

Evaluating the influence of peers on the acquisition of mainstream forms by children who speak African American English

ViLA 2021 Poster Presentation

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Background

- Usage rate of different features associated with African American English (AAE) change throughout early school years (e.g., Terry et al., 2012; Terry & Connor, 2012; Van Hofwegen & Wolfram, 2017)
- Several studies have found peer effects on school-age children's academic and language growth (Henry & Rickman, 2007; Hanushek et al., 2003; Justice, Petscher, Schatschneider & Mashurn, 2011)
- Peer influence in classrooms may also be observed in dialect usage and acquisition of mainstream forms
- There are complex relationships among dialect variation, early literacy, and various demographic factors in the U.S.

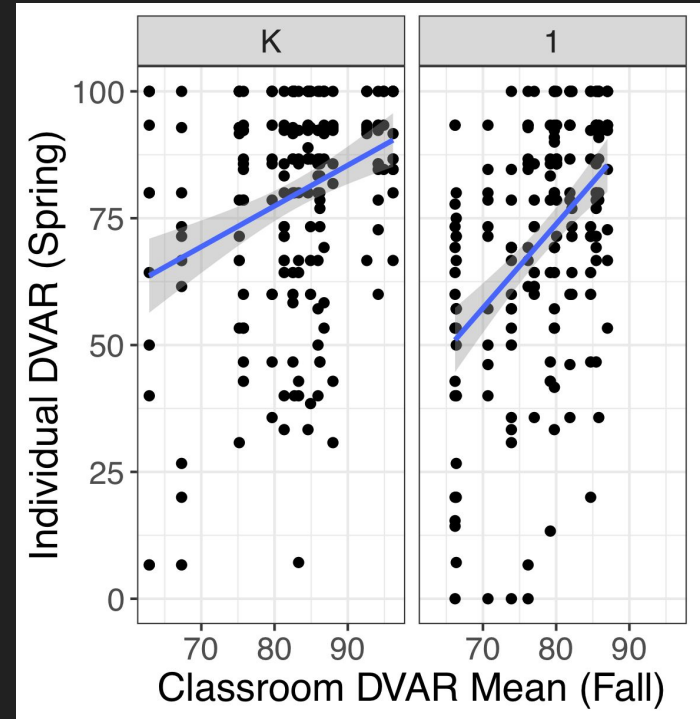
Research Question: Do classroom peers' usage rates of nonmainstream dialect features influence individual feature rates over the course of a school year?

Methods

- Participants:
 - $n=401$
 - Ages 5-8
 - Kindergarten and first grade
- Schools serve predominantly African American students from low-SES families
- Larger intervention study of a dialect-shifting curriculum
- Assessments in fall and spring of school year:
 - Diagnostic Evaluation of Language Variation - Screening Test (DELV-ST)
 - Basic Reading Cluster from the Woodcock Johnson Achievement Test IV (WJIV)
- Dependent variable: “DVAR” on DELV: items using AAE / scorable items

Results

- Linear mixed-effects models, classroom-level random intercept
- Dependent variable: individual DVAR score in spring
- Significant effects of interest
 - **Classroom mean DVAR at baseline** ($p < 0.01$)
 - **Classroom mean x Grade interaction** ($p = 0.01$, stronger effect in first grade)
- Other significant effects:
 - Individual Baseline DVAR ($p < 0.001$)
 - Individual Baseline WJIV ($p < 0.001$)
 - Percentage of African American students at school ($p = 0.02$)



Scatter plot for illustration purposes; other regressors included in model

Discussion

- Correlational link between classroom peers' non-mainstream feature rate and individual children's usage rate of non-mainstream forms
- Effect more pronounced in first grade
- Unclear whether particular variables are more susceptible to peer influence than others
- Unclear whether differences represent change in repertoire (e.g., addition of verbal -s) or change in usage rate of variables in repertoire.

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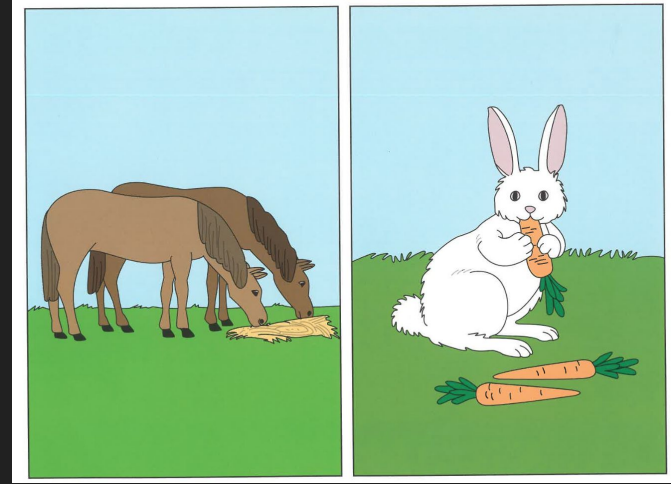
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Supplemental Material

DELV-ST

- Norm-referenced screener designed to determine whether a child speaks a non-mainstream variety of North American English, such as AAE
- Uses common features (15 total items):
 - Phonological features: th, cluster reduction
 - Subject-verb agreement
 - Verbal -s
 - *has/have*
 - *doesn't/don't*
 - *was/were*
- Dialect Variation (DVAR) score: responses using non-mainstream feature / scorable items



“The horses eat hay, but the rabbit...”

Participant Descriptive Statistics

| Measure | K-Fall | K-Spring | Gr. 1 - Fall | Gr. 1 - Spring |
|------------------------------------------|--------------|--------------|--------------|----------------|
| Age (years) | 5.7 (0.4) | 6.2 (0.4) | 6.7 (0.4) | 7.2 (0.4) |
| DVAR | 83.1 (19.3) | 79.2 (21.6) | 76.5 (23) | 68.5 (25.5) |
| WJ Basic Reading: Standard Score | 89.8 (14.3) | 94 (14.7) | 89 (14.9) | 92.5 (16.4) |
| WJ Basic Reading: <i>W</i> (Rasch) Score | 393.7 (25.6) | 418.9 (25.2) | 425.2 (26.7) | 445.5 (27.6) |

Notes: WJ Basic Reading Standard Score has a standardized mean of 100 and standard deviation of 15. *W*-Score of 500 represents normative mean for a 10-year-old; standard deviation is 15.

Model Summary

| Effect | β^* | Std. Error | df | t value | p |
|--------------------------------------------|-----------|------------|--------|---------|--------|
| (Intercept) | 0.02 | 0.06 | 29.99 | 0.34 | 0.734 |
| DVAR Individual Baseline | 0.62 | 0.04 | 367.47 | 17.07 | <0.001 |
| DVAR Class - Baseline | 0.20 | 0.07 | 24.07 | 2.82 | 0.009 |
| Grade - Kindergarten (reference = Gr 1) | 0.02 | 0.09 | 33.37 | 0.29 | 0.776 |
| Class DVAR:Grade(K) | -0.23 | 0.08 | 22.34 | -2.75 | 0.011 |
| % Black students (school) | 0.10 | 0.04 | 22.85 | 2.51 | 0.020 |
| % Eligible for free lunch (school) | 0.04 | 0.04 | 24.86 | 0.90 | 0.377 |
| WJ-IV Reading Baseline (Individual) | -0.15 | 0.04 | 392.33 | -3.55 | <0.001 |