be tailored to the population they serve. Ms. L did mention the cultural implications of correcting students' speech, and that awareness is important, but accurately identifying correct speech in AAVE is key for school systems that serve large African American populations to be able to provide targeted language services and therapy to the students who need them.

My hypothesis that heavy AAVE users would lose some (but not all) features of AAVE in the careful speech associated with sounding out words was inconclusive. I did not collect enough tokens of AAVE speech that were also represented in the written dataset, and there was only one student in the classroom who was not a heavy AAVE user. From a spelling perspective, considering the limited occurrence of r-less and l-less words, the students who needed to sound out the words probably lost r-less and l-less features of their speech. Overall, the writing samples

were heavily influenced by AAVE, but students who were able to apply more rules to their spelling were more successful in creating readable written work.

Going back to Gentry's (1982) model, the students should be in the developmental stage of spelling where they recognize inflectional endings, and many of the errors from the dataset are found in the endings. To this end, only four out of eleven -ing errors were due to -ing deletion, and the remaining seven were syllables with an optional vowel + <n> (and in one case, an <o> after the <n>). Two of nine -ed errors were -ed deletion, where seven were spelled <d> or <de>.

3. Conclusion and Pedagogical Recommendations

From this research come three recommendations for teachers working with young speakers of African American Vernacular English. First, being familiar enough with AAVE to anticipate phonological and grammatical divergence from SAE is important in order to take appropriate action. The "home language-school language" policy works well if both teachers and students can clearly define the features of each. Second, reading aloud to young AAVE speakers is crucial, especially favoring methods that allow the students to see the words and hear the speech simultaneously. Ideally, the same book would be read by an SAE speaker and an AAVE speaker so that the student could discover the phoneme-grapheme correspondences in both varieties. This might be a situation where more fluent young readers (perhaps students in second grade) could read to the children in first grade. Perhaps the familiarity of a young voice would help the younger students find the salient differences between sound and print. The third, and most specific, recommendation, is to include more -ing word forms in the -ing spelling rule. A chant of "i-n-g, ring, /ing/" is useful to students who have trouble once they hear the phonemes, but one problem faced by many students in this study was that they missed the second syllable entirely, or dropped the -g. If, every time the spelling chant happened, the students heard "i-n-g,

ring, /ing/! Nothing! Something! Anything! Learning!" and they were instructed to listen to the word-final -ing "welded sound," the relationship between the -ing and the SAE-specific phoneme-grapheme correspondence might be more clear.

Future research might look into the similarities and differences between SAE-speaking and AAVE-speaking students in their spelling of consonants in first grade or vowels in second grade. Comparing classrooms with teachers of different races and language backgrounds might also be interesting.

4. Appendix

4.1 Sociolinguistic Interview

4.1.1 Prompt List

- Tell me about growing up.
    - Were you in the suburbs or in a city?
    - Did you move around a lot or did you stay in one place?
    - What were your schools like?
- Where did you teach before here?
- Why did you end up at --school name--?
- Did you always know you wanted to be a teacher?
- When did you decide to become a teacher?
    - Tell me about your teacher that year.
- What's your favorite thing about teaching?
- What's your least favorite thing about teaching?
- If you had to be something else, what would you be?

4.1.2 Word List

- bad
- caught
- walking
- rapid
- pen
- ask
- sing
- cup
- talk
- kin
- when
- swimming
- cub

- then
- sock
- thing
- bat
- pin
- cot
- ken
- them
- writing
- played

4.2 Content Interview

- What phonics system do you use?
- What spelling strategies have the students learned so far?
- Do you have a list of words that you want all of your students to be able to spell at this point in the year?
- Do you change how you approach spelling with each student based on his/her reading level?
- When students pronounce words differently from you, how do you handle that in class?
- If their pronunciation is different and yours will get them closer to conventional spelling, do you take any additional steps?
- How would you characterize the speech of your students?
- Do you see any link between the race of your students and the way they speak?
- One of they things I'm looking at is whether the students speak African American Vernacular English and how that affects their spelling. Would you say that (most/many/some/none) of your students speak AAVE? Standard English? Something else? Does this change how you approach their spelling?
- Do you hear any shift between when the students are talking to you and when they are talking to each other? How would you describe that change?
- Is there anything else you would like to talk about?

4.3 Word Study Handout (words in parentheses denote pictures)

- Blends/digraphs
    - th (thumb)
    - ck (sock)
    - sh (ship)
    - ch (chin)
    - dr (dress)
    - tr (tree)
  - Things that happened in the past
    - put -ED at the end
  - Things that are happening right now
    - add -S
    - if the word ends in x, s, sh, or ch add -ES
  - Bossy R
    - ar (car)
    - or (horn)
  - Welded sounds
    - ang
    - ing
    - ong
    - ink
    - ild
    - ind
    - all
    - am
    - ung
    - ank
    - olt
    - old
    - ost
  - Make the long A sound

    - in the middle of a word, use AI or A_E
    - at the end of word, use AY
- Make the long E sound
    - use EE or EA or E_E
- Make the long O sound
    - use OA or O_E
- OI/OY
    - OI is in the middle of the word
    - OY is at the end of the word
- Sight words from one handout (lowest phonics group)
    - the
    - and
    - his
    - we
    - put
    - out
    - for
    - the
    - I
    - am
    - on
    - a
    - he
    - can
    - like
    - is
    - not
    - will
    - he
    - see

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