# Language and Emergent Literacy in Low-Income African-American and White Children: The School Readiness Research Consortium

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### Honors research with Peter de Villiers (Psychology)

## Research Question

This large-scale longitudinal study examines patterns of dialect and narrative use in four and five-year-old African American English (AAE) speakers in order to determine the relationship between the depth of the children's dialect and their language skills on narrative tasks.

It compares the language and pre-literacy skills of the African American children with White children from matched SES and Parental Education backgrounds.

## Introduction

The relationship between use of AAE and literacy outcomes for African American (AA) children is complex.

· In 1st to 5th graders, AA children producing fewer Mainstream American English features (MAE) in their speech scored lower on standardized reading comprehension tests (Charity et al, 2004).

· However, AA preschoolers with deeper AAE dialects (measured by the number of syntactic and semantic features distinctive of AAE dialect that they produced) produced more complex sentence syntax in their spontaneous speech than children with weaker dialects (Craig & Washington, 1994).

· And Connor and Craig (2006) reported a U-shaped relationship between AA preschoolers' depth of dialect and emergent literacy skills. Children with the most and the fewest AAE features in their speech had the strongest pre-literacy language skills.

· The present study investigates the relationship between AA preschoolers' depth of dialect and their narrative skills using a subset of data collected from an ongoing longitudinal NIH Program Project of curricular interventions with children in poverty (The School Readiness Research Consortium).

· Oral narrative skills contribute significantly to early literacy and school success (Price et al, 2006; Snow et al, 2001; Westby, 1999). Narratives contain several features of decontextualized language and discourse that are crucial for text. These have been called "literate language" features (Westby, 1999).

## Participants

· 273 AA children and 151 White children aged 3;0 to 5;3 (mean 4;5) at the beginning of the study who were participating in an NIH Program Project with preschoolers in poverty. All of the children had nonverbal IQs > 70.

· The School Readiness Program Project is a longitudinal effectiveness study of a comprehensive curriculum intervention with 850 at-risk preschoolers in subsidized daycare programs in the Houston, TX and Tallahassee, FL areas.

· The AA children were matched with the White children for SES, Parental Education Level (PED), Nonverbal IQ and Verbal Memory (Word Span), but they were about 2 months younger than the White children on average.

## Method

· All of the children were tested on the DELV Screening Test (Seymour, Roeper & de Villiers, 2003) and produced two short oral narratives based on picture sequences from the DELV-NR (Seymour, Roeper & de Villiers, 2005) (see figures).

· The DELV-ST contains 15 phonological and morphosyntactic items that assess deviation from Mainstream American English (MAE) toward AAE. We scored the number of items for which AAE features were produced and the number of items for which MAE features were produced by each group of children.

· The DELV-NR narrative subtest is designed to be a dialect-neutral assessment of narrative skills in children.

· The children were assessed at the beginning of the preschool year (Time 1) and again at the end of the academic year (Time 2), about 7 months later.



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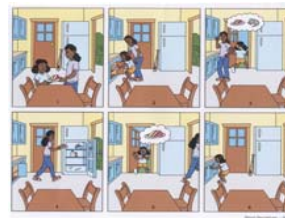


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## Analysis of the Narratives

· The videotaped narratives were transcribed at Smith College and coded for the production of literate language features by the children.

Six features of literate language were scored:

1. *Reference Specification* involves the use of adjective, prepositional phrases, and relative clauses to identify the characters as the story unfolds.

2. *Causal Expressions* relate causal relationships between the characters and events by the use of conjunctions ("so") and adverbial clauses (e.g., "because", "since").

3. *Temporal Expressions* lay out the timeline of the story and are used for foregrounding and backgrounding the events in relationship to each other. This included temporal adverbs and sequencers (e.g., "then", "next") and temporal adverbial clauses (e.g., "when", "while", "after")

4. *Desire Verbs* (e.g., "want", "like") express the motivations and preferences of the characters.

5. *Cognition Verbs* (e.g., "think", "know", "remember") express the states of knowledge or ignorance and the beliefs of the characters.

6. Use of *Communication Verbs* (e.g., "say", "tell", "ask") reports the content of any communications between the characters.

· Each of these features of narrative language creates a cohesive text of the story so that the listener can follow the events and understand the relationships between the protagonists (Greenhalgh & Strong, 2001)

· For each of the literate language features the children were given a score of 0, 1, or 2: 0 if the feature was not used at all, 1 if *at least one* syntactically simple form of the feature (e.g., an adjective used for reference specification) appeared, and 2 if *at least one* syntactically complex form of the feature was used (e.g., a relative clause used for reference specification).

· Each child therefore received a score out of a possible 12 points for each narrative.

## Results 1

· ANCOVAs with Age as a covariate and Ethnic Group as a fixed factor revealed that there were no significant differences between the AA and the White children in their narrative literate language scores at either Time 1 (F(1,400)=0.280, p=.597) or at Time 2 (F(1,404)=0.821, p=.365).

*However, the relationship between the children's dialect and their literate language scores was very different for the two ethnic groups:*

· For the *AA children* the higher their *AAE scores* on the DELV-ST (i.e., the deeper their AAE dialect), the more literate language they produced at Time 1 (r=+.22, p<.01). But there was no relationship with their MAE scores (r=+.02).

· For the *White children* the higher their *MAE scores* on the DELV-ST, the better their literate language production at Time 1 (r=+.29, p<.01). For this group there was a significant *negative* relationship between AAE scores and literate language (r= -.27, p<.01).

## Results 2

Hierarchical linear regression analyses were used to examine what factors at Time 1 predicted the children's literate language use at the end of the preschool year at Time 2:

· For the AA children, even when the effects of Age, Verbal Memory, Vocabulary, and their initial Literate Language level were entered into the regression first, a deeper AAE dialect at Time 1 proved to be an independent, positive predictor of higher literate language scores at Time 2 (p<.05). MAE production at Time 1 was unrelated to Literate Language at Time 2 (p=.312).

· For the White children, the same analysis showed that MAE production at Time 1 was a significant additional positive contributor to the children's Time 2 Literate Language (p<.01), but AAE production was a negative predictor (p<.05).

## Discussion

· In keeping with the study by Craig and Washington (1994), African American preschoolers with deeper dialects produced narratives with more complex literate language than children with weaker dialects.

· Thus, at age 4 deeper AAE dialect may be an indicator of more successful and complete language acquisition in AA children, so it is a *positive* predictor of narrative skills.

· In older children deeper AAE dialect on formal language assessments may indicate less familiarity with MAE or difficulties code-switching between AAE and MAE. So it may then appear as a risk factor for problems in reading MAE text (Charity et al, 2004).

## Future Directions

· In the NIH Program Project both measures of dialect and reading development have now been collected for about 75% of the children at the end of Kindergarten and Grade 1.

· So depth of AAE dialect in preschool as well as *changes* in the children's dialect over time as they are exposed to and learn to produce MAE at school can be related to their early reading achievements.

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