Children's classification of regional dialect

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Background

- Adults can classify unfamiliar talkers by their regional dialect with above-chance performance (van Bezooijen and Gooskens, 1999; Clopper and Pisoni, 2004).
- 5- and 6-year-olds can distinguish their own speech from foreign-accented speech, but cannot reliably distinguish their own speech variety and a regional variety (Girard, Floccia, & Goslin, 2008; Wagner, Clopper, & Pate, 2014)

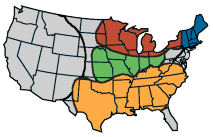
Research Question

- How do children classify individual talkers of different dialects in relation to each other, and how do children's ages affect their patterns of talker classification?

Methods

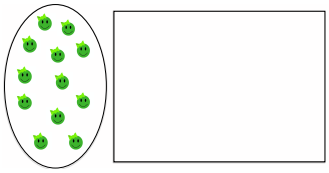
Participants

- Tested in the Language Sciences Lab at COSI in Columbus, Ohio
- 219 native American English speakers, mostly from Midwest:
  - 40 4- & 5-year-olds (20 female)
  - 44 6- & 7-year-olds (24 female)
  - 45 8- & 9-year-olds (22 female)
  - 41 10- & 11-year-olds (18 female)



Materials

- Sentence: "***She had your dark suit in greasy wash water all year.***"
- Talkers: 3 female adults from each of 4 dialect regions of the United States: Midland (**MID**), New England (**NE**), North (**NOR**), and South (**SOU**)
- Talkers were represented with identical smiley face icons



Procedure

- Listeners were presented with all talker smiley face icons and asked to sort talker icons into groups based on where talkers were from.
- Listeners were able to listen to talkers in any order, and as many times as they desired.

Results

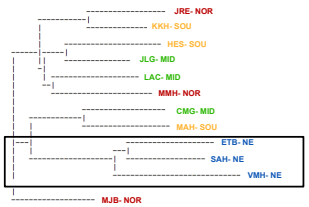
Age Group	Mean number of groups	Proportion Correct Pairings	Proportion Errors	Difference score (%Correct - %Errors)
4 & 5 yrs	3.40 (SD=1.92)	0.45 (0.25)	0.39 (0.21)	0.05 (0.14)
6 & 7 yrs	4.77 (1.87)	0.31 (0.21)	0.22 (0.17)	0.09 (0.14)
8 & 9 yrs	4.67 (2.15)	0.42 (0.25)	0.19 (0.15)	0.23 (0.21)
10 & 11 yrs	4.56 (1.80)	0.39 (0.27)	0.16 (0.10)	0.23 (0.26)

- Two-sample t-tests showed that participants in the 4- and 5-year-old age group made significantly fewer groups than all of the older participants ($p < .05$).
- Difference scores of the two younger age groups weree significantly lower than difference scores of the two older age groups ($p < .05$).

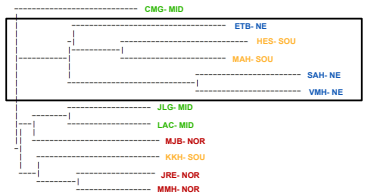
Results

Cluster Analysis

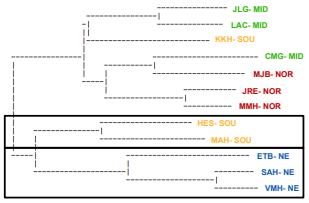
4- & 5-year-olds (N=40)



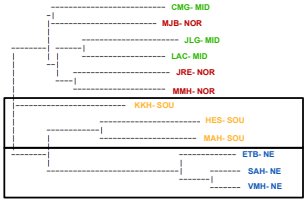
6- & 7-year-olds (N=44)



8- & 9-year-olds (N=45)



10- & 11-year-olds (N=41)



Summary

Accuracy

- The 4- and 5-year-olds formed fewer groups, showing that they perceive fewer dialectal differences between talkers of different dialects than older children do.
- Mean listener accuracy improves with age, but begins to level-off at 8 to 9 years old. Still, high schoolers and adults are more accurate than the oldest children in the current study (Yan, Clopper, Wagner, CCBS Retreat 2013).

Clustering

- The youngest participants perceived only a New England group, with all other talkers grouped together.
- The 6- and 7-year-olds formed two major groups; one consisting of New England and Southern talkers, and the other of Midland and Northern talkers.
- Older participants, ages 8 to 11, distinguished New England talkers from Southern talkers, but formed a combined Midland & Northern group, patterning in the same way as high schoolers and adults (Yan, Clopper, Wagner, CCBS Retreat 2013).

Discussion

- Results are the first to show that children as young as four have the ability to classify talkers on the basis of dialect.
- Classification is consistent with children's perception of dialect localness (Clopper, McCullough, & Wagner, CCBS 2014).
  - At 4 & 5 years old, children sort-out talkers of the New England dialect region, the least local to Ohio.
  - At 6 & 7 years old, children classify talkers with a local vs. non-local distinction.
  - Older children combine Midland & Northern talkers into one group, consistent with the perception of those varieties as both local to Ohio.

Acknowledgments
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