

March 2019

Relationship between Subject Pronoun and Verb Finite Marking in AAE-Speaking Children

Emily C. Sossaman

Louisiana State University and Agricultural and Mechanical College

Follow this and additional works at: https://repository.lsu.edu/gradschool_theses



Part of the [Speech Pathology and Audiology Commons](#)

Recommended Citation

Sossaman, Emily C., "Relationship between Subject Pronoun and Verb Finite Marking in AAE-Speaking Children" (2019). *LSU Master's Theses*. 4908.

https://repository.lsu.edu/gradschool_theses/4908

This Thesis is brought to you for free and open access by the Graduate School at LSU Scholarly Repository. It has been accepted for inclusion in LSU Master's Theses by an authorized graduate school editor of LSU Scholarly Repository. For more information, please contact gradetd@lsu.edu.

RELATIONSHIP BETWEEN SUBJECT PRONOUN AND VERB FINITE MARKING IN
AAE-SPEAKING CHILDREN

A Thesis

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
In partial fulfillment of the
requirements for the degree of
Masters of Arts

in

The Department of Communication Sciences & Disorders

By
Emily Claire Sossaman
B.A., Louisiana State University, 2017
May 2019

ACKNOWLEDGMENTS

First and foremost, I would like to thank my thesis mentor, Dr. Janna Oetting. Thank you for taking me on as a first-year graduate student and for all the guidance, patience, and wisdom you have given me. Thank you for continuing to steer me in the right direction the entire way and dedicating so much of your valuable time in helping me succeed. I am forever grateful for everything I have learned from you. To my committee members, Dr. Haebig and Dr. Chung, thank you for providing your expertise and advice.

A big shout out to my girls in the Language Development and Disorders Lab: Lilli Patton, Shea Moreau, Maria Ciaccio, Julie Town, Abby Massey, Kelsey Galatas, and Skyller Castello! Thank you for all your help with data coding. If not for you, I would still be coding twenty years from now. A very special shout out to Lilli Patton. I'm extremely grateful for all the time and effort spent assisting me in this thesis process.

To my parents, Shali and Craig, and my sister, Grace, for all their love and support. Thank you for motivating me to reach my full potential. I could not have done this without you.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	ii
LIST OF TABLES.....	iv
ABSTRACT.....	v
CHAPTER 1. INTRODUCTION.....	7
Pronouns Case.....	8
Studies of Typically Developing Children.....	10
Children with SLI.....	12
The Concept of Finiteness and the OI/EOI Account.....	13
Pronoun Case in AAE.....	16
Finite Marking in AAE.....	19
Summary.....	22
Research Questions.....	23
CHAPTER 2. METHODS.....	24
Data.....	24
Language Samples.....	25
Reliability.....	28
CHAPTER 3. RESULTS.....	30
Frequency of Pronoun Case Marking and Verb Marking.....	30
Type of Overtly Marked Finite Verb: Mainstream vs. Nonmainstream Forms.....	34
CHAPTER 4. DISCUSSION.....	36
Findings as Related to Previous Studies.....	36
Clinical Implications.....	38
Limitations.....	40
Future Directions.....	41
Conclusion.....	41
REFERENCES.....	42
VITA.....	46

LIST OF TABLES

1. Mainstream pronoun marking options produced by AAE-speaking children.....	18
2. Nonmainstream pronoun marking options produced by AAE-speaking children.....	19
3. Frequency and percentage of objective case for subject pronouns by group.....	19
4. Participant characteristics.....	25
5a. Example of data coding for objective case.....	27
5b. Example of data coding for subjective case.....	28
6. Examples of common coding disagreements.....	29
7. Distribution of pronoun marking	30
8. Verb marking by type of pronoun case marking.....	31
9. Frequencies of verb marking by type of pronoun case marking.....	31
10. Percentages of verb marking by type of pronoun case marking.....	31
11. Distribution of pronoun marking by group.....	33
12. Frequencies of verb marking by type of pronoun case marking and group.....	33
13. Percentages of verb marking by type of pronoun case marking and group.....	33
14. Frequencies of mainstream and nonmainstream overt finite verb marking.....	34
15. Percentages of mainstream and nonmainstream overt finite verb marking.....	34
16. Frequencies of mainstream and nonmainstream overt finite verb marking by group.....	35
17. Percentages of mainstream and nonmainstream overt finite verb marking by group.....	35
18. Relationships between pronoun case marking and the marking of finite verb forms.....	39

ABSTRACT

Children learning General American English (GAE) show a relationship between their case marking of subject pronouns and their marking of finite verbs, and this relationship has been found for children with specific language impairment (SLI) and typically developing controls (TD). The relationship between children's case marking of subject pronouns and finite verb marking has not been examined in children who speak dialects of English that differ from GAE. The purpose of the current study was to examine this relationship in children learning African American English (AAE) as this dialect differs from GAE. The data came from an archival dataset of language samples from 53 African American children, aged 61-74 months, who spoke AAE; 23 children were classified as SLI and 30 were classified TD. Samples from these children were selected from the larger dataset because they included at least one utterance with a subject pronoun marked with objective case (e.g., *him is walking*). To examine the children's pronoun systems, utterances with objective case for subject pronouns (e.g., *me, him, her, them,*) were extracted from the language samples along with similar numbers of randomly selected utterances with subjective case for subject pronouns (e.g., *I, he, she, they*). Then, for each of these utterances, the children's verb forms were categorized as overtly marked finite (e.g., *walked, ran, swims*), zero marked finite (e.g., *walk, run, swim*), or other (e.g., verb forms without overt finite marking required, such as *They always cheer for the Saints*). The overtly marked finite verbs were also further coded as either mainstream overt (e.g., *walked, ate*) or nonmainstream overt (e.g., *had walked, ated*).

Results showed that 130 (31%) of the children's subject pronouns with objective and subjective case marking were produced with verbs coded as other, and these could not be used to examine relationships between the children's case marking of pronouns and finite verbs.

However, of 294 utterances with pronouns that could be used, a relationship between subjective case marking of subject pronouns and overt marking of finite verbs existed for the TD, but not SLI group. In addition, the TD group showed a relationship between their subjective case marking of subject pronouns and their use of mainstream overtly marked finite verb forms as compared to their use of nonmainstream overtly marked finite forms. These findings indicate that relationships between subject case pronoun marking and finite verb marking exist for children learning AAE who are typically developing, although the relationship is not identical to what has been documented for children learning GAE.

CHAPTER 1. INTRODUCTION

Dialectal variation exists within American English. A dialect is a rule-governed variant of a language that is shared by a group of individuals. As counted by Wolfram and Ward (2006), there are at least 30 English dialects within the United States. These include dialects of General American English (GAE) as spoken throughout various regions of the country; dialects of the South as spoken in Appalachia, the Smokey Mountains, South Carolina, Texas, Louisiana (New Orleans), and Tennessee (Memphis); dialects of the North as spoken in Massachusetts (Boston), Pennsylvania (Pittsburg), New York (New York City), Pennsylvania (Philadelphia), and Canada; dialects of the West as spoken in California, Utah, Oregon (Portland), and Arizona; and dialects of the North American Islands as spoken in Hawaii, West Indies, South Carolina (Sea Island), GA, Bahamas, North Carolina (Outer Banks), Maryland (Smith Island), Canada (Newfoundland), and Tristan da Cunha.

In addition to classifying dialects by their locations, Wolfram and Ward (2006) note that some dialects are based on the sociocultural histories and identities of different communities of speakers. The nonmainstream dialect, African American English (AAE) is considered a sociocultural dialect, and it is the focus of this study. According to the United States Census Bureau in July of 2018, African Americans made up 12.3% of the U.S. population. However, it is unknown how many people speak AAE. Currently, not all African Americans speak AAE, and not all AAE speakers are African American; thus, it is difficult to determine the current prevalence of AAE-speaking individuals in the U.S.

In a recent study, Brown (2017) analyzed pronoun case marking by AAE-speaking children with and without specific language impairment (SLI). The study investigated children's marking of all pronouns to determine if the two groups of AAE speakers differed in their

pronominal systems. As will be discussed, Brown identified some group differences but also many group similarities, especially as related to the children's use of objective and subjective case for subject pronouns. However, Brown did not consider the relationship between the children's case marking of subject pronouns and their marking of finite verb forms. The current study performed a secondary analysis using archival data from Brown (2017) to examine this relationship.

The literature review for this study is divided into three sections. First, I review what is known about children's development of pronouns. This review covers literature on the relationship between pronoun forms and verb forms using data from children learning GAE. This section includes studies of children who are developing language typically and children with SLI. The second section reviews the general concept of finite marking in English and Rice, Wexler, and Cleve's (1995) Optional Infinitive (OI)/Extended Optional Infinitive (EOI) Account, because this account offers a hypothesis about the relationship between children's acquisition of pronoun case and finite verb morphology. The third section focuses on the pronoun and verb systems of AAE. This section includes a detailed review of Brown's study.

Pronoun Case

Researchers have investigated children's marking of pronouns as related to their verb morphology for over 20 years (Rispoli, 2004). As children develop language, they learn pronouns along with the features they possess (Fitzgerald et al, 2017). As shown in Figure 1, the features of pronouns can be classified into four distinct categories: number (i.e., singular or plural), person (i.e., first, second, third), case (e.g., *nominative*, *objective*, *genitive*) and gender (i.e., masculine, feminine, or neutral).

		Number			Case	
		Singular		Plural		
Person	1st	I		we	Sub	
		me		us	Obj	
		my		our	Gen	
	2nd	you			Sub	
		your			Obj	
	3rd	he		it	they	Sub
		she			them	Obj
		him		its	their	Gen
		her				
	his		Neuter			
Masc		Fem				
Gender						

Figure 1. The English pronominal system. Reprinted with permission. Fitzgerald, C. E., Rispoli, M., & Hadley, P. A. (2017). Case marking uniformity in developmental pronoun errors. *First Language*, 37(4), 391-409. doi:10.1177/0142723717698007.

Case is a grammatical feature that indicates whether a pronoun is serving as the subject or object of a verb within a clause, and/or whether the pronoun indicates possession. In English, there are three different forms of pronoun case: the subjective or nominative (i.e., *I, he, she, they*), the objective, accusative or dative (i.e., *me, him, her, them*), and the possessive or genitive (i.e. *my, his, her, their*).

Errors in pronoun case occur when children produce a pronoun with a different case than an adult speaker of the language (Rispoli, 1994; 1998). These errors are common in children's acquisition of GAE and other mainstream dialects of English, and Rispoli (1994) labels these case errors as overextensions. In addition, he identifies a child's use of *him* for *he* or *my* for *I* as

examples of oblique overextensions, which reflect the child's use of the objective or genitive case for the nominative case.

Studies of Typically Developing Children

In GAE and other mainstream dialects of English, children's case errors are most evident with first and third person forms (Pine, Rowland, Lievan & Theakston, 2005; Rispoli, 1998, 1999; Schutze and Wexler, 1996; Vainikka, 1993). First and third person errors also occur most often when the objective case is substituted for subjective case (e.g., *me* for *I*; *him* for *he*; Fitzgerald et al, 2017). In contrast, substitution of the subjective case for the objective or genitive case (e.g., *I* for *me*, *he* for *him*) is uncommon (Rispoli, 1998). For example, utterances such as, "Him play with Mia," are frequently produced by children learning GAE, whereas utterances such as, "Mia play with *he*" are rare. Given this, previous studies of children's pronoun case errors have often concentrated on the marking of subject pronouns (Fitzgerald et al, 2017).

In GAE and other mainstream dialects of English, previous studies examining children's pronoun case errors show first person errors (i.e., *me* for *I*) to occur most often between the ages of 20-30 months (Kirajavinen et al, 2009, Schutze & Wexler, 1996; Vainikka, 1993) and third person case errors (e.g., *him* for *he*, *her* for *she*) to occur slightly later and between the ages of 22-43 months (Schutze & Wexler, 1996; Vainikka, 1993; Wexler, Schutze & Rice, 1998), with these latter types of errors emerging in the majority of children by 35 months (Loeb & Leonard, 1991; Rispoli, 2005).

In a recent study, Fitzgerald (2014) investigated the relationship between children's first and third person case errors by examining language samples from 43 typically developing GAE-speaking toddlers (22 boys, 21 girls). The primary purpose of the study was to determine if an association existed between the children's first and third person pronoun case errors, but as a part

of the analysis, she also examined the relation between the children's subject case errors and their marking of finite verbs. The children's language samples were collected longitudinally when they were 21, 24, 27, 30, 33 and 36 months of age. Each sample was one hour in length and collected in a playroom with the primary caregiver. All samples were transcribed, and all transcripts were searched for *I, me, my, mine, we, us, our, ours, he him, his, she, her, hers, they, and them*. Then, each pronoun was coded as correct or incorrect for case marking.

Fitzgerald's first analysis examined the age of the children when they made first and third person case marking errors. Her results were consistent with the literature in that the mean age at which the children produced first and third person errors occurred at 26.4 months and 29.5 months of age, respectively. The age range for the onset of these errors was at 24-27 months of age for first person errors and 27-30 months of age for third person errors. In addition, half of the children who produced first person errors made their initial error before 27 months of age, whereas the median age value for third person errors was 30 months. Finally, for most of the children sampled, the mean age of the last observed case error occurred at 29.07 months for first person, and 33.3 months for third person.

For the second analysis, children were assigned to one of four categories based on the types of errors they made or didn't make. Specifically, children were categorized as producing: only first-person errors, only third person errors, both first and third person errors, or neither errors. These categories were made by looking at each child's data across all 15 months (21 to 36 months) of the study. Then, the number of children in each category was entered into a contingency table to examine the presence of an association with a chi square test. Results were as follows. Only a small percentage (28%) of children produced only first or third person case errors. All others (53%) produced case errors with both first and third person pronouns or with

neither first nor third person pronouns (19%). Children were also more likely to produce case errors with both singular and plural forms (e.g., (singular: *him* for *he*; plural: *them* for *they*) than with only one number, and with both masculine and feminine forms (e.g., feminine: *her* for *she*; masculine: *him* for *he*) than in only one gender.

Finally, Fitzgerald examined the relationship between the children's subject case marking errors and their marking of finite verb forms. To examine the relationship, Fitzgerald completed a regression. These analyses showed the children's accuracy of finite marking to predict their subject case marking errors. Specifically, the model predicted that children who marked finiteness less than 45% would have a 90% probability of producing a subject pronoun case error between 30 and 36 months, and children who marked finiteness above 80% would have a 21% probability of producing a subject pronoun case error. Visual inspection of the data was consistent with the model, because all 11 children who marked finiteness less than 45% produced a subject pronoun case error, and only one of the seven who marked finiteness above 80% produced a subject pronoun case error.

From these results, Fitzgerald (2014) concluded that GAE-speaking children acquire pronoun case marking as a system rather than learning each case individually, and acquisition of this system is related to the acquisition of overtly marked finite verb forms.

Children with SLI

Researchers have examined whether GAE-speaking children with SLI have more difficulty with pronoun case errors than children learning language typically. Loeb and Leonard (1991) examined third person subject case errors (i.e., *she*, *he*, *him*, *her*) in a study of eight children with SLI, aged 4 to 5 years, and 8 TD children, aged 2;11 to 3;4 years. They found that children who had a high frequency of subject case marking were more likely to produce overtly

marked finite verb forms. Results also showed that the children with SLI had more difficulty than the TD children in both the marking of subject case pronouns and finite verbs; however, subject case marking of both groups was found to be related to their marking of finite verb forms. In the SLI and TD groups, the correlation between the child's subject case marking and finite verb marking was .74 and .92, respectively. These results are consistent with Fitzgerald (2014) in showing that GAE-speaking children's marking of subject pronouns is related to their marking of finite verb forms.

The Concept of Finiteness and the OI/EOI Account

Radford (1997) defines finiteness as a collection of “grammatical features associated with clauses.” In GAE (and when the main clause does not contain an auxiliary), the main verb carries subject-verb agreement and tense. When main verbs are marked for finiteness, they are considered finite verbs. For example, (1a) *cooked* and (1b) *cooks* are both considered verbs with finite marking. In (1c), *cook* has an omitted tense marker on the verb, and in GAE, this verb is considered nonfinite and viewed as ungrammatical.

- (1) a. They *cooked*
- b. She *cooks*.
- c. *Yesterday, he *cook*.

When an auxiliary DO (i.e., *do, did, does*) or BE (i.e., *am, is, are, was, were*) is present within an utterance, then these auxiliaries carry the tense and agreement marking for the clause (Wexler, 1994; 1995). The auxiliary BE and DO forms are not semantically associated with action, like the verb *cook*, when standing alone. However, BE and DO are classified as finite if they are overtly marked for tense and/or agreement in a clause, as in (2a), (2b) and (2c).

- (2) a. He *is/was* cooking.

- b. She *does/did* not cook.
- c. She *is* hungry.

Interestingly, in examples (3a) and (3b), *cook* is also finite. Rice et al. (1995) describe these finite verb forms as having invisible features of tense and agreement, and note that these features become apparent when negation (i.e., *not*) is added to the clauses via an auxiliary, as seen in (3c) and (3d).

- (3) a. They *cook*.
- b. You *cook*.
- c. They *didn't* cook
- d. You *didn't* cook.

In GAE and other mainstream dialects of English, finite marking only occurs once per clause (Radford, 1997; Rice et al., 1995). In (4a) and (4b), *liked* and *made* are marked for finiteness, and *cook* is nonfinite and part of the embedded infinitival verb clause. These sentences show that finiteness is not determined by the surface features of the verb, but by syntactic features within the clause. In (4c) and (4d), the utterances are ungrammatical because finite marking is produced for both the main verbs and the secondary verbs that are embedded within the infinitival verb clauses.

- (4) a. He *liked* to *cook*.
- b. She *made* him *cook*.
- c. *She *liked* to *cooks*.
- d. *She *made* him *cooks*.

Finally, and again for GAE and other mainstream dialects of English, finiteness does not only affect verbs, but other grammatical features, such as subject case marking (Schultze & Wexler,

1996). In (5a), the subject pronoun (*she*) has subjective case, and it is followed by a finite verb (*cooks*); this sentence is grammatical in GAE. This example is in contrast to (5b), (5c), and (5d), which are all ungrammatical in GAE. In (5b), objective case (*him*) is produced for the subject pronoun, and it is followed by a finite verb form (*walks*). In (5c), objective case (*her*) is produced for the subject pronoun, and it is followed by a nonfinite verb form (*cook*). In (5d), subjective case is produced for the subject pronoun, and it is followed by a nonfinite verb form (*cook*).

- (5) a. She cooks
- b. Him walks
- c. *Her cook
- d. *She cook

In GAE, finite marking develops in typically developing children between the ages of two and four years. Wexler (1994) refers to this stage as the optional infinitive stage. In this stage, children's marking of finite verbs is optional; sometimes they produce a finite verb form and sometimes they produce a nonfinite form in clauses that should be marked for finiteness. Rice et al.'s (1995) Optional Infinitive (OI)/Extended Optional Infinitive (EOI) Account was designed to further specify children's abilities when they are in the optional infinitive stage and help explain the grammatical deficits of children with SLI, who they claim stay in the OI stage for an extended period relative to their typically developing peers.

For GAE and other mainstream dialects of English, the OI/EOI Account predicts that children with and without SLI will show a relationship between their marking of subject case pronouns and their marking of finite verb forms. In addition, this account predicts that both groups will be more likely to produce objective case for subject pronouns when the main verb (or the auxiliary) of the clause is not marked for finiteness (e.g., *him get it*) than when it is (e.g., *him*

gets it). Using the 5a – 5d examples, this account predicts that young children should produce many utterances that are similar to (5a), (5c), and (5d), but not many utterances that are similar to (5b).

The OI/EOI Account is based on children who speak GAE and other mainstream dialects of English. It is unclear whether the OI/EOI Account and the relationship between children's marking of subject pronoun case and finite verb forms applies to children who speak nonmainstream dialects of English, such as AAE. As will be reviewed next, AAE allows optional marking of pronoun case and optional marking of finite verbs. Although optional marking for pronoun case and finite verbs in AAE is not random, the marking of pronouns and the marking of finite verbs appears unrelated based on the dialect literature that is available on these two structures. The current study provides a much needed direct test of this relationship in child AAE.

Pronoun case in AAE

According to Seymour et al. (1998), there are noncontrastive features in English, which include features of language that all dialects have in common, and contrastive features, which include the unique features that are not shared by all dialects. For many, but certainly not all scholars of AAE, the marking of pronouns is considered a contrastive feature of AAE (Oetting & McDonald, 2001; Washington & Craig, 1994; Wolfram, 1991). Drawing on Wolfram (1991), Brown (2017) discusses five different types of pronoun marking options that can occur in adult AAE, but not GAE. Specifically, adult AAE allows:

1. *Hisself* and *theirsself* as reflexive pronouns (e.g., *He did it all by hissself*).
2. First person singular personal dative pronouns (e.g., *I got me a doll house*).
3. *Them* as a demonstrative pronoun (e.g., *I like them toys*).

4. Objective case for subject pronouns, especially in compound noun phrases (e.g., *Me and my sister went shopping*).

5. Appositive pronouns (e.g., *Shali, she sat here*).

Although the above listed pronoun marking options of AAE are well documented, minimal research has examined AAE-speaking children's use of these various marking options or their pronominal systems in general. To fill this gap, Brown (2017) examined all pronouns produced by 96 AAE-speaking children (35 children with SLI; 61 TD children) while they each played with an adult examiner at their school. The children's language samples averaged over 200 complete and intelligible utterances and 16,592 pronouns were found within these samples. For the current study, two findings of Brown's work are relevant. First, Brown found that the majority (96%; 15,917/16,592) of the AAE-speaking children's pronouns involved overtly marked forms that were consistent with GAE forms. Brown classified these marking options as mainstream in nature (see Table 1).

Table 1. Mainstream pronoun marking options produced by AAE-speaking children

Pronoun Marking	Example	Rate of Use	
I	<i>I</i> like my shirt.	4445/4445	100%
Them	He has friends. He likes <i>them</i> .	543/543	100%
Him	Mike has a ball. I gave it to <i>him</i> .	535/536	> 99%
Her	Anne needed a pencil. I gave one to <i>her</i> .	721/725	> 99%
Me	I want that. Give it to <i>me</i> .	717/725	99%
My	I like <i>my</i> shirt.	2385/2457	97%
He	<i>He</i> asked his dad for help.	2875/2985	96%
They	<i>They</i> washed their hands.	1542/1607	96%
His	He asked <i>his</i> dad for help.	608/649	94%
She	<i>She</i> gave her mom a hug.	1449/1578	92%
Their	They washed <i>their</i> hands.	97/204	48%

Brown classified the children's other 4% of pronoun marking options as nonmainstream (see Table 2). As shown in the table, six different nonmainstream marking options were identified, and of these six, only three were produced greater than 1% of the time. It is also interesting to note that of the six, only one, objective case for subject pronouns, was listed by Wolfram as an adult AAE marking option. This marking option, which is the focus of the current project, was produced by the children at a rate of 3% (or 271 times out of a total of 10,724 subject pronouns).

Table 2. Nonmainstream pronoun marking options produced by AAE-speaking children

Pronoun Marking	Example	Rate of Use	
Subjective for Genitive	They washed <i>he/she/they</i> hands. [target = his/her/their]	108/855	13%
Objective for Genitive	They washed <i>him/them</i> hands. [target = his/their]	109/3313	3%
Objective for Subjective	<i>Him/her/them</i> asked his dad for help. [target = he/she/they]	271/10,724	3%
Subjective for Objective	I want that. Give it to <i>I</i> . [target = me]	5/737	1%
Genitive for Objective	I want that. Give it to <i>my</i> . [target = me]	3/737	< 1%
Alternative Gender	<i>He</i> gave her mom a hug. [target = she]	11/4564	< 1%

Secondly, Brown did not find differences between those with and without SLI in their rate of objective case marking for subject pronouns. As shown in Table 3, the TD group's average rate of objective case marking for subject pronouns was 1.1% (SD = 5.9%) and this was not statistically different from the SLI group's average rate of 2.76% (SD = 4.4%).

Table 3. Frequency and percentage of objective case for subject pronouns by group

Pronoun Pattern Type	SLI (n = 35)	TD (n = 61)
Objective for Subjective <i>Him for He, Her for She, Them for They, Me for I</i>	115/3836 = 3% ^a M = 2.76% ^b (4.4%) ^c	156/6888 = 2.3% M = 1.1% (5.9%)

a: Proportion of objective case out of total subject pronoun contexts

b: Average percentage of objective case out of each child's total subject pronoun contexts

c: Standard deviation

Finite Marking in AAE

In AAE, the marking of verbs for finiteness is optional (Green, 2002; Labov, 1996; Lanehart, 2015; Lee & Oetting, 2014; Newkirk-Turner, Oetting, & Stockman, 2016; Oetting, Lee, & Porter, 2013; Pruitt & Oetting, 2009; Roy et al, 2013; Seymour, Bland-Stewart, & Green, 1998; Wolfram, 1991). For example, finite BE forms (i.e., *am, is, are, was, were*) can be overtly

marked (e.g., *She is cooking*) or zero marked (e.g., *She Ø cooking*). Overt versus zero marking of these BE forms does not occur randomly, however. Instead, the marking is affected by linguistic features of the form, such as the person/number, tense, contractibility, and grammatical function of the BE form. In a study of 62 language samples, Roy et al. (2013) examined the influence of these linguistic features on the rate of AAE-speaking children's overtly marked BE forms. Results showed that the children overtly marked first person (e.g., *I am excited*) and past tense BE forms (e.g., *He was swimming*) at high rates (> 90%), with lower rates (59%) for BE forms involving *is* (e.g., *He is excited*), and even lower rates (27%) for BE forms involving *are*. In addition, the children's rates of overt marking were higher if the BE form served as a copula (e.g., *She is tired*) instead of an auxiliary (e.g., *She is walking*; 77% vs. 57%) and if it was produced in an uncontractible (e.g., *Is she tired?*) as compared to contractible context (e.g., *Chris is tired/She's tired?*; 70% vs. 53%). AAE also allows the use of singular BE forms with plural subjects (e.g., *They's walking*, *They was walking*). Both of these latter productions are often referred to as nonmainstream overt forms, and in multiple studies, they are included in counts of a child's mainstream overt forms (Garrity & Oetting, 2010; Newkirk-Turner et al., 2016; Roy et al., 2013). Finally, AAE allows the *be* form to serve as a copula or auxiliary when indicating a habitual or on-going state or action (e.g., *He be funny [all the time]*; *He be working [all the time]*). This *be* form is often written as *be*₂ to indicate that it is grammatically and semantically different from the main verb *be* form. Although this auxiliary is different from the other auxiliary BE forms (Green, 2002) and it is often removed from analyses of the other auxiliary BE forms, it will be included in the current study as a nonmainstream overtly marked auxiliary form.

Finite past tense verbs in AAE can also be overtly marked (e.g., *Last night, he walked home*), zero marked (e.g., *Last night, he walkØ home*), or overtly marked with other forms that

are not used to mark past tense in GAE. According to Wolfram (1991), some of these other nonmainstream forms include: alternative forms (e.g., *driven* as in *I driven there*, and *known* as in *I known that*), over-regularized forms (e.g., *dranked*, *forgaved*, *spoked*), and preterite had + verb forms (e.g., *Then, she had drank the lemonade*). To learn more about past tense marking in child AAE, Lee and Oetting (2014) examined language samples from 63 AAE-speaking children and found 3,984 past tense contexts. Of these, the majority (79%) were overtly marked with mainstream forms (e.g., *walked*, *jumped*, *ran*, *fell*), with 10% zero marked (e.g., *walk*, *jump*, *run*, *fall*) and 11% overtly marked with nonmainstream forms (e.g., *driven*, *fallled*, *had drank*). In addition, various scholars of AAE have noted that the phonetic properties of the verb (i.e., the final phoneme of the verb) can also influence the rate at which an AAE speaker overtly marks or zero marks past tense (Green, 2001). In a study of 45 AAE-speaking children and using probe data rather than language samples, children's rates of overt marking for past tense were higher with verbs ending in a vowel or glide (e.g., *fly*) than with verbs ending in a consonant (e.g., *jump*; Pruitt & Oetting, 2009). This finding was documented for both simple past tense forms (e.g., *he brushed a dog*) and past participle forms (e.g., *the dog was brushed*).

Finally, finite third person singular, which is also referred to as verbal –s in the dialect literature, can also be optionally marked in AAE as overtly marked (e.g., *Beyoncé wears purple socks*) or zero marked (e.g., *Beyoncé wear purple socks*). To learn more about this structure in child AAE, Cleveland and Oetting (2013) examined language samples of 14 AAE-speaking children with SLI and 12 AAE-speaking TD children. These children produced 411 verbal s- contexts, and these were coded as overtly marked (e.g., *Today he walks*) or zero marked (e.g., *Today, he walk*). Unlike the results for auxiliary BE and past tense, results showed that the majority (~80%) of the children's verbal –s contexts were zero marked. In addition, the average

rate at which the children with and without SLI zero marked verbal –s did not differ from each other (SLI $M = 14.07$, $SD = 16.69$ vs. TD $M = 21.42$, $SD = 16.44$). For both AAE groups, the children overtly marked *have* at higher rates than irregular verbs *do* and *say* and regular verbs (e.g. *cooked*, *washed*). AAE-speaking children also overtly marked DO contexts without negation (e.g., *he do/does...*) at higher rates than DO contexts with negation (e.g., *he doesn't/he don't...*).

From these results, one can conclude that child AAE allows optional marking of pronoun case and optional marking of finite verbs, but the variables that seem to affect the marking of each of these structures appear unrelated to each other. AAE speakers' use of objective case for subject pronouns appears to be related to the type of noun phrase (i.e., compound noun phrases, such as *Me and my sister went shopping*), whereas their marking of finite verbs (i.e., copula and auxiliary BE, past tense, and verbal –s) has been tied to the type of finite form (e.g. am vs. is vs. are; regular vs. irregular; vowel or glide vs. consonant as final phoneme, etc.), and type of linguistic features surrounding the finite form (e.g., +/- negation). Given this, the marking of subject pronoun case does not appear to be related to the marking of finite verb forms in AAE.

Summary

Extensive research has been conducted on GAE-speaking children's acquisition of subject pronoun case marking, and according to the OI/EOI Account of Rice et al. (1996), there is a relationship between children's development of subject case pronouns and their marking of finite verb forms. This theory asserts that children who produce objective case for subject pronouns (e.g., *him* for *he*) will be more likely to produce these pronoun forms in utterances that are not overtly marked for finiteness. However, the OI/EOI Account was developed for children who speak GAE or other mainstream dialects of English. The nonmainstream dialect of AAE

allows optional marking of both subject pronouns and finite verb forms, but the linguistic variables that have been found to affect AAE-speaking children's marking of subject pronoun case do not appear to be the same as those that affect their marking of finite verbs. Given this, it appears unlikely that a relationship between subject pronoun case and finite verb marking exists in child AAE. The goal of the current study was to directly test this hypothesis by examining the relationship between children's case marking of subject pronouns and finite verb forms in AAE. In addition, I wanted to know if the relationship between subject case marking and finite verb marking (if one existed in AAE) was the same for children with and without SLI. Based on the GAE literature which has shown the grammars of children with SLI to be qualitatively similar to those without SLI (e.g., Loeb & Leonard, 1991), I predicted that the relationship between the AAE-speaking children's marking of subject pronouns and finite verbs would be the same for the two groups.

Research Questions

In the current study, I examined the pronominal system of AAE-speaking children and the specific prediction of the OI/EOI Account for AAE child speakers by focusing on data from children who produced at least one subject pronoun with objective case within their language samples. Using these data, the questions guiding the study were:

1. What is the relationship between AAE-speaking children's marking of subject pronouns and finite verb forms?
2. Is the relationship between the marking of these two grammatical structures the same for AAE-speaking children with and without SLI?

CHAPTER 2. METHODS

Data

Although Brown (2017) identified 56 language samples as presenting a subject pronoun with objective case, I was able to find only 53 samples as having one of these pronouns (i.e., three others had objective case marking but the pronoun did not serve as the subject of a clause (e.g., *I like them balls*). These 53 subject pronouns with objective case were selected for the current study. The samples had been elicited from children as part of a larger study (Oetting, Hegarty, & McDonald, 2009) and previously studied by Brown (2017). Prior to the data collection phase of the study, IRB approval, caregiver consent, and child assent were obtained. The children's ages ranged from 61 to 74 months; 22 (42%) were males and 31 were females. All children attended public kindergartens in a rural area of southeastern Louisiana. The children were categorized into two groups: children with SLI or TD. Classification was determined by three standardized assessments: the *Primary Test of Nonverbal Intelligence* (PTONI; Ehrler & McGhee, 2008), which was a measure of nonverbal intelligence; the *Goldman-Fristoe Test of Articulation* (GTFA-2; Goldman & Fristoe, 2000), which was a measure of the children's articulation abilities at the single word level; and the syntax subtest of the *Diagnostic Evaluation of Language Variation-Norm Referenced* (DELV-NR; Seymour, Roeper, & de Villers, 2005). Children classified as SLI scored ≥ -1.2 *SD* below the normative mean on the PTONI and > -1 *SD* on the GTFA, but ≤ -1 *SD* on the DELV-NR. Children classified as TD scored ≥ -1 *SD* on all three assessments. See Table 4 for participant characteristics.

Tables 4. Participant characteristics

Group	Age	PTONI	GFTA-2	DELV-NR
SLI (<i>n</i> = 23)	67.04 ^a 3.86 ^b 61-74 ^c	94.30 (10.93) 82-125	105.17 (4.75) 94-113	4.70 (.98) 3-7
TD (<i>n</i> = 30)	65.53 3.45 60-71	99.57 (10.91) 84-130	107.90 (3.81) 97-113	9.63 (1.38) 8-14
Combined (<i>n</i> = 53)	66.91 3.68 60-74	97.28 (11.13) 82-130	106.72 (4.41) 94-113	7.49 (2.75) 3-14

a: Average standardized score; b: Standard deviation; c: Range

Language Samples

All language samples were collected during play at the child’s school in a small, quiet room during a 20-minute session. Materials, such as a toy gas station, baby doll set, picnic set, and three Apricot pictures (Arwood, 1985) were used to facilitate conversation. The examiners also followed the child’s lead and utilized prompts (e.g., *I bet you’ve been to the toy store before*). All language samples were audio recorded, which allowed for transcription and coding at a later time according to the Systematic Analysis Language Transcription (SALT; Miller & Iglesias, 2012), and Oetting et al. (2014). For the 53 samples studied here, a total of 13,384 complete and intelligible (C& I) utterances were collected, which averaged 239 (*SD* = 50.86) per language sample.

Previously, graduate students coded the samples for 11 pronouns (i.e., *he, she, his, her, him, they, them, their, I, me, my, and us*) using SALT. Brown examined the reliability of the student’s coding by having a second student code the pronouns in 11 (20%) of the samples. Out of 2,093 pronouns identified, the students agreed on 2,081 pronouns with a rate of agreement that is extremely high at 99%. For the 96 samples studied by Brown (2017), the total number of subject pronouns in the sample was 10,174, with 256 categorized as objective case for subject

pronouns. Recall that of these 256, I identified 253 as being subject pronouns for the current analysis.

For the current study, I extracted the 253 utterances from the samples of the 53 children who produced them in addition to 171 randomly selected utterances with subject pronouns with subjective case marking. As is evident, the number of utterances with objective and subjective case marking did not match for these children. The mismatch occurred because, although random, I selected utterances with pronouns with subjective case that matched the gender and number (masculine, feminine, singular, plural) of the subject pronouns with objective case. Given this, all samples did not have subject pronouns with subjective case that could be used as matches for the subject pronouns with objective case.

Then, for the 424 (253 + 171) utterances extracted, I coded the pronoun for type of case (i.e., *object* vs. *subjective*) and the verb for type of verb marking (i.e., overtly-marked finite vs. zero-marked nonfinite or other). In addition, for the overtly marked finite forms, I coded them as mainstream overt (e.g., *jumped*, *ate*) vs. nonmainstream overt (e.g., *had jumped*, *ated*, *verbal -s* with plural subject, *be₂*, *is* with plural subject, *was* with plural subject). Tables 5a and 5b show examples of how the utterances were coded.

Table 5a. Example of data coding for objective case

Type of Verb Marking	Example
Objective Zero Marked	<i>Her waste/*3s mawmaw/*z yogurt</i> singular, third, feminine
	<i>Her go/*3s with him.</i> singular, third, feminine
	<i>Now her sit/*3s right here.</i> singular, third, feminine
	<i>Him *was fixing to punch him</i> singular, third, masculine
Objective Mainstream Overtly Marked	<i>And him was laugh/ing.</i> singular, third, masculine
	<i>Him saw two boy/s fight/ing.</i> singular, third, masculine
	<i>Me and my brother took a picture.</i> plural, masculine, unknown
	<i>And then her had a brand-new phone.</i> singular, third, feminine
Objective Nonmainstream Overtly Marked	<i>Her be be/ing bad (at the) at home.</i> singular, third, be ₂
	<i>Them was fight/ing.</i> plural third; was with plural subject
	<i>Me and Mya play/3s babydoll/s.</i> singular, third in noun compound, verbal -s with plural subject
Objective Other	<i>Me (and my) and my brother.</i> singular, first in noun compound, no verb in utterance
	<i>Me and my brother sleep on there.</i> singular, first in noun compound, no overt finite marking required
	<i>Me and my momma, we go to Texas.</i> singular first in noun compound, no overt finite marking required
	<i>Me and my cousin.</i> singular, first in noun compound, no verb in utterance

Table 5b. Example of data coding for subjective case

Type of Verb Marking	Example
Subjective Zero Marked	<i>Well her get/*3s it when she ride/*3s fast</i> singular, third, feminine
	<i>I *have got another one to fill up.</i> singular, first
	<i>They *have got alot of stuff to eat.</i> plural, first
Subjective Mainstream Overtly Marked	<i>He cook/*3s chicken.</i> singular, third, masculine
	<i>I found a cup.</i> singular, first
	<i>He play/3s game/*s.</i> singular, third, masculine
Subjective Nonmainstream Overtly Marked	<i>I wash/ed it with my uncle.</i> singular, first
	<i>He ain't mean at all.</i> singular, first, masculine, use of copula ain't
	<i>I had got a babydoll house and a Barbie car.</i> singular, first, preterite had + verb
Subjective Other	<i>She had got a soft blanket and a computer and a iphone.</i> singular, third, feminine, preterite had + verb
	<i>I play on the block/s thing and you have to let the block/s go.</i> singular, first, overt finite marking not required
	<i>I don't know.</i> singular, first, overt finite marking not required
	<i>I like to play with toy/s...</i> singular, first, overt finite marking not required
	<i>And he can go in this one.</i> singular, first, overt finite marking not required

Reliability

To examine the reliability of the pronoun case and verb coding, all 253 utterances with objective case were coded by a second examiner and checked against the originally coded data. Although this reflects 60% of the coded data for the current project, reliability of coding was not checked on the utterances with subjective case. For the 253 utterances, there were a total of 506

opportunities for disagreement, with 253 pronouns and 253 verbs within the context. Between the two examiners, there was a total of 47 disagreements, indicating 9.3% of disagreements (or > 90% agreement) between the examiners. Thus, coding was deemed reliable.

Nevertheless, to learn more about the coding disagreements, I examined them by type of error. The disagreements that were most common involved the marking of verb finiteness. The four most common of these included the coding of verb finite marking with: nonmainstream *had* + *verb* forms, nonmainstream plural *subject* + *was* forms, nonmainstream appositive forms, and mainstream *plural* + *present tense* verbs (which should be coded as other, because overt marking of finiteness is not required). Example utterances of these types of disagreements are presented in Table 6. These coding disagreements totaled 28, or 60% of the 47 disagreements.

Table 6. Examples of common coding disagreements

Common Disagreements	Examples	Frequency
Finite Marking involving Had + Verb	And me and my sister <i>had play/ed</i> my dsi.	6
Finite Marking involving nonmainstream plural subject + was	We <i>was take/ing</i> picture/s on my other.	7
Finite Marking when utterances included an appositive pronoun	Because me and her, <i>we *are</i> like very very close together.	7
Finite Marking involving plural subjects and present tense	Them <i>fight</i> .	8
Total		28

CHAPTER 3. RESULTS

Frequencies of Pronoun Case Marking and Verb Marking

As noted in the methods, 53 children contributed data to the study, and a total of 424 utterances with pronouns from the language samples were selected for analysis (see Table 7). These included 253 utterances with pronouns marked for objective case and 171 utterances with pronouns marked for subjective case. However, as was also noted in the methods, many of the main verbs within these utterances were coded as other, because they did not require overt finite marking. As shown in Table 7, of the 253 objective pronouns, 65 were coded as other, which left 188 for analysis. Similarly, of the 171 subjective pronouns, 65 were coded as other, which left 106 for analysis. Thus, the total number of utterances with pronouns and verbs analyzed was 294 (188 + 106).

Table 7. Distribution of pronoun marking

Pronoun Type	Frequency
Pronouns with objective marking	253
Pronouns with objective case with verbs classified as other	65
Pronouns with objective case that could be analyzed	188
Pronouns with subjective case	171
Subjective case pronouns with verbs classified as other	65
Pronouns with subjective case that could be analyzed	106

Table 8 lists the total number of overtly marked finite verbs produced within the utterances that included pronouns marked for objective and subjective case. As shown, the 188 verbs that were produced with objective case marking on the subject pronoun included 95 with overt finite marking (e.g., *Him walks*) and 93 with zero nonfinite marking (e.g., *Him walk*). Similarly, the 106 verbs that were that were produced with subjective case marking on the

subject pronoun included 63 with overt finite marking (*e.g., He plays games.*) and 43 with zero nonfinite marking (*e.g., He cook chicken*). Inspection of these data indicate that both groups produced both types of pronominal case marking and both types of verb marking.

Table 8. Verb marking by type of pronoun case marking

	Total
Objective Case	
Overtly Marked Finite	95
Zero Marked Nonfinite	93
Subjective Case	
Overtly Marked Finite	63
Zero Marked Nonfinite	43
Total	294

Table 9 provides the frequencies of each type of verb marking by type of pronoun case marking in a 2 X 2 contingency table, and Table 10 provides this same information as percentages. As shown in Table 10, the children overtly marked finite verbs 51% and 59% of the time when they produce a subject pronoun with objective and subjective case, respectively. When tested by a chi-square, there was not a significant relationship between the children’s marking of pronoun case and their finite marking of verbs, $\chi^2 (1, 294) = 2.16, p = .146$.

Table 9. Frequencies of verb marking by type of pronoun case marking

	Overt Finite Marking	Zero Nonfinite Marking	Total
Objective Case	95	93	188
Subjective Case	63	43	106
Total	158	136	294

Table 10. Percentages of verb marking by Type of pronoun case marking

	Overt Finite Marking	Zero Nonfinite Marking
Objective Case	51	49
Subjective Case	59	41

Next, I examined these same data with the groups separated. Although 53 children contributed data to the study, 23 were classified as SLI and 30 were classified as TD. As shown in Tables 11 and 12, although the TD group produced more utterances that could be analyzed than the SLI group, there were more children in this group. When group size was controlled, the children's rate of analyzed utterances was similar (SLI $134/23$ participants = 5.83; TD $160/30$ participants = 5.33).

Visual inspection of Table 13 suggests that the SLI group's overt marking of finite verbs was not as related to their marking of pronoun case as was the TD group's. To test this observation statistically, two chi-square tests were completed, one for each group. The SLI group overtly marked finite verbs for the pronouns marked with objective and subjective case 45% and 42%, respectively. This difference was not statistically significant, $\chi^2(1, 134) = .169, p = .71$. In contrast, the TD group overtly marked finite verbs with subject pronouns marked with objective and subjective case 55% and 74%, respectively. This difference was statistically significant, $\chi^2(1, 160) = 5.8, p = .018$. In other words, the TD group's case marking of subject pronouns was related to their overt marking of finite verb forms. The direction of the relationship indicated that they were more likely to overtly mark the finite verb if they produced subjective case marking rather than objective case marking for their subject pronoun.

Table 11. Distribution of pronoun marking by group

Pronoun Type	SLI	TD	Frequency
Pronouns with objective marking	110	143	253
Pronouns with objective case with verbs classified as other	14	41	65
Pronouns with objective case that could be analyzed	86	102	188
Pronouns with subjective case	74	97	171
Subjective case pronouns with verbs classified as other	26	39	65
Pronouns with subjective case that could be analyzed	48	58	106

Table 12. Frequencies of verb marking by type of pronoun case marking and group

	Overt Finite Marking	Zero Nonfinite Marking	Total
SLI			
Objective Case	39	47	86
Subjective Case	20	28	48
Total	59	75	134
TD			
Objective Case	56	46	102
Subjective Case	43	15	58
Total	99	61	160

Table 13. Percentages of verb marking by type of pronoun case marking and group

	Overt Finite Marking	Zero Nonfinite Marking
SLI		
Objective Case	45	55
Subjective Case	42	58
TD		
Objective Case	55	45
Subjective Case	74	26

Type of Overtly Marked Finite Verb: Mainstream vs. Nonmainstream Forms

Recall in the methods, that the AAE-speaking children can produce mainstream and nonmainstream overt finite verb forms. These forms are well attested in the AAE dialect literature, and examples documented in the current study included for mainstream overt: *I found a cup*, *Him saw two boy/s fight/ing*, and *Her had a brand-new phone*, and for nonmainstream overt: *Her be be/ing bad at home*, *Me and Mya play/3s babydoll*, and *He ain't mean at all*. As shown in Table 14, the children produced 158 overt forms (158 + 136 zero forms = 294), and of these, 103 included mainstream overt finite verb marking and 55 included nonmainstream overt finite verb marking. As also shown in Table 15, nonmainstream overt finite verb forms were produced more often when the subject pronoun was marked with subjective case than objective case (79% vs. 56%). To test the relationship between the children's use of subjective case marking and nonmainstream overt finite verb forms, a chi square analysis was again completed. Results indicated that the relationship was statistically significant, $\chi^2(1, 158) = 9.28, p = .004$.

Table 14. Frequencies of mainstream and nonmainstream overt finite verb marking

	Mainstream Overt Finite Forms	Nonmainstream Overt Finite Forms	Total
Objective Case	53	42	95
Subjective Case	50	13	63
Total	103	55	158

Table 15. Percentages of mainstream and nonmainstream overt finite verb marking

	Mainstream Overt Finite Forms	Nonmainstream Overt Finite Forms
Objective Case	56	44
Subjective Case	79	21

Finally, Tables 16 and 17 present the same data as Tables 14 and 15, but they are separated by the SLI and TD groups. As shown in Table 17, both groups produced mainstream overt finite

verb forms more often when the subject pronoun was marked with subjective case than objective case, but the difference was greater for the TD group (SLI: 65% vs. 56%; TD 86% vs. 55%). To test the relationships between the children's subjective pronoun case marking and mainstream overt finite verb forms, two chi squares were completed. Whereas a relationship was not present for the SLI group, $\chi^2(1, 59) = .40, p = .52$, it was for the TD group, $\chi^2(1, 99) = 10.65, p = .001$. In other words, the TD group, but not the SLI group, showed a relationship between their mainstream subjective case marking of subject pronouns and their mainstream overt marking of finite verbs.

Table 16. Frequencies of mainstream and nonmainstream overt finite verb marking by group

	Mainstream Forms	Nonmainstream Forms	Total
SLI			
Objective Case	22	17	39
Subjective Case	13	7	20
TD			
Objective Case	31	25	57
Subjective Case	37	6	43
Total	103	55	158

Table 17. Percentages of mainstream and nonmainstream overt finite verb marking by group

	Mainstream Forms	Nonmainstream Forms
SLI		
Objective Case	56	44
Subjective Case	65	35
TD		
Objective Case	55	45
Subjective Case	86	14

CHAPTER 4. DISCUSSION

The purpose of the current study was to examine the relationship between AAE-speaking children's marking of subject pronouns and finite verb forms and determine if a relationship existed and if it was the same for children with and without SLI. The following two research questions guided the study: 1) What is the relationship between AAE-speaking children's marking of subject pronouns and finite verb forms? and 2) Is the relationship between the marking of these two grammatical structures the same for AAE-speaking children with and without SLI?

When utterances with mainstream and nonmainstream overtly marked finite verbs were analyzed together and the TD and SLI groups were analyzed together, results did not reveal a relationship between the AAE-speaking children's marking of subject pronoun case and finite verb forms. Specifically, of the 294 utterances analyzed, the children overtly marked finite verb forms 51% and 59% of the time when the subject pronouns were marked with objective and subjective case, respectively. These proportions were not significantly different from each other. However, when the data were examined for the SLI and TD groups separately, a relationship was observed for the TD (overt marking with subjective case 74% vs. overt marking with objective case 55%), but not the SLI group. In addition, the AAE-speaking children who were typically developing showed a relationship between their subjective pronoun case marking and their use of mainstream overt finite forms as compared to their use of nonmainstream overt finite verb forms (86% vs. 55%). The AAE-speaking children with SLI did not show this relationship.

Findings as Related to Previous Studies

According to the OI/EOI Account by Rice et. al. (1996), there is a relationship between children's case marking of subject pronouns and overt marking of finite verb forms in GAE-

speaking children. This account was supported by data from Rice et al. (1996) and further supported by studies conducted by Loeb and Leonard (1991) and Fitzgerald (2014). Moreover, Loeb and Leonard (1991) found the relationship to exist for both GAE-speaking children with and without SLI. Results from the current study also revealed a relationship between case marking of subject pronouns and overt marking of finite verb forms in AAE, but for only those children who were developing language typically. A relationship between subject pronoun case and finite verb forms was not observed for the AAE-speaking children with SLI.

As discussed in the literature review, the nonmainstream dialect of AAE allows for optional marking of both subject pronouns and finite verb forms, and the variables that influence an AAE speaker's selection of pronoun case and finite verb marking do not appear to be the same. Given this, I predicted that a relationship between the children's subject pronoun case marking and finite verb marking would not be observed. Contrary to my prediction, relationships were observed for the AAE-speaking children who were typically developing. For this group, they were more likely to overtly mark finite verbs when they produced a subject pronoun with subjective case than objective case. In addition, they were more likely to produce a mainstream overt finite verb form when they produced a subject pronoun with subjective case than with objective case. Although the first relationship has been documented in GAE speakers, the second has not, because GAE speakers do not produce nonmainstream overt forms. Together, these findings show that the relationship between subject pronoun case and overt finite verb marking in AAE is not the same as it is in GAE, although in both dialects a relationship exists.

I also predicted that any relationship found between the AAE-speaking children's marking of subject pronouns and finite verb forms would be observed for both the SLI and TD groups. Contrary to my prediction, a relationship between the children's case marking of subject

pronouns and finite verb marking was only found for those in the TD group. Interestingly, the pattern of results for type of overt marking in the SLI group was consistent with the TD group's, but the SLI group's overt marking of finite verb forms was low for both types of subject pronoun case marking (subjective case with mainstream overt finite verb marking 65% vs. objective case with nonmainstream overt finite verb marking 56%). Although not discussed in the literature review, GAE-speaking children with SLI have been repeatedly shown to overtly mark finite verbs at lower rates than their TD peers (Rice et al., 1995; 1998; Rice & Wexler, 1996). The current AAE SLI group's low rate of overtly marked finite verbs is consistent with the GAE SLI literature.

Clinical Implications

If the findings reported here are replicated and extended to larger groups of children, the findings may be useful for better understanding AAE-speaking children's development of language and differences between those with and without SLI in AAE. Children in the AAE TD group studied here showed a relationship between their case marking of subject pronouns and their overtly marked finite verbs, and within their overtly marked finite verbs, a relationship between their subject pronoun case marking and the type of overt form (mainstream vs. nonmainstream) they produced. Children in the SLI group did not show these relationships. To aid clinical practice, I created Table 18 and shaded the cells that profile the marking patterns of the AAE-speaking TD group. Assuming the findings replicate and extend to larger groups of children, clinicians may be able to use Table 18 to examine relationships between AAE-speaking children's case marking of subject pronouns and their marking of finite verbs. Patterns of marking that are consistent with the grey cells would indicate a relationship between a child's pronoun system and verb system, and possibly suggest a system that is typically developing.

Likewise, patterns of marking that are inconsistent with the grey cells in Table 18 may be cause for concern as they may reflect a linguistic system that is less organized, or even perhaps impaired. These atypical patterns would possibly include either high rates of nonmainstream pronominal objective case (i.e., *me, him, her, them*) with high rates of mainstream overtly marked finite forms (e.g., *ate, drank, is walking*) or high rates of mainstream pronominal subjective case (e.g., *I, he, she, they*) with high rates of nonmainstream overtly marked finite verbs (e.g., *ated, had ated, drunk, be walking*) or zero forms (i.e., *eat, drink, Ø walking*).

Table 18: Relationships between pronoun case marking and the marking of finite verb forms

	Nonmainstream Verb Overt Finite (e.g., <i>ated, had ate, drunk, be walking</i>)	Mainstream Verb Overt Finite (e.g., <i>ate, drank, is walking</i>)	Zero Verb Finite Marking (e.g., <i>eat, drink, Ø walking</i>)
Nonmainstream Pronoun Objective Case (<i>me, him, her, them</i>)	<i>Him ated.^a</i> <i>Her had ated.</i> <i>Him drunk</i> <i>Her be walking.</i>	<i>Him ate.</i> <i>Her drank.</i> <i>Him is walking.</i>	<i>Him eat.^a</i> <i>Her drink.</i> <i>Him Ø walking.</i>
Mainstream Pronoun Subjective Case (<i>I, he, she, they</i>)	<i>He ated.</i> <i>She had ated.</i> <i>He drunk.</i> <i>She be walking.</i>	<i>He ate.^a</i> <i>She drank.</i> <i>He is walking.</i>	<i>He eat.^a</i> <i>She drink.</i> <i>He Ø walking.</i>

a: patterns of TD AAE-speaking children

In addition, this study helped further document the different combinations of mainstream and nonmainstream subject pronoun case marking and finite verb marking produced by AAE-speaking children. Clinicians can refer to Table 5a, 5b, and 18 for examples of overtly marked mainstream and nonmainstream subject pronouns and finite verb forms. These tables may assist clinicians in understanding differences between mainstream and nonmainstream subject pronouns and finite verb marking in AAE.

Limitations

There were several limitations to the current study. First, the number of children was low and unequal for the SLI and TD groups, with 23 children classified as SLI and 30 children classified as TD. Second, the number of pronouns that could be analyzed was low and unequal for the SLI and TD groups, with 134 pronouns produced from children with SLI and 160 produced from TD children. Third, there was a significant amount of data lost, specifically 188 utterances, due to verbs classified as other. In hindsight, the verbs should have been coded within the utterances early on to exclude all utterances with verbs classified as other. A great deal of time was spent extracting and coding utterances that eventually were excluded from the analyses.

Fourth, the children were in kindergarten (with an average age of 5 years), and most of the studies that have examined GAE-speaking children's marking of subject pronouns have included younger children, aged two to three years. A stronger relationship between the children's case marking of subject pronouns and their marking of verb finite forms might have been observed had the children studied here been between two and three years of age. Fifth, as reported in the methods, reliability of the coding was checked for utterances with pronouns marked with objective case. Reliability of the coding was not checked for utterances with pronouns marked with subjective case. Sixth, the children's subject pronouns were not examined by their gender and/or number. If the pronouns had been examined by these variables, it is possible that other relationships in the data may have been detected. As the final limitation, I ran chi square analyses. Although sociolinguists often use chi square analyses with corpus data, an assumption of a chi square is that the data are independent. This was not always the case here as some of the participants contributed more than one coded subject pronoun to the analyses.

Future Directions

Future studies should increase the number of participants studied and collect more data from each participant. In addition, future studies should target younger AAE-speaking participants. Lastly, the participants from the current study spoke a rural dialect of AAE. It would be interesting to analyze children who speak other varieties of AAE or other dialects of English that are spoken elsewhere to see if the findings observed here generalize to these other dialect groups.

Conclusion

In conclusion, the current study showed a relationship between the marking of subject pronouns and overtly marked verb finite forms in AAE-speaking children who were typically developing, but not those with SLI. In addition, the TD group showed a relationship between their subjective case marking of subject pronouns and their use of mainstream overtly marked finite verb forms as compared to their use of nonmainstream overtly marked finite forms. These findings indicate that relationships between subject case pronoun marking and finite verb marking exist for children learning AAE who are typically developing. However, the relationship in AAE is not identical to what has been documented for children learning GAE, because those who speak GAE do not produce nonmainstream overt finite verb forms. If the findings replicate and are extended to other groups, the findings may indicate that speech-language pathologists should look for relationships to exist between AAE-speaking children's case marking of subject pronouns and their overt marking of finite verb forms.

References

- Brown, G. (2017). *Pronoun marking in African American English-speaking children with and without specific language impairment*. (Master's thesis). Louisiana State University.
- Ehrler, D. J., & McGhee, R. L. (2008). *Primary Test of Nonverbal Intelligence*. Austin (Tex.): Pro-Ed.
- Fitzgerald, C. E. (2014). *Uniformity of pronoun case errors in typical development: The association between children's first person and third person case errors in a longitudinal study* (Doctoral dissertation). University of Illinois at Urbana–Champaign.
- Fitzgerald, C. E., Rispoli, M., & Hadley, P. A. (2017). Case marking uniformity in developmental pronoun errors. *First Language*, 37(4), 391-409. doi:10.1177/0142723717698007
- Garrity, A. W., & Oetting, J. B. (2010). Auxiliary BE production by African American English-speaking children with and without specific language impairment. *Journal of Speech Language and Hearing Research*, 53(5), 1307-1320. doi:10.1044/1092-4388(2010/09-0016
- Goldman, R., & Fristoe, M. (2000). *Goldman Fristoe 2 Test of Articulation*. Circle Pines, MN: American Guidance Service.
- 47 IBM. (2013). IBM SPSS Statistics for Windows (Version 22.0). Armonk, NY: IBM Corporation.
- Green, L. (2002). *African American English*. New York: Cambridge University Press.
- Hadley, P. A., Rispoli, M., Holt, J. K., Fitzgerald, C., & Bahnsen, A. (2014). Growth of finiteness in the third year of life: Replication and predictive validity. *Journal of Speech, Language and Hearing Research*, 57, 887–900.
- Kirjavainen, M., Theakston, A., & Lieven, E. (2009). Can input explain children's me-for-I errors? *Journal of Child Language*, 36(05), 1091-1114. doi:10.1017/s0305000909009350
- Labov, W., Cohen, P., Robins, C., & Lewis, J. (1968). *A study of the non-standard English of Negro and Puerto Rican speakers in New York city*. Cooperative Research Project, 1, No. 3288. New York: Columbia University.
- Labov, W. (1969). Contraction, deletion, and inherent variability of the English copula. *Language*, 45, 715-762.
- Lanehart, S. (Ed.). (2015). *The oxford handbook of African American language*, New York, NY; Oxford University Press.

- Lee, R. M., Oetting, J. B., & Hegarty, M. (2014). Zero marking of past tense in child African American English. *Perspectives of the ASHA Special Interest Groups: SIG 1 Language Learning and Education*, 21, 173-181. doi: 10.1044/lle21.4.173
- Loeb, D. F., & Leonard, L. B. (1991). Subject case marking and verb morphology in normally developing and specifically language-impaired children. *Journal of Speech Language and Hearing Research*, 34(2), 340-346. doi:10.1044/jshr.3402.340
- Miller, J. F., & Iglesias, A. (2012). *Systematic Analysis of Language Transcripts* (Version 2012). Middleton, WI: SALT Software, LLC.
- Newkirk-Turner, B. L., Oetting, J. B., & Stockman, I. J. (2016). Development of auxiliaries in young children learning African American English. *Language Speech and Hearing Services in Schools*, 47, 209-224. doi:10.1044/2016_lshss-15-0063
- Oetting, J.B., Hegarty, M., & McDonald, J. (2009). *Tense and agreement in SAAE and SWE by dialect density and SLI status*. R01 DC009811. National Institutes of Deafness and other Communication Disorders.
- Oetting, J. B., Cleveland, L. H., Garrity, A. W., Gregory, K. D., Lee, R. M., ... Rodrigue, K. (2014). *Language sample transcription and coding manual*. (Unpublished Lab Manual). Louisiana State University.
- Oetting, J., Lee, R., & Porter, K. (2013). Evaluating the grammars of children who speak nonmainstream dialects of English. *Topics in Language Disorders*, 2, 140–151.
- Oetting, J., & McDonald, J. (2001). Nonmainstream dialect use and specific language impairment. *Journal of Speech, Language, and hearing Research*, 44, 207–223.
- Oshima-Takane, Y., & Derat, L. (1996). Nominal and pronominal reference in maternal speech during the later stages of language acquisition: A longitudinal study. *First Language*, 16, 319–338.
- Pine, J. M., Rowland, C. F., Lieven, E. V., & Theakston, A. L. (2005). Testing the agreement/tense omission model: Why the data on children's use of non-nominative 3psg subjects count against the ATOM. *Journal of Child Language*, 32(2), 269-289. doi:10.1017/s0305000905006860
- Pruitt, S., & Oetting, J. (2009). Past tense marking by African American English-speaking children reared in poverty. *Journal of Speech, Language and Hearing Research*, 52, 2–15.
- Radford, A., (1997). *Syntactic Theory and the Structure of English*. Cambridge: Cambridge University Press.

- Rice, M. L., Wexler, K., & Cleave, P. L. (1995). Specific language impairment as a period of extended optional infinitive. *Journal of Speech Language and Hearing Research, 38*(4), 850-863. doi:10.1044/jshr.3804.850
- Rice, M. L., & Wexler, K. (1996). Toward Tense as a Clinical Marker of Specific Language Impairment in English-Speaking Children. *Journal of Speech Language and Hearing Research, 39*(6), 1239-1257. doi:10.1044/jshr.3906.1239
- Rice, M. L., Wexler, K., & Hershberger, S. (1998). Tense over time. *Journal of Speech Language and Hearing Research, 41*(6), 1412-1432. doi:10.1044/jslhr.4106.1412
- Rispoli, M. (1994). Pronoun case overextensions and paradigm building. *Journal of Child Language, 21*(01), 157-172. doi:10.1017/s0305000900008709
- Rispoli, M. (1998a). Patterns of pronoun case error. *Journal of Child Language, 25*, 533-554.
 Rispoli, M. (1998b). Me or my: Two different patterns of pronoun case errors. *Journal of Speech, Language and Hearing Research, 41*, 385-393.
- Rispoli, M. (2005). When children reach beyond their grasp: Why some children make pronoun case errors and others don't. *Journal of Child Language, 32*(1), 93-116. doi:10.1017/s0305000904006658
- Roy, J., Oetting, J. B., & Moland, C. W. (2013). Linguistic constraints on children's overt marking of BE by dialect and age. *Journal of Speech Language and Hearing Research, 56*, 933-944.
- Seymour, H. N., Bland-Stewart, L., & Green, L. J. (1998). Difference versus deficit in child African American English. *Language Speech and Hearing Services in Schools, 29*(2), 96-108. doi:10.1044/0161-1461.2902.96
- Seymour, H. N., Roeper, T., & deVilliers, I. (2005). *Diagnostic Evaluation of Language Variation: Norm Referenced*. San Antonio, TX; Minneapolis, MN: Pearson.
- Schütze, C., & Wexler, K. (1996). Subject case licensing and English root infinitives. In A. Stringfellow, D. Cahana-Amitay, E. Hughes, & A. Zukowski (Eds.). *Proceedings of the 20th Annual Boston University Conference on Language Development* (Vol. 2, pp. 670-681). Somerville, MA: Cascadilla Press.
- Vainikka, A. (1993). Case in the development of English syntax. *Language Acquisition, 3*, 257-325.
- Washington, J. A., & Craig, H. K. (1994). Dialectal forms during discourse of poor, urban, African American preschoolers. *Journal of Speech and Hearing Research, 37*(4), 816 - 823. doi:10.1044/jslhr.3704.816

- Wexler, K., Schütze, C. T., & Rice, M. (1998). Subject case in children with SLI and unaffected controls: Evidence for the Agr/Tns omission model. *Language Acquisition*, 7, 317–344.
- Wiseman Weil, L., & Leonard, L. (2016). Case assignment in English-speaking children: A paired priming paradigm. *Journal of Child Language*. 44, 943-967.
<https://doi.org/10.1017/S0305000916000337>
- Wolfram, W. (1991). *Dialects and American English*. Englewood Cliffs, NJ: Prentice Hall.
- Wolfram, W., & Ward, B. (2007). *American voices: how dialects differ from coast to coast*. Malden, MA: Blackwell.

VITA

Emily Claire Sossaman graduated from Louisiana State University with a Bachelor of Arts in Communication and Sciences Disorders in May of 2017. She anticipates earning her master's degree in May of 2019. Thereafter, she plans to work as a clinical fellow speech-language pathologist and earn her clinical certification.