

# Third person singular *-s* and event marking in child African American English

Brandi L. Newkirk-Turner & Lisa Green

Jackson State University – University of Massachusetts at Amherst

This paper discusses 3rd person singular *-s* in the language of three- to six-year-old developing AAE speakers, in relation to early stages of zero 3rd person singular *-s* ( $\emptyset$ s) and overt *-s* marking. Data include a sentence repetition task and a story retell task. The speakers' 3rd person singular *-s* and  $\emptyset$ s marking are examined as a function of age, verb type, allomorph, and verb coordination. Analyses are presented to support the claim that the 3rd person singular marker *-s* is not part of the AAE grammar although children produce the marker in certain contexts. The speakers' 3rd person singular *-s* and  $\emptyset$ s marking are also discussed in relation to the optional root infinitive stage and the Multiple Grammars approach.

**Keywords:** third person singular *-s*; event marking; African American English; optional infinitive stage; multiple grammars

## 1. Introduction

Research on the development of African American English (AAE) and use by young children started in the 1970's, almost ten years after the first major wave of research on adolescent and adult AAE. It immediately followed the trend set in previous AAE sociolinguistic variation studies. That is, early child AAE studies concentrated on morphosyntactic features that were associated with adolescent and adult AAE, and often the questions were about the extent to which developing speakers used AAE variants and standard English variants. This paper, which focuses on the forms of verbs in 3rd person singular contexts, contributes to the research on developmental morphosyntactic patterns in child AAE, and it also raises questions that have been addressed in research on sociolinguistic variation in varieties of English as well as child language development.

Third singular *-s* is claimed to be absent from the adult AAE grammar (e.g., Labov 1972), based on speakers' limited production of the marker. The data in this paper show that young children definitely produce the *-s* in certain contexts;

however, they clearly show a propensity for not producing it, as in the following example (i.e., *sell* vs. *sells*):

- (1) *You know Pa Pa sell crackling?* (Green 2011: 207)  
 ‘Do you know that Pa Pa sells crackling?’

Optionality and variability are often integral parts of the discussion of AAE, and they are certainly an important part of the description of morphological marking in developing AAE, so they will be addressed here. Two labels for verb morphology discussed here will be used: third (3rd) singular *-s* and zero ( $\emptyset$ ) *-s*. Third singular *-s* refers to overt *-s* in 3rd person singular contexts, and zero *-s* ( $\emptyset_s$ ) refers to cases in which verbs are not marked with *-s* morphology in 3rd singular contexts. The term verbal *-s* is also used as a cover term for *-s* morphology on verbs, not limited to 3rd person singular contexts. Moving away from the common assumption that developing AAE speakers are automatically producing the adult AAE grammar, we explore the possibility that, at least in the early stages, uninflected verbs in child AAE may indicate that children are in a stage in which they are using the verb to mark the event without any reference to other information such as person and number.

In Section 2, we present a general overview of research on variation in varieties of English and end with a discussion of 3rd singular *-s* in child AAE from the angle of production and comprehension of the marker, which has led some researchers to conclude that *-s* emerges late and is not part of the AAE grammar. In Section 3 we review the participants in the study and the methodology in collecting and analyzing data for this paper. Section 4 presents the results of the data from repetition and narrative retell tasks. The data show that children, especially those in the older groups, do hear and associate *-s* with verbs and reproduce the marker to some extent in repetition and in narrative retell tasks. In Section 5, we present an analysis of morphological marking on verbs in 3rd person singular contexts, in which the claim is that *-s* is not part of the AAE grammar although children produce it in some instances. In this section of the paper, patterns of children’s use of uninflected verbs are compared to bare verb forms produced by children in the optional infinitive stage. Given the implications that research on morphological properties of AAE has for how variation is characterized in the linguistic variety, in the final section of the paper, questions are raised about the extent to which the Multiple Grammars approach to variation offers some insight into the AAE system.

## 2. Morphosyntactic Variation: Varieties of English and Child Language

There has been considerable research on morphological and phonological variation in dialects of English from the perspective of frameworks in sociolinguistics,

and variable production of some forms associated with AAE has been consistently featured in this research. The focus on variable production of overt morphological forms and corresponding zero marked forms as a characteristic property of adult AAE likely led to research on morphological forms in child AAE, in which rate of production of variants of the forms was a point of comparison between developing child AAE and adult AAE. The pattern of production of morphosyntactic variants, generally an overt form and a zero form, demonstrates one way in which AAE differs explicitly from General American English (GAE) and has become associated with one of the defining properties of the linguistic variety. Labov's (1969) study on the English copula, which also presents an account of the constraints on the distribution of the copula in AAE, as well as its probability of occurrence in different contexts, has been very influential in subsequent analyses of morphosyntactic patterns in AAE. For instance, Kovac and Adamson (1981) conducted a sociolinguistic study of the copula in language use of 3-, 5-, and 7-year-old residents of Washington, DC. In controlling for race and socioeconomic class, the researchers divided the children into the groups black middle class/white middle class and black working class/white working class. The goal was to determine children's use of contraction and deletion of the copula and to compare variability of the forms in the language of children who have been argued to be developing variable copula production and those who were not. The data were collected during role-playing situations and interviews. One tentative conclusion presented in the paper is that children developing non-standard varieties may have variable features in their speech by age 5 although the constraints on the feature may not be set until later stages.

## 2.1 Varieties of English

One topic in the research of phonological and morphological variation in dialects of English as well as in child language is *-t/-d* deletion or more generally final consonant cluster reduction (e.g., Labov, Cohen, Robins & Lewis 1968; Wolfram 1969, 1974; Baugh 1983; Guy & Boyd 1990; Roberts 1994, 1997; Smith, Durham & Fortune 2009). *-t/-d* deletion has been addressed in both adult and child language. In their research on the rate of occurrence of *-t/-d* in past tense semi-weak verbs such as *kept* and *told*, Guy and Boyd (1990) found that the rate of deletion of these verbs decreases with age. As such, the claim is that these segments occur rarely in children's speech, which suggests that they are not present underlyingly. The authors also argue that the segments are acquired in stages, in which speakers go through a stage of variable production of *-t/-d* in the context of semi-weak verbs.

The verbal marker *-s* has also been addressed in varieties of English in the United States and abroad. For instance, properties of verbal *-s* in the grammars

of adults and children have been discussed in varieties such as Appalachian English (e.g., Tortura & den Dikken 2010), Belfast English (BeE) (Henry 1995), and Buckie English (Smith 2000; Adger & Smith 2005, 2010; Smith, Durham & Fortune, 2007). The marker has been discussed in the context of its use in singular concord in these varieties, which has been defined as a phenomenon in which plural subjects may occur with verbs ending in verbal *-s*. An example from BeE English (Henry 1995: 16) is below:

*These cars go/goes very fast.*

The example shows that singular concord is variable. In the analyses of singular concord in these varieties, properties of their nominal and pronominal agreement systems as well as other constructions in which agreement is required are addressed. For example, in BeE, Henry argues that pronouns such as *we*, *they*, and *youse* (second person plural pronoun) require agreement, so they do not occur with verbs marked with verbal *-s*. They occur with verbs 'marked' for plural agreement or those without *-s*. (See Henry's paper in this volume for a discussion of the development of acquisition in Belfast English.)

Another context in which verbal *-s* has been addressed in the literature is in its variable occurrence as a marker with 3rd person singular subjects. In addition to AAE, Puerto Rican English and AmerIndian (Pueblo) (José 2007) have been reported as exhibiting variable agreement.

## 2.2 Child Language

Morphological properties of child AAE are often considered from the perspective of rate of production for normally developing GAE. For example, Brown (1973) found that the three children he followed in a longitudinal study produced third person singular *-s* in 90% of adult obligatory contexts between the ages of 26 and 46 months. Other studies have confirmed this finding using young children (deVilliers & deVilliers 1973; Lahey, Liebergott, Chesnick, Menyuk & Adams 1992; Miller & Chapman 1981; Radford 1997). For instance, Rescorla & Roberts (2002) reported that three-year-old GAE-speaking children, on average, overtly mark 3rd person singular verbs at 72% (SD = 21). By the time GAE-speaking children are four years of age, overt marking of third person singular *-s* contexts is 90% (SD = 14; Rescorla & Roberts 2002).

Research on the use of *-s* marking in 3rd person singular contexts in children developing GAE and AAE indicates that the children from the two groups show different patterns of development of the marker. Steffensen (1974) reported that 3rd singular *-s* inflection emerges rather late in child AAE speakers, and Reveron (1979) showed that the morpheme is the least frequently produced standard

English morpheme from ages three to six years. Cole (1980) found that the 3-, 4-, and 5-year-old children in her study fulfilled the 90% minimum criterion, indicating that zero *-s* in 3rd person singular contexts was a fully developed component of children's grammar. Moving beyond frequency of production of 3rd person singular *-s*, de Villiers and Johnson (2007) note that AAE-speaking children lack comprehension of *-s* as a generic and verbal marker in 3rd person singular contexts.

These early works focused specifically on the developmental patterns of *-s* without assuming that 3- to 6-year-olds' use and comprehension of *-s* would directly match that of adult AAE speakers; however, in more current research, such as that in Cleveland (2009) and Cleveland and Oetting (2013), patterns of verbal *-s* marking of adult AAE speakers and child AAE speakers are directly compared, and it is noted that some of the frequency findings of overt 3rd singular *-s* in their child studies match those reported for adults in works such as Labov and Harris (1986) and Wolfram (1969). Cleveland and Oetting (2013) note that although it has been reported in the literature that *-s* is used in habitual contexts in adult AAE (e.g., Green 2002; Labov & Harris 1986), they do not find any evidence that this pattern is reflected in child AAE. In referring to the findings in Cleveland (2009) and Cleveland and Oetting (2013), the latter note the following: "Given the adult literature and these two child studies, it was surprising that the children studied here, especially those who spoke AAE, did not produce higher rates of overt marking in habitual verb contexts than in nonhabitual contexts" (p. 611). Given this observation by Cleveland and Oetting (2013), it seems that their assumption is that developing AAE-speaking children should have already established patterns of habitual marking in adult AAE. Why should this be the case, especially in light of the differences that have already been documented between the habitual systems in adult and child AAE?

The current study continues the discussion of morphological marking in the language of three- to six-year-old developing AAE speakers in relation to early stages of  $\emptyset_s$  and overt *-s* in 3rd person singular contexts. Without a doubt, the target for child AAE speakers is adult AAE, in which there is overwhelming  $\emptyset_s$  that has been argued to be part of the grammar (Labov 1972); however, there is no assumption in this study that children's early uses of  $\emptyset_s$  are adult patterns. In this study, we explore production of  $\emptyset_s$  and overt 3rd singular *-s* and begin to raise questions about ways to understand  $\emptyset_s$  as a stage in development in the path to adult AAE.

### 3. Participants and Sources of Data Collection

Participants for this study included 26 children who were between the ages of three and six years old. All of the children were African American and were from

bordering states Louisiana and Mississippi.<sup>1</sup> In both states, the children lived in neighborhoods that were predominantly, if not exclusively, populated by African Americans who were speakers of AAE, creating nearly homogeneous speech communities. For this study, the number one selection criterion was community, so these children, as members of AAE-speaking communities (and having lived in these communities all of their lives), were automatically deemed developing AAE speakers. Of the 26 children, 16 were from an area in Mississippi near the southern border of the Mississippi Delta, and 10 were from an area in southwestern Louisiana. The number of children in each group and corresponding state is given in Table 1.

**Table 1.** Number of children by age and state

Age	N	State
Total	26	
3-year-olds	9	Mississippi
4-year-olds	5	Louisiana
4-year-olds	5	Mississippi
5-year-olds	3	Mississippi
5-year-olds	2	Louisiana
6-year-olds	2	Louisiana

Overt 3rd singular *-s* and  $\emptyset_s$  were considered for this study. These morphological structures were examined in two tasks: sentence imitation from a narrative task and story retelling. The first type of data was a sentence imitation task that involved a wordless picture storybook *Pancakes for Breakfast* (dePaola 1978). The authors created a storyline that consisted of 42 sentences that corresponded to the pictures in the book. (See Appendix.) The events as portrayed in the pictures in the book were represented as being in progress (present imperfective) or as having ended (past perfective). For instance, the picture corresponding to “She puts on her apron” represents the putting on her apron event as in progress, and the one corresponding to “grabs the recipe book” represents a complete grabbing of the recipe book event that has an endpoint. That is, the recipe book is portrayed

1. Although there have not been many comparative studies on language patterns in Louisiana and Mississippi, some researchers (e.g., Dillard 1985) have pointed out similarities among patterns used by speakers in the two states. In addition, considering the geographical proximity and historical similarities, it is not a stretch to include child speakers from these areas in a study.

as already having been taken off of the shelf and opened. The story was written in present tense and included 54 instances of 3rd singular -s and four instances of copula BE (i.e., *is*). The 3rd singular -s verbs selected for the study ranged in frequency of use in the English language. Some of the verbs selected were very common (e.g., *gets*, *sees*) whereas others were less common (e.g., *rises*, *bundles*) according to frequency lists. Of the 51 main verbs in 3rd person singular contexts, 25 ended in the morpheme [z], 24 in [s], and 2 in [əz].

By design, the 42 sentences were constructed to vary in the number of targeted structures within each sentence. Some sentences ( $n = 22$ ) included one instance of 3rd singular -s (e.g., *Today she thinks about making pancakes*). Others ( $n = 16$ ) were coordinated structures and biclausal constructions, with an embedded *because* clause and an embedded *that* clause, which included two instances of 3rd singular -s (e.g., *She stirs and stirs the milk; She bundles up and goes out to get syrup; She sees she doesn't have eggs; The lady feels unhappy because she doesn't have pancakes*). Likewise, some sentences ( $n = 3$ ) included one instance of copula BE (e.g., *She is very happy*) and the other ( $n = 1$ ) was a coordinated structure, which included two instances of copula BE (e.g., *The dog is under the table and the cat is on the windowsill*). Finally, the verb phrases selected for the sentence repetition task were designed to reflect a range of aspectual properties: state (e.g., *She is very happy*), activity (e.g., *She reads about how to make pancakes*), achievement (e.g., *She buys good syrup from the man*), accomplishment (e.g., *She goes to the washbowl to wash her face*), and habitual (e.g., *She always forgets about something*).

Instructions for the task were adapted from Charity (2007). The examiner instructed the child by saying, "Here's how we do this. First I will read a bit and then you will try to say it exactly the way I said it. It's like a game of copycat. Sometimes it may be hard to remember everything, but if you can't say it all, do the best you can, okay?" There were then two practice items to ensure that the child understood the task. Practice items did not include the target form.

From the sentence imitation task, two composite scores were computed. One composite score was computed to reflect the child's usage of the AAE third person verb forms. The composite score represents the number of times each child produced the  $\emptyset_s$  form in place of the overt 3rd singular form modeled by the examiner out of the total number of opportunities to do so. The second composite score was computed to represent the number of times each child produced zero 3rd singular BE ( $\emptyset_{BE}$ ) in place of the overt form modeled by the examiner out of the total number of opportunities to do so.

At the end of the story repetition task, the examiner asked the child to retell the story. The child was permitted to use the pictures in the storybook to facilitate the retelling but was not required to do so. During the retell, the examiners provided

minimal prompting as needed along with words of positive reinforcement such as “good,” nonverbal cues such as head nods, or utterances such as, “anything else?”. Because the children were to retell the story using their own words, there was no control of the words, utterances or tense (i.e., past or present) that they used. As such, the number of 3rd person singular present tense contexts produced by the children varied from child to child. From the story retelling task, a composite score was calculated by dividing the number of  $\emptyset_s$  occurrences by the total number of opportunities for 3rd singular present. The composite score represents the number of times the child produced  $\emptyset$  (or an uninflected verb) in place of the overt 3rd singular *-s* form modeled by the examiner during the sentence imitation task out of the total number of 3rd singular *-s* contexts in the story.<sup>2</sup>

#### 4. Results

The overall mean rate of  $\emptyset_s$  in 3rd singular present contexts in the sentence repetition task was .69 (SD = .21; range = .17 – .93). The overall rate of  $\emptyset_{BE}$  in the sentence repetition task was .36 (SD = .37; range = .00 – 1.00).

##### 4.1 Rates of Zero Marking as a Function of Age

To examine rate of  $\emptyset_s$  and  $\emptyset_{BE}$  marking as a function of age, the children were separated into three age groups. The first age group consisted of children who were three years old, and the second group consisted of four-year-old children. Mann-Whitney *U* tests for independent samples with an alpha level of .05 revealed no significant differences by state for both  $\emptyset_s$  and  $\emptyset_{BE}$ , justifying the combining of four-year-olds from Louisiana and Mississippi. Children who were five-years-old and six-years-old were combined into one group to allow for a more equal distribution of kids in the three groups. In the five- and six-year-old group, three five-year-olds were from Louisiana and two were from Mississippi. The two six year olds were from Louisiana. Again, Mann-Whitney *U* tests for independent samples with an alpha level of .05 revealed no significant differences by state or age for  $\emptyset_s$  and  $\emptyset_{BE}$ , justifying the composition of the group.

The rates of  $\emptyset_s$  for the three age groups were: .77 (SD = .13) for the three-year-olds, .72 (SD = .20) for the four-year-olds, and .54 (SD = .24) for the five-and six-year-olds. An ANOVA indicated a significant between-groups difference in the

---

2. Only present tense verbs were included the analysis. Verbs marked for past were not included in the analysis. Some children used past tense marking in the retell task.

rates of  $\emptyset_s$ ,  $F(2, 25) = 3.34$ ,  $p < .05$ . A Tukey HSD post hoc analysis indicated that the significant difference was between the youngest group and the oldest group  $p < .05$ . To explore the relationship between age and  $\emptyset_s$  further, a Pearson correlation was conducted. Results indicated a significant, negative relationship between age and rate of zero marking in the sentence repetition task,  $r = -.50$ ,  $p < .05$ . That is, older children generally had lower rates of zero marking.

The rates for  $\emptyset_{BE}$  were .42 (SD = .28) for the three-year-olds, .39 (SD = .42) for the four-year-olds, and .25 (SD = .43) for the five- and six-year-olds. An ANOVA revealed no significant difference among the three age group in the rates of  $\emptyset_{BE}$ .

#### 4.2 Rate of Zero Marking as a Function of Verb Type

The children's rates of zero marking in the sentence repetition task were analyzed in relation to the aspectual properties of the verb or predicate phrase. Each verb phrase was classified as either state, activity, achievement, or accomplishment. In addition to these classifications, three verb phrases were also classified as expressing the aspectual property of habituality given that they were modified by the frequency adverb *always* or aspectualizer *keep on*. Rates of zero marking for verb phrases of each aspectual property were calculated and are shown in Table 2. The children's rates of zero marking were ranked in the following order (from highest to lowest): accomplishment (.71), achievement (.70), activity (.63), and state (.53). This rank order held for all three age groups.

Table 2.  $\emptyset_s$  and  $\emptyset_{BE}$ : Mean proportions of zero marking by Verb Type

Group	State	Activity	Achievement	Accomplishment	Habituality
Overall	.53	.63	.70	.71	.78
3-year-olds	.55	.79	.78	.82	.91
4-year-olds	.61	.68	.74	.75	.84
5/6-year-olds	.34	.50	.52	.52	.57

In general, verb phrases expressing the aspectual property of state were zero marked least often. One exception was sentences that expressed the aspectual property of state in the verb phrase *doesn't have*. These utterances (e.g., *She doesn't have any syrup*) were typically zero marked at high rates by children in all three age groups. As shown in Table 2, the children zero marked verb phrases that expressed the aspectual property of habituality most often.

**Table 3.** 3rd Singular -s and Copula BE: Mean Rates of Zero Marking in Coordinated Structures

Sentence	VP <sub>1</sub>	VP <sub>2</sub>
<i>She grabs the bowl and opens the bag of flour.</i> <i>t</i> (19) = 4.81, <i>p</i> = .000	.45	1.00
<i>The dog is under the table and the cat is on the windowsill.</i> <i>t</i> (23) = 2.46, <i>p</i> = .022	.29	.52
<i>She bundles up and goes out to get syrup.</i> <i>t</i> (16) = 2.95, <i>p</i> = .009	.39	.74
<i>She leaves her house and follows the smell.</i> <i>t</i> (22) = 2.91, <i>p</i> = .008	.52	.88
<i>She goes back home and sleeps in the rocking chair.</i> <i>t</i> (21) = 3.46, <i>p</i> = .002	.56	.87

#### 4.3 Rates of Zero Marking as a Function of Verb Coordination

In the sentence repetition task, 17 sentences had either coordinated 3rd singular -s verb phrases or coordinated copula BE structures. Paired t-tests with an alpha level of .05 revealed that five of the 17 pairs showed statistically significant differential marking. As shown in Table 3, in each pair, the rate of zero marking was highest for the second verb phrase. This pattern of differential marking (higher rates of marking in the second verb phrase relative to the first verb phrase) was most evident for the older children.

#### 4.4 Morphological Marking in 3rd Singular Contexts and Allophonic Variation

There was virtually no difference between the rate of  $\emptyset_s$  for verbs ending in [s] and [z]; the mean rate of  $\emptyset_s$  on verbs ending in [s] was .68, and the mean rate  $\emptyset_s$  on verbs ending in [z] was .69.

#### 4.5 Morphological Marking in 3rd Singular Contexts: Rate of Zero as a Function of Task

The rate of zero marking was examined in relation to type of task: repetition and retell. To do this, two composite scores from the story retells were calculated: rates of  $\emptyset_s$  and  $\emptyset_{BE}$  in the story retell task. Rate of  $\emptyset_s$  represents the rate of forms produced without morphological inflection. These utterances could have been glossed as either present tense (e.g., -s) or past tense (e.g., -ed). However, we generally interpreted the zero morphological marker to be -s although we recognize that in

some instances, the zero morphological marker could have been glossed as *-ed*. For instance, in the line “The lady got up and the lady wash her face,” *wash* has zero morphological marking, and the verb can be interpreted as past tense or narrative past.

The overall rate of  $\emptyset_s$  in the retell task was .69 (SD = .25). This rate was compared to the mean rate of  $\emptyset_s$  from the story repetition task. The second composite score derived from the retell task was the children’s rate of  $\emptyset_{BE}$ . This score included the children’s productions of both  $\emptyset$  copula *BE* and  $\emptyset$  auxiliary *BE*. The overall rate of  $\emptyset_{BE}$  in the retell task was .49 (SD = .38). This score was compared to the children’s rate of  $\emptyset_{BE}$  in the story repetition task.

The across-task comparisons for  $\emptyset_s$  revealed that the children had comparable rates of  $\emptyset_s$  marking in the two tasks. As Table 4 indicates, this finding was shown for all three age groups. For the measures of *BE*, the children’s rates of zero marking were highest in the retell task, most notably for the oldest children.

**Table 4.** Mean Percentages (SD) of  $\emptyset$  as a Function of Task: Story Repetition and Story Retell

	3-year-olds	4-year-olds	5&6-year-olds
Rate of $\emptyset_s$ in Repetition Task	.77 (.13)	.72 (.20)	.54 (.24)
Rate of $\emptyset_s$ in Retell Task	.80 (.22)	.71 (.24)	.53 (.25)
Rate of $\emptyset_{BE}$ in Repetition Task	.42 (.28)	.39 (.42)	.25 (.43)
Rate of $\emptyset_{BE}$ in Retell Task	.56 (.34)	.42 (.40)	.50 (.45)

## 5. Analysis/Discussion

In previous research, one major issue that has consistently been at the forefront of studies about how 3rd person singular verbs are marked in child AAE is the frequency at which children produce *-s*/ $\emptyset_s$  on the verbs in third person singular contexts. The questions about frequency are implicitly or explicitly linked to: (1) whether children produce overt *-s* at all, (2) whether the frequency at which children produce *-s* matches the frequency at which adult AAE speakers produce the marker, (3) whether the marker is part of the core grammar of AAE, and (4) whether variable production is linked to a stage in the development. To get at information that sheds light on the nature of the grammar or on whether child AAE exhibits the properties in adult AAE, frequency counts are quite useful but not sufficient. The input that children get from adult AAE influences their grammars, but it cannot be assumed that all forms and structures developing AAE-speaking children produce are replicas of adult AAE although they may be superficially similar to those forms in adult AAE. The discussion in Kovac and Adamson (1981) as well as in Miller (2013) provides some insight into the types

of information that should be considered in drawing conclusions about variable input and development as factors in child language.

For instance, Miller (2013) concludes that variable production of non-agreeing *don't* in the Sarah corpus (Brown 1973) is related to the input of non-agreeing *don't* from her mother. According to Miller, Sarah's use of non-agreeing *don't* changed during the stages of acquisition, such that in Stage 1, Sarah's production of the auxiliary (and uninflected verbs) was almost categorical, but in Stage IV, she had variable production of non-agreeing *don't*. Miller observes that Sarah's variable production or over application is in line with the findings of variable input (Miller & Schmitt 2012) and inconsistent input produced by L2-speaking parents in work by Hudson Kam and Newport (2005, 2009) and Singleton and Newport (2004).

We consider the results from the repetition and retell tasks from four angles guided by the following questions:

1. Do the data related to variable production of  $\emptyset_s$ /-s show any support for an optional root infinitive stage in child AAE?
2. What general properties seem to characterize the period of verbal  $\emptyset_s$ /-s production by three- to six-year-olds?
3. To what extent is there a relation between  $\emptyset_s$  and aspectual properties?
4. Does evidence support the claim that  $\emptyset_s$ , but not overt 3rd singular -s, is part of the AAE grammar or, vice versa, or does it support the claim that neither or both are part of the AAE grammar?

### 5.1 Unmarked Forms vs. Optional Infinitives

Across the board, the participants in the study produced a high percentage of  $\emptyset_s$ -marked verbs in 3rd person singular contexts. From the perspective of morphology, some of the verbs in non-past and past contexts produced by developing AAE-speaking children look like verb forms produced by children who are developing GAE and exhibit patterns of the optional or root infinitive stage. For instance, in GAE, it has been shown that children from one to three years go through a stage in which they optionally omit tense and agreement marking and use uninflected verb forms, which are referred to as root infinitives (Wexler & Rice 1996, among others), and the omission decreases over the period.<sup>3</sup> Ud Deen (1997) noted that 13% of the bare forms in the speech of Adam and Eve had a modal interpretation. On the other hand, 28% had a past interpretation, and 56% a present interpretation. However, it should be noted that Hoekstra and Hyams

---

3. Children with specific language impairment have been observed as being in an extended optional infinitive stage in that they produce optional infinitives beyond the age of three years.

(1998) point out that, in many cases, English speaking children's bare forms are indistinguishable from finite forms in interpretation. They conclude that "...the child's bare form construction, in as far as it instantiates an unanchored structure, has a reading which is indistinguishable from a properly anchored (i.e. finite) structure" (p. 109). Researchers who have considered the optional infinitive stage in other languages have observed that children in this stage also use the verbs in infinitive contexts with a type of modal interpretation.

One view of the data is that developing AAE-speaking children's pattern of zero marking in 3rd singular contexts is associated with an extended optional infinitive stage, so it is ostensibly similar to patterns in adult AAE. The results from the two different types of tasks reported in this study provide some insight into questions about whether patterns of  $\emptyset_s$  are a result of the optional infinitive stage, the terminal state of the grammar, or are a reflection of input from adult AAE in the speech community and are more closely related to the terminal state of the grammar, not development.

In the repetition task,  $\emptyset_s$  is over 80% in the three- to four-year-olds and decreases significantly in the 5-6-year-olds. Although there was some priming of -s in the retell task, which is evident in some of the words and phrases the children used, the children's familiarity with the story did not sustain their overt marking of -s in the retell tasks. The actual samples from the repetition and retell tasks present what looks like overt 3rd singular marking; however, there is no evidence that the children are producing optional infinitive forms. The "bare" forms do not have modal interpretation, and nothing in the variety suggests that the verb forms are in an infinitive form other than the absence of tense and agreement marking. Consider the following excerpt, in which the uninflected or "bare" forms have a finite interpretation although they are not overtly marked for tense/agreement and number. The unmarked verb forms are underlined, and the overtly marked verb form (-s) is italicized:

- (2) The dog skretch and the lady *wakes* up<sup>4</sup>  
 She go to the wash bowl to wash her face  
 She always wash her face in the morning  
 Today she think about pancakes  
 She put the apron on and grab the rece book<sup>5</sup>  
 She read about how to make pancakes  
 She she grab the bowl and open the bag of flours  
 She add flours in the bowl  
 (J26007)

4. The *str* cluster may be pronounced as 'skr' in developmental stages of child AAE and beyond in some regions of the United States.

5. *Rece* [resi] is the child's imitation of *recipe*.

The excerpt is the child's repetition of eight lines of the story that was drafted for *Pancakes for Breakfast*. There is no evidence that the verbal forms that the children use to represent the events have modal interpretation here.

Consider an excerpt from the same child's retell task:

- (3) The lady *got up* and the lady *wash* her face  
 She *put* her (Examiner: "apron") her apron on and *grab* one of those books  
 And she *read* it  
 She *puts* a bowl a uh a bowl of flours in there and she *put* some some flours  
 in there

The participant repeats the infinitive *to wash* in the repetition, but there is no overt *to* in the retell. The verb *wash* seems to be finite; that is, it refers to an event that is tensed although it is not overtly marked. The ambiguity of the reference of *wash* in the retell excerpt is not between a finite and infinitive interpretation; it is between a non-past and past interpretation. The verb indicating the perfective event *got up* is marked as an irregular past form, but *grab* (*one of those books*) is unmarked. The verbs *wash*, the second *put*, and *read*, which refer to imperfective events, are also unmarked. It should be noted that the pronunciation of *read* is the form associated with non-past [rid]. The *put* in the first conjunct in line four is marked with -s, and the only factor distinguishing it from the second *put*, which is unmarked, is that it is in the first conjunct. There do not seem to be any cases of ambiguity between finite and infinitive forms, but there is ambiguity between non-past and past as indicated by verbs that are unmarked for tense. So far, there is no strong evidence to suggest that the bare verb forms are indeed infinitives.<sup>6</sup>

Some observations have been made in the literature about case marking on subjects in the optional infinitive stage. Schütze and Wexler (1996) observe that optional infinitives allow non-Nominative subjects; however, the subjects are often marked for Nominative Case. They propose the Agreement/Tense (Agr/Tns) Omission Model to account for non-Nominative and Nominative subjects that occur with children's bare verbs. The claim is that children omit either Agr or Tns in the optional infinitive stage, and the 3rd person singular morpheme -s only occurs when both Agr (3rd person) and Tns (present) are in the structure. The prediction is that children may produce three different structures, depending on whether Agr and Tense are present. For instance, *her go* is the result of [-Agr, -Tns], *she go* [+Agr, -Tns], and *she goes* [+Agr, +Tns]. In the absence of Agr, the subject has default or Accusative Case (e.g., *her go*). If Agr is present, but Tns

---

6. Research on the modal interpretation as a property of bare forms is not conclusive, but we include information about the interpretation of the bare forms that are produced by children in this study as a means of contributing the description of them.

is not in the structure, the subject has Nominative Case, but the verb is unmarked (e.g., *she go*). Finally, if both Agr and Tns are present, the subject is Nominative and the verb bears 3rd person singular agreement (e.g., *she goes*). Owing to the assumption that -s can only be inserted when Agr and Tns are included, the prediction is that the string *her goes* will not occur (at least not in stages of development exhibited by children acquiring GAE because Agr is missing). The findings in research such as Loeb and Leonard (1991) and Schütze and Wexler (1996), for example, confirm the prediction by showing that the subjects of finite verbs were Nominative marked for the most part in language of children developing GAE and said to be in the optional infinitive stage.

Some children developing AAE use default case on subjects, and the pattern may be reflected in stages beyond 4;0 years. The examples of Accusative subjects are from the repetition task and retells (4;0 female and 5;0 male, respectively):

- (4) The lady feel unhappy because her don't have pancakes.  
Suddenly her smell food cooking.  
Her leaves her house and follows the smell.
- (5) a) She carry the syrup home and think about making the pancakes.  
Oh no! Her walks in and sees a mess.  
b) And her go to the cleaning bowl and her thinks about pancakes.  
*Her went* to get syrup. And her thinks about a stack of pancakes.

In (4) and (5), (*her*), a default case marked subject, occurs preceding both unmarked (or  $\emptyset_s$ ) verbs (e.g., *her smell*, *her go*) and -s marked verbs (e.g., *her walks*, *her thinks*), evidence that AAE-speaking children do not restrict the default case marked subjects to  $\emptyset_s$  contexts or to contexts in which non-Agr-marked subjects occur. The children also use the Agr-marked subject (*she*) in these same contexts.

What is clear is that in many instances,  $\emptyset_s$  occurs in 3rd singular non-past contexts in developmental AAE, so these forms are identical to what have been taken to be optional infinitive forms.<sup>7</sup> However, beyond the “bare” form, there are no strong indicators that the child AAE speakers are in an optional infinitive stage, especially given the properties, such as modal meaning of verbs and default case marked subjects only in the context of [-Tense] verbs, of that stage. Secondly, for those studies in which it has been argued that AAE patterns of  $\emptyset_s$  are reflected in developing child AAE, then if child AAE speakers are in an optional infinitive

---

7. In the paper “African American English and Development of Tense” by Charles Yang, Allison Ellman, Julie Anne Legate, and Karen Miller presented at the Boston University Conference on Language Development (November 2013), uninflected verb forms in AAE are referred to as root infinitives.

stage, it is likely that adult AAE might be understood as being as a type of extended or perpetual optional infinitive stage.

## 5.2 General Properties of Developmental Patterns of Morphological Marking

A number of properties of morphological marking are revealed in the data. Although the participants have relatively high zero-marking, they do produce some semblance of morphological marking, which strongly suggests that the children are not oblivious to morphology as part of the verb form on which it occurs. One important observation is that there are some clues in the repetition data that suggest that the children are not always certain about how *-s* is used as an obligatory Tense/Agreement marker beyond occurring at the ends of words. This claim is based on participants' indiscriminate use of the marker. For example, even in repetition, some participants place *-s* on nouns, not on the verbs with which they were associated. Consider the excerpt (6) below, in which the child places *-s* on the noun *flour*, but not on the verb *add*.

- (6) Her grabs the bowl open the bag of flour  
 Her add flours in the bowl  
 (Z26004, 4 years; LA)

Similar examples are in (7) and (8), in which there is inflection on the nouns *cats* and *messes*.

- (7) The cats walk with her.  
 (T30017; 3 years; MS)
- (8) Awww they make the messes  
 (C23002; 4 years; LA)

These examples (6, 7, and 8) clearly show that children hear and distinguish *-s* as a type of bound morphology although they may be uncertain about where it should be placed or how it should be used. Another indication that some participants were not aware of the meaning and function of *-s* was their use of *-ed* marking instead of *-s* marking in the repetition:

- (9) She stirred and stirred (cf. *She stirs and stirs* in the story the children heard.)

The claim that children may not understand the meaning of 3rd singular *-s* is in line with the findings in de Villiers and Johnson (2007).

The results from coordinated structures (Table 3) also suggest that the participants have questions about how *-s* is used and about its function. In five coordinated verb structures in 3rd singular contexts in the repetition task, the first

verb was more likely to be -s marked. In the remaining coordinated pairs, the differential marking on the verbs was equally likely. From the perspective of the five coordinated pairs in which overt 3rd singular -s marking occurred on the first verb and  $\emptyset_s$  marking on the second verb, it might seem as if the children are using a system of 3rd singular -s agreement in which it is sufficient to mark the first member of the pair such that the agreement carries over to the second member without being overtly marked on it. However, when all of the patterns in children's  $\emptyset_s$ -s marking are considered together, the results suggest that the children are tentative about 3rd singular -s.

### 5.3 $\emptyset$ s and -s in AAE Grammar

Different conclusions about the status of  $\emptyset_s$  and -s in the AAE grammar are based on the frequency of production of the morphology. The surface difference between the younger and the older groups is that the older children repeated 3rd singular -s more frequently than did the younger children. The increased production might be due to the older children's ability to pay attention to morphological details even while focusing on the characters and events in a story and remembering the way the words are combined in sentences.

#### 5.3.1 *Frequency of Production of -s in the AAE Grammar*

According to some interpretations, the results of increased production of -s with age would be construed as reflecting the influence of the school environment on the five- to six-year-olds. In short, the older children would be viewed as producing -s more frequently because they hear it more often in the school environment. The younger children, without the school exposure, have limited -s input from their speech environments, so they produce the marker less frequently. That is, the increase in the production of the marker that is evident here would be attributed to the school environment. For instance, in a longitudinal study, van Hofwegen and Wolfram (2010) showed a roller coaster pattern of use of 3rd singular -s, such that children in their study favored  $\emptyset_s$  at 48 months and disfavored  $\emptyset_s$  at grades one and four, with  $\emptyset_s$  lowest at grade four. In the longitudinal study, they also showed that the children favored  $\emptyset_s$  at grades six and eight. Finally, at grade ten the level of use of 3rd singular -s dropped to the level of use observed in between 48 months and grade one. Two important points that van Hofwegen and Wolfram make are that (1) the high occurrence of  $\emptyset_s$  marking at 48 months is due to the development of AAE, such that the occurrence of  $\emptyset_s$  marking in development and the marking as a pattern in AAE conspire to result in a high level of  $\emptyset_s$  marking in development of AAE and (2) their results support the hypothesis set forth in Craig and Washington (2006) that states that the decline in use of features in early

school years that have been associated with AAE is due to the “corrective effect of early school socializations in Standard American English” (van Hofwegen & Wolfram: 448). The ages in the current study do not perfectly match the ages of the younger children in the van Hofwegen and Wolfram study. Although two children had turned six, there were no first graders in the current study. The question about the influence of school on the use of 3rd singular *-s* in child AAE populations is interesting and should be explored further.

### 5.3.2 *Event Marking in the AAE Grammar*

The low frequency of occurrence of *-s*, even in the repetition tasks of the older children, suggests that the marker is not just subject to optionality during development, but that it might not be an integral part of the grammar of AAE. Lust, Flynn, and C. Foley (1996:62–63) note that “the strongest advantage of elicited imitation method is that it can provide overt, direct evidence of the child’s grammar constructions for particular targeted aspects of grammar, and can do so in highly (linguistically) focused ways.” The sentence imitation results clearly provide some insight into the developing AAE-speaking children’s syntactic structure. For instance, the results show that Nominative Case marking of subjects is part of the developing grammar although some children may still be using default subject Case (Accusative). The results also show that children have some way of expressing Tense, so they have the functional category TENSE although the specific marker 3rd singular *-s* might not be part of the grammar. Together the low frequency or sporadic production of *-s* marking and the pattern of overt morphological marking lead to a two-fold claim about the developing AAE grammar: (1) *-s* as a third person singular marker is not an integral part of the system, but (2) the nature of the AAE grammar, which allows for the functional category TENSE and tense marking on verbs, can accommodate the marker, so speakers can use it with varying degrees of systematicity, which could mean that some speakers produce it when primed for it while others use it from time to time in the context of third person singular subjects. A careful study of variation is needed to confirm this claim.

The support for the part of the claim that the marker may not be an integral part of the grammar of AAE is that even given the increase in frequency of production, overt marking in 3rd person singular present contexts reaches about 50%. The claim that the increase in overt marking is due to school influence is compatible with its not being an integral part of the grammar of AAE. It is quite possible for AAE-speaking children to develop uses of pieces of the GAE grammar that do not overlap with the AAE grammar with varying degrees of proficiency.

Although there was some priming of verbal *-s* in the narrative retell task, which is evident in the children’s choice of some of the same words and phrases

they heard in the repetition task, the children's familiarity with the story based on the rendition they heard with overtly marked 3rd singular -s did not sustain their overt -s marking in the retell tasks. The high rate of  $\emptyset_s$  marking for the youngest age group cannot just be related to limitations on how well the young children remembered the lines in the story because they remembered actual verbs very well and, furthermore, the rate of  $\emptyset_s$  was also very high for them in the repetition task.

It is tempting to conclude that the young children have already established the adult AAE grammar of low frequency of  $\emptyset_s$  marking, but there is an alternative to that view. The zero morphology may simply be indicative of an earlier stage in the children's language development during which they pay attention to the event denoted by the verb, not so much to agreement and other inflectional meaning reflected by -s. These 'unmarked' verbs are sufficient to mark the event: a "think about pancakes" event, a "put the apron on" event, a "grab the rece [recipe] book" event, a "read about how to make pancakes" event, and so on. No overt -s marking is necessary to convey the event; an unmarked verb is sufficient. By not marking the verbs, the children might be indicating that initially the verb simply denotes the event it names without tense, agreement, or aspectual identifiers beyond what can be conveyed by the unmarked form. Given the results with the different verb types, the propensity for  $\emptyset_s$  marking is spread evenly across all verbs in all types, including states.  $\emptyset_s$  marking in states seems low because *is* is also included. As it turns out, the presence of overt copula is affecting the results for states.

Low frequency production of -s is expected owing to the status of the marker in the grammar of AAE. However, the increased verbal -s production in certain contexts might also signal a move toward the adult AAE grammar. That is, increased frequency of production in early stages of child AAE may not be in contrast to AAE; it could be in line with AAE. The claim that is being put forward here is that in AAE there is a morphological template for verbal inflection given that it is marked, in some cases obligatorily and in others optionally. For instance, -ing obligatorily occurs in progressive and habitual marking (*Bruce was running/Bruce be running*). In addition, past/past participial marking (i.e. -ed and variants) also occurs (e.g., *Bruce picked apples*). In effect, in the AAE grammar the verb already has a slot for inflectional marking, which is often filled. Along similar lines, the slot can also be filled with -s, so verbs can also reflect 3rd person singular although that particular inflection may not be an obligatory part of the grammar. The fact that the children use it at all – and mostly in appropriate contexts when they do use it – suggests that in the grammatical morphological template for AAE, there is a 'place' for verbal -s. In other words, children hear it and can map it on to the inflectional position of verbs because it is in line with other morphological markers in their grammars.

#### 5.4 The Acquisition Path: Event Marking and Inflection

The results from the different age groups suggest multiple stages in the use of *-s* marking. An initial stage would be the case of zero marking ( $\emptyset_s$ ), such that children are paying attention to the event expressed solely by the verb, not to other material that can be expressed on the verb. This type of zero-marking may look just like cases of optional or root infinitives, but there is no evidence to postulate root infinitives in child AAE unless it is a purely descriptive term referring to the overt morphological form, which is absent of inflectional marking. In the initial stages, children may begin to mark *-s* overtly based on input. In order to postulate a precise Stage 1, it would be necessary to consider speakers who are considerably younger than the three-year-olds in this study.

The overt  $\emptyset_s$  and *-s* production in the children's repetitions is straightforward if it is assumed that there are only two options: the children either produced  $\emptyset_s$  or *-s*. However, other alternatives should be considered in light of the retell results. There may be at least three stages in the development of the use of verb forms in third person singular contexts that can be identified from the type of data presented in this study. In addition to the initial stage of expressing events with no inflectional marking, there could be subsequent stages during which children begin to produce overt *-s*, which might suggest that they are using the templatic position for the marker. Owing to this observation, one question that arises is whether even in cases of  $\emptyset_s$ , a position for *-s* is available although not filled. There are two possibilities for representing zero-marked verbs (10a, b), and (10c) is an example of the case in which the template position is filled overtly, resulting in phonological realization of *-s*:

- (10) a. grab  
 b. grab- $\emptyset$   
 c. grab-*s*

In both cases (10a) and (10b), an uninflected form is produced in the event marking stage, but there may be two different representations in the grammar. The example in (10b) represents the case of zero-marking, in which the position is available for inflectional material although it remains empty. The chance to fill the position with overt *-s* might be increased by consistent presentation of the overt marker, such as the case of the repetition tasks, in the case of exposure to the marker in school environments, or encounters with more cases of overt *-s* in the input from neighboring varieties or speakers of those varieties. These factors, especially the last one, might also influence other members of the community whose input affects patterns in child language in the community. The representations in (10a) and (10b) also gain support from the unmarked verb forms in the retells. In many cases in the retells, the participants used unmarked verbs that

seem to be ambiguous between a present and past interpretation, and the context did not always successfully disambiguate the verbal interpretation. In such cases, we might expect a later stage in which children instantiate the position and fill it overtly with PAST or NON-PAST inflection. Consider two excerpts from the participants' retells:

- (11) a. She she pop out the house and she buy some more butter  
 She go back home  
 The cat spilled the milk and the dog make a mess on the floor  
 She unhappy and she smell some food  
 (J26007, 4 years, LA)
- b. and she walked and she buy some syrup from the man  
 she is thinking about making pancakes  
 oh no the cat spilled the milk and the dog made a mess on the floor  
 the lady smell pancakes and she walked out her house and left  
 and the man open the door and she sat down and she had a stack of a  
 big stack of pancakes  
 (A26006, 6 years, LA)
- c. She like pancakes.  
 And she went to another house to get pancakes.  
 And she cook pancakes.  
 And the dog waste.  
 And the dog make a mess on the floor.  
 The cat waste.  
 The cat make the milk waste.  
 (K50010, 5 years, MS)
- d. Her open the door.  
 Her finna go get some milk.  
 Her milking the cow.  
 And her pouring the milk in the cup.  
 And her pouring and pouring in the cup and x for a long time.  
 I can't remember that one.  
 I can't remember.  
 Her went to get syrup.  
 And her thinks about a stack of pancakes.  
 And her say oh no.  
 They made a mess.  
 And the cat waste the milk and the dog (waste the dog) made a mess on  
 the floor.  
 And her follow the smell.  
 Her got ready to eat the pancakes.  
 And her went to sleep.  
 And her happy.  
 (J50002, 5 years, MS)

In the excerpts from the retells in (11), the children use  $\emptyset$ , *-s*, and *-ed*. It is plausible that  $\emptyset$  might be instantiated as PAST, too, in these retells.

A summary of the proposed stages is given in Table 5.

**Table 5.** Stages of Third Person Singular *-s*

Stage	Verb Form
Initial stage/Event marking stage	Unmarked verb form (e.g., <i>grab</i> )
Later stages/Inflectional marking stage	<ol style="list-style-type: none"> <li>1. Unmarked verb form with inflectional template (<i>grab-<math>\emptyset</math></i>)</li> <li>2. Optional overt marking (e.g., <i>grab(-s)</i>, <i>grabb(-ed)</i>)</li> </ol>

This approach to child AAE and morphological marking is in line with previous studies in which stages of development of variation have been considered, such as Kovac and Adamson (1981), Guy and Boyd (1990), and Miller (2013).

## 6. Summary and Further Directions

In the analysis presented,  $\emptyset_s$  is taken to be part of the core grammar of AAE, but *-s* is not. The view about  $\emptyset_s$  and *-s* in this paper could also be captured in a multiple grammars (MG) approach, such as that in Roeper (1999, 2006) and Amaral and Roeper (2014). A major tenet of the MG approach is that there are sub-grammars in a language, and optionality is due to incompatible sub-grammars, not to optional rules that apply within one grammar.

An account of  $\emptyset_s$  and *-s* in AAE that would be compatible with the MG approach is one in which AAE speakers have access to multiple grammars. That is, one of the grammars would allow  $\emptyset_s$  and the other overt *-s*. Amaral and Roeper (2014) note that one advantage of the MG approach is that it adheres to the formal requirement of avoid complex rules: “This is in the spirit of modern minimalism. It means that rules with subcategories and complex exceptions are difficult or impossible to formulate and therefore one’s grammar must reject them. They favor, we argue, access to two sub-grammars within a grammar” (p. 3). The major difference between the analysis proposed in the current study to account for the  $\emptyset_s$ /*-s* in the speech of developing AAE speakers and the MG approach may be in the way ‘grammar’ is used. In the MG approach, grammar refers to “subsets of rules (or sub-grammars) that co-exist in Gx” (p. 2). In the view of AAE in this paper, there is no separation between grammars and sub-grammars. The grammar of AAE includes those principles, properties, and idiosyncrasies that characterize the linguistic variety. Part of these properties might very well include subsets

of rules, so the familiar pattern of copula/auxiliary *BE* in AAE, in which both constructions with overt and covert copula/auxiliary *BE* are produced productively in AAE would be explained as resulting from coexisting sub-grammars. However, we would argue here that both options, overt and zero copula/auxiliary *BE*, are integral parts of the AAE grammar. The claim is that both options occur in the AAE grammar; there are no sub-grammars to include options.

Owing to the view of AAE and 3rd singular morphology in this study, the only option in AAE core grammar is  $\emptyset_s$ . This does not mean that AAE speakers will not produce overt -s; we know that they do. It simply means that any access they have to the marker is through some extraneous or external force, such as input from sources other than the core grammar. The MG approach would explain the use of both  $\emptyset_s$  and -s as part of sub-grammars, such that each option is in a different sub-grammar, and according to Amaral and Roeper, speakers have the task of determining “which of her sub-grammars are dominant and productive, and which ones are lexically motivated and idiosyncratic. The first language acquisition process is then defined by the child’s ability to classify this (in principle) incompatible set of rules from the input, and develop mechanisms to appropriately access her multiple sub-grammars in different linguistic contexts” (p. 9). Instead of placing one “feature” within the core grammar and the contrasting one outside of it, both constructions are in sub-grammars, and the speaker has to make the decision about which one is productive.

The approach in this paper and the MG approach are compatible on some levels, so it might be possible to take a MG approach to morphological marking in AAE, which might provide some alternatives to accounting for variation in different contexts, such as repetition tasks and retells, or perhaps optional use of the marker. What is crucial for the discussion here is that the trend in the use of verbal -s suggests that the marker is not used productively or with native competency in 3rd singular contexts, and the conclusion that is drawn in the paper is that it is not part of the core grammar of AAE although it is clearly accessible to speakers. Extending the MG approach to AAE deserves some consideration, especially given the role of variation in the variety. There is significant variability in morphological constructions in AAE, but not all variation is equal and not all morphological markers allow variation in all or certain contexts. This differentiation can be seen in cases of copula/auxiliary *BE* and 3rd singular -s. For instance, both  $\emptyset_{BE}$  and overt *BE* are taken to be part of the AAE grammar, especially given the obligatory occurrence of the overt form in some contexts. The case of  $\emptyset_s$ /-s is different in that there do not seem to be obligatory contexts for the marker on verbs occurring with 3rd person singular subjects. At the very least, a MG approach should be able to distinguish the two types of variation exemplified by the copula/auxiliary *BE* ( $\emptyset_{BE}$ /overt *BE*) and 3rd singular ( $\emptyset_s$ /-s).

## References

- Adger, David & Jennifer Smith. 2005. Variation and the minimalist program. In Leonie Cornips & Karen Corrigan (eds.), *Syntax and variation: Reconciling the biological and social*, 149–178. Amsterdam: John Benjamins. doi:10.1075/cilt.265.10adg
- Adger, David & Jennifer Smith. 2010. Variation in agreement: A lexical feature-based approach. *Lingua* 120. 1109–1134. doi:10.1016/j.lingua.2008.05.007
- Amaral, Lulz & Tom Roeper. 2014. Why minimal multiple rules provide a unique window into UG and L2. *Second Language Research* 30. 97–107. doi:10.1177/0267658313511107
- Baugh, John. 1983. *Black street speech*. Austin: University of Texas Press.
- Brown, Roger. 1973. *A first language: The early stages*. Cambridge, MA: Harvard University Press. doi:10.4159/harvard.9780674732469
- Charity, Anne H. 2007. Regional differences in low SES African-American children's speech in the school setting. *Language Variation and Change*. 19, 281–293. doi:10.1017/S0954394507000129
- Cleveland, Lesli H. 2009. *Children's production of verbal -s by dialect type and clinical status*. Unpublished doctoral dissertation. Louisiana State University, Baton Rouge.
- Cleveland, Lesli H. & Janna B. Oetting 2013. Children's marking of verbal -s by nonmainstream English dialect and clinical status. *American Journal of Speech-Language Pathology* 22. 604–614.
- Cole, Lorraine T. 1980. *A developmental analysis of social dialect features in the spontaneous language of preschool black children*. Unpublished doctoral dissertation. Northwestern University, Evanston.
- Craig, Holly K & Julie A. Washington 2006. Recent research on the language and literacy skills of African American students in the early years. *Handbook of Early Literacy Research* 2. 163–172.
- dePaola, Tomie. 1978. *Pancakes for breakfast*. New York, NY: Houghton Mifflin Publishing Company.
- de Villiers, Jill & Peter de Villiers 1973. A cross-sectional study of the acquisition of grammatical morphemes in child speech. *Journal of Psycholinguistic Research* 2. 267–278. doi:10.1007/BF01067106
- de Villiers, Jill & Valerie E. Johnson 2007. The information in third person /s/: Acquisition across dialects of American English. *Journal of Child Language* 34. 133–158. doi:10.1017/S0305000906007768
- Dillard, Joey L. 1985. *Toward a social history of American English*. Berlin: Moutin.
- Green, Lisa J. 2002. *African American English: A linguistic introduction*. Cambridge, NY: Cambridge University Press. doi:10.1017/CBO9780511800306
- Green, Lisa J. 2011. *Language and the African American child*. Cambridge, NY: Cambridge University Press.
- Guy, Gregory & Sally Boyd. 1990. The development of a morphological class. *Language Variation and Change* 2. 1–18. doi:10.1017/S0954394500000235
- Henry, Allison. 1995. *Belfast English and Standard English: Dialect variation and parameter setting*. New York: Oxford University Press.
- Hoekstra, Teun & Nina Hyams. 1998. Aspects of root infinitives. *Lingua* 106(1). 81–112. doi:10.1016/S0024-3841(98)00030-8

- Hudson Kam, Carla L. & Elissa Newport. 2005. Regularizing unpredictable variation: The roles of adult and child learners in language formation and change. *Language Learning and Development* 1. 151–195.
- José, Brian. 2007. Appalachian English in southern Indiana: The evidence from verbal -s. *Language Variation and Change* 19. 249–280. doi:10.1017/S0954394507000130
- Kovac, Ceil & H. Douglas Adamson. 1981. Variation theory and first language acquisition. In David Sankoff & Henrietta Cedergren (eds.), *Variation Omnibus: Current Inquiry into Language and Linguistics*, 403–410. Edmonton, Canada: Linguistics Research, Inc.
- Labov, William 1969. Contraction deletion, and inherent variability in the English copula. *Language* 45. 715–762. doi:10.2307/412333
- Labov, William. 1972. *Language in the inner city: Studies in the Black English vernacular*, Vol. 3. Philadelphia, PA: University of Pennsylvania Press.
- Labov, William, Paul Cohen, Clarence Robins & John Lewis. 1968. *A Study of non-standard English of Negro and Puerto speakers in New York City* 2. Philadelphia: US Regional Survey.
- Labov, William & Wendell A. Harris. 1986. De facto segregation of black and white vernaculars. In David Sankoff (ed.), *Diversity and Diachrony*, 1–24. Amsterdam: John Benjamins. doi:10.1075/cilt.53.04lab
- Lahey, Margaret, Jacqueline J. Liebergott, Marie Chesnick, Paula Menyuk & Janet Adams. 1992. Variability in children's use of grammatical morphemes. *Applied Psycholinguistics* 13. 373–398. doi:10.1017/S0142716400005683
- Loeb, Diane F. & Laurence B. Leonard. 1991. Subject case marking and verb morphology in normally developing and specifically language-impaired children. *Journal of Speech, Language, and Hearing Research* 34. 340–346.
- Lust, Barbara, Suzanne Flynn & Claire Foley. 1996. What children know about what they say: Elicited imitation as a research method for assessing children's syntax. In Dana McDaniel & Cecile McKee (eds.), *Methods for Assessing Children's Syntax* 55–76. Cambridge, MA: The MIT Press.
- Miller, Karen. L. & Christina Schmitt. 2012. Variable input and the acquisition of plural morphology. *Language Acquisition* 19. 223–261.
- Miller, Karen. 2013. What Sarah reveals about non-agreeing don't and theories of root infinitives. *Language Acquisition* 20. 305–324. doi:10.1080/10489223.2013.828061
- Miller, Jon F. & Robin S. Chapman. 1981. The relation between age and MLU in morphemes. *Journal of Speech, Language, and Hearing Research* 24. 154–161.
- Radford, A. 1997. *Syntactic theory and the structure of English: A minimalist approach*. Cambridge, England: Cambridge University Press. doi:10.1017/CBO9781139166706
- Rescorla, Leslie & Julie Roberts. 2002. Nominal vs. verbal morpheme use in late talkers at ages 3 and 4. *Journal of Speech, Language, and Hearing Research* 45. 1219–1231. doi:10.1044/1092-4388(2002/098)
- Reveron, Wilhelminia W. 1979. *The acquisition of four black English morphological rules by black preschool children*. Unpublished doctoral dissertation. The Ohio State University, Columbus.
- Roberts, Julia. 1994. Acquisition of variable rules: (-t, -d) deletion and (ing) production in preschool children. Unpublished doctoral dissertation. University of Pennsylvania, Philadelphia.
- Roberts, Julie. 1997. Acquisition of variable rules: A study of (-t/-d) deletion in preschool children. *Journal of Child Language* 24. 351–372. doi:10.1017/S0305000997003073

- Roeper, Tom. 1999. Universal bilingualism. *Bilingualism Language and Cognition* 2. 169–186. doi:10.1017/S1366728999000310
- Roeper, Tom. 2006. Nodes and features: *How the multiple grammar perspective predicts stable and unstable dialects and the order of acquisition*. Retrieved from: [http://people.umass.edu/roeper/online\\_papers/Stable%20Dialects%20drf4-%20apr3,06.pdf](http://people.umass.edu/roeper/online_papers/Stable%20Dialects%20drf4-%20apr3,06.pdf).
- Schütze, Carson & Kenneth Wexler. 1996. Subject case licensing and English root infinitives. In *Proceedings of the 20th annual Boston University conference on language development* 2. 670–681. Somerville, MA: Cascadilla Press.
- Singleton, Jenny & Elissa L. Newport. 2004. When learners surpass their models: The acquisition of American Sign Language from inconsistent input. *Cognitive Psychology* 49. 370–407.
- Smith, Jennifer. 2000. Synchrony and diachrony in the evolution of English: Evidence from Scotland. Unpublished doctoral dissertation. University of Pennsylvania, Philadelphia.
- Smith, Jennifer, Mercedes Durham & Liane Fortune. 2007. “Mam ma troosers is fa ‘in doon!”: Community, caregiver, and child in the acquisition of variation in a Scottish dialect. *Language Variation and Change* 19. 63–99.
- Smith, Jennifer, Mercedes Durham & Liane Fortune. 2009. Universal and dialect-specific pathways of acquisition: Caregivers, children, and t/d deletion. *Language Variation and Change* 21. 69–95. doi:10.1017/S0954394509000039
- Steffensen, Margaret S. 1974. *The acquisition of Black English*. Unpublished doctoral dissertation. University of Illinois, Urbana.
- Tortura, Christina & Marcel den Dikken. 2010. Subject agreement variation: Support for configurational approach. *Lingua* 120. 1098–1108. doi:10.1016/j.lingua.2009.04.004
- Ud Deen, Kamil. 1997. *The interpretation of root infinitives in English: Is eventivity a factor*. Unpublished manuscript. University of California, Los Angeles.
- Van Hofwegen, Janneke & Walt Wolfram. 2010. Coming of age in African American English: A longitudinal study. *Journal of Sociolinguistics* 14. 427–455. doi:10.1111/j.1467-9841.2010.00452.x
- Wexler, Kenneth & Mabel L. Rice. 1996. Toward tense as a clinical marker of specific language impairment in English-speaking children. *Journal of Speech, Language, and Hearing Research* 39. 1239–1257. doi:10.1044/jshr.3906.1239
- Wolfram, Walter. 1969. *A linguistic description of Detroit Negro Speech*. Washington, DC: Center for Applied Linguistics.
- Wolfram, Walt. 1974. The relationship of southern speech to vernacular black English. *Language* 50. 498–527. doi:10.2307/412221

### Authors' addresses

Brandi L. Newkirk-Turner  
 School of Public Health Initiative  
 Department of Communicative Disorders  
 350 West Woodrow Wilson Drive  
 Suite 2301-B  
 Jackson, MS 39213  
 USA

Lisa Green  
 Department of Linguistics  
 464 Integrative Learning Center  
 University of Massachusetts at Amherst  
 650 North Pleasant Street  
 Amherst, MA 01003  
 USA

brandi.l.newkirk@jsums.edu

lgreen@linguist.umass.edu

## Appendix

### Sentence Repetition Story Script for, Pancakes for Breakfast

**Instructions to Child<sup>8</sup>:** *Here's how we do this. First, I will read a bit, and then you will try to say it exactly the way I said it. It's like a game of copycat. Sometimes it may be hard to remember everything, but even if you can't say it all, do the best you can, okay? Let's try a few.*

**Show the child the cover of the book.**

**(Example 1)** *I like pancakes.*

**(Example 2)** *I like to eat them for breakfast.*

*Very good! Let's read our story.*

Page	Script
1	The sun rises.
2	The dog stretched and the lady wakes up.
3	She goes to the washbowl to wash her face. She always washes her face in the morning. Today she thinks about pancakes.
4	She puts on her apron and grabs the recipe book.
5	She reads about how to make pancakes.
6	She grabs the bowl and opens the bag of flour.
7	She adds flour in the bowl. Oh no! She sees she doesn't have any eggs.
8	She takes a basket out to get eggs. The dog walks with her.
9	She goes to the chickens and picks up eggs.
10	Oh no! She keeps on forgetting something. She sees she doesn't have any milk.
11	She takes a bucket out to get milk. The cat walks with her.
12	She milks the cow.
13	And she takes the milk back home. She pours the milk into the pitcher.
14	She puts milk into a bowl. Now she pours the milk into a butter churn.
15	She stirs and stirs the milk for a very long time to make butter.
16	She takes the butter out and she puts it in a bowl She is very happy.

(Continued)

8. Instructions adapted from Charity (2007).

---

Page	Script
17	Now she has flour, eggs, butter and milk. The dog is under the table and the cat is on the window sill. Oh no! She sees that she doesn't have any syrup. She always forgets about something.
18	She bundles up and goes out to get syrup.
19	She buys <i>good</i> syrup from the man.
20–21	She carries the syrup home and thinks about making the pancakes.
22	Oh no! She walks in and sees a mess.
23	Look! The cat knocks over the milk and the dog makes a mess on the floor.
24	The lady feels unhappy because she doesn't have pancakes. Suddenly she smells food cooking.
25	She leaves her house and follows the smell.
26	Her man opens the door. The wife cooks breakfast.
27	The lady sits down and gets ready to eat a big stack of pancakes.
28	She goes back home and sleeps in her rocking chair. She is very happy.

---