Linguistic and Cognitive Factors Sensitive to Language Performance Differences in ELLs

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Introduction

- Children with Specific Language Impairment (SLI) fail to develop language as expected
- School age children receiving English instruction whose first language is not English (ELL) also fall below their peers in language abilities
- ELL from minority ethnolinguistic communities often lose their L1 in the process of learning their L2; this process of L1 loss is referred to as *L1 attrition* (Genesee et al. 2004)
- Differentiating these two groups of children (SLI and ELL) with language differences is challenging, as the groups tend to perform at similar levels on many measures of oral language knowledge (Kohnert et al. (2006)
- Cognitive measures may be valid assessment tools that minimize the role of linguistic knowledge and experiences, and aid in distinguishing between ELL and children with underlying language impairment

Purpose

- This study investigated cognitive and linguistic markers that may differentiate
  - ELL without SLI
  - age-matched monolingual children with SLI
  - Age-matched monolingual children without SLI

Method

Participants

- 45 bilingual children; 6 to 9 years; L1 Arabic, L2-English, attending school in Canada
- Two monolingual groups from Saudi Arabia, 6 to 9 years:
  - 376 TD Arabic-speaking children
  - 45 Arabic-speaking children with SLI

SLI Criteria:

- z < -1 SD on 2 subtests from Arabic Language Test (Shaalan, 2010)
- z > -1 SD on The Test of Non-verbal Intelligence (TONI-3) (Brown et al., 1997)

Procedure

Linguistic measures:

- Arabic Language Screening Test (ALST; El-Halees and Wiig, 1999)
- Arabic Receptive- Expressive Vocabulary Test (AREVT; El-Halees and Wiig, 1999)
- Arabic Sight Word Reading Task (ASWR; Oweini and Hazoury, 2010)

Cognitive measures:

- The Automated Working Memory Assessment (AWMA; Alloway, 2007)

Other measure:

- Arabic Nonword Repetition Task (ANWR; Shaalan, 2010)

Results

FIGURE 1: Overall, language measures scores for TD monolingual, monolingual with SLI, and bilingual groups

The ELL scored significantly more poorly on Arabic language measures than both monolingual groups, $p < .05$

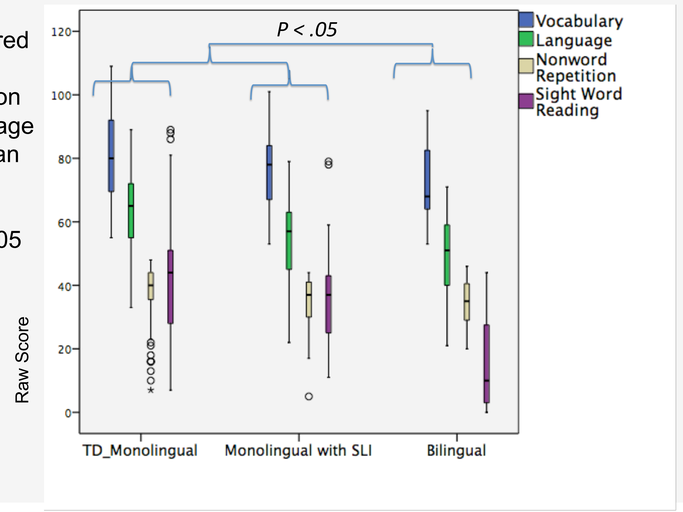
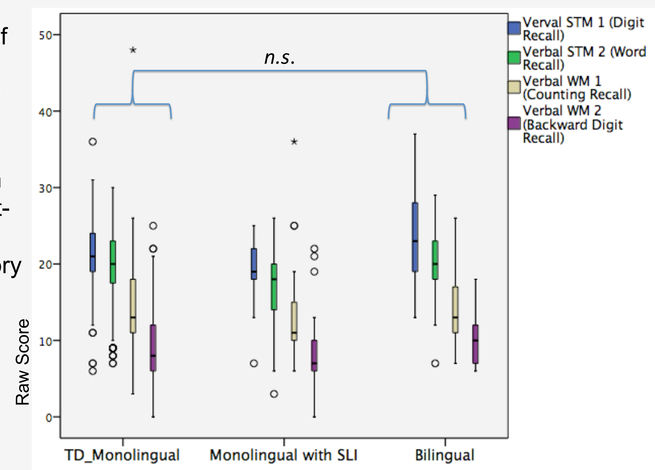


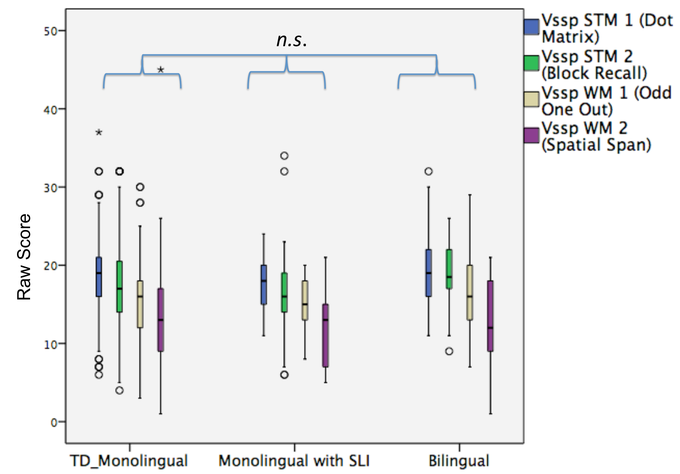
FIGURE 2: Overall, verbal short-term and working memory scores for TD monolingual, monolingual with SLI, and bilingual groups

The performance of ELL did not differ from that of the TD monolingual participants on all verbal short-term and working memory measures, $p > .05$



Results

FIGURE 3: Overall, visuospatial short-term and working memory scores for TD monolingual, monolingual with SLI, and bilingual groups



No differences were found between the ELL and both monolingual groups on visuospatial working memory, $p > .05$

Conclusions

- The performance of ELL did not differ from that of the TD monolingual participants on all processing measures.
- Significantly lower scores on Arabic vocabulary and language measures were found for the ELL group compared to both monolingual groups.
- The pattern of significantly poorer Arabic skills even than a monolingual Arabic SLI group for the ELL with Arabic as their LI might reflect very rapid L1 attrition in an instructional and cultural context emphasizing the L2.

References

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