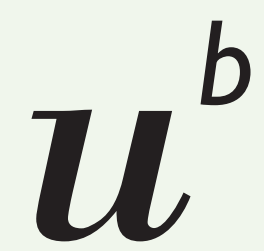


# Emotion understanding and language skills among preschool-age single and dual language learners

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## EMOTION UNDERSTANDING AND LANGUAGE DEVELOPMENT

**Emotion understanding (EU)** is a basic social-emotional competency that involves the ability to recognize, label, and predict emotions.

EU supports the development of:

- complex social skills
  - positive relationships
  - successful social interactions
  - adaptive social functioning
- (Denham et al., 2012)

**Language development** depends on social functioning (Tomasello, 1992) and may be directly related to EU (Trentacosta & Izard, 2007).

Children with better EU may...

- ... engage in more meaningful social interactions
- ... have more cognitive resources to focus on conversation

Thus, they may have more opportunities to learn language.

**HYPOTHESIS 1:** Emotion understanding will be positively associated with language skills in children's primary language.

## DUAL LANGUAGE LEARNERS

Growing up with a different society versus home language may affect how language develops (e.g., Scheffner Hammer et al., 2014).

For **Dual Language Learners (DLL)**, emotion understanding may be particularly important.

- DLL may rely on their ability to comprehend emotional cues and situations to interpret meaning more than single language learners (SLL)
- The complex language environment of DLL may be mitigated by better EU

**HYPOTHESIS 2:** The relation between emotion understanding and language skills will be stronger among DLL than SLL.

## METHOD

### Sample

- Piloting sample of longitudinal CROCODILE study on child development
- **98 SLL:** 53% girls; Age 35-69 months (M=49.11, SD=6.53); 72% mothers with university degree
- **51 DLL:** 45% girls; Age 38-78 months (M=53.39, SD=8.57); 42% mothers with university degree

### Measures: Emotion Understanding

- Expressive: EMK 3-6 (Petermann et al., 2016)
- Receptive: IDS-P (Grob et al., 2013)
- Situative: AKT (Denham, 1986)
- An emotion understanding composite was created by averaging the z-scores of each subtask



Figure 1: Example image from Receptive EU task

### Measures: Language

- Receptive vocabulary: Peabody Picture Vocabulary Test, PPVT (e.g. Stella et al., 2000)
- Sentence comprehension: Picture-choice task (e.g. Lecocq, 1998)
- Pragmatics: 24-item parent report, completed by 134 parent (96 SLL; 38 DLL)

### Measures: Nonverbal Reasoning

- Snijders-Oomen nonverbal intelligence test - SON-R (Tellegen et al., 1993)

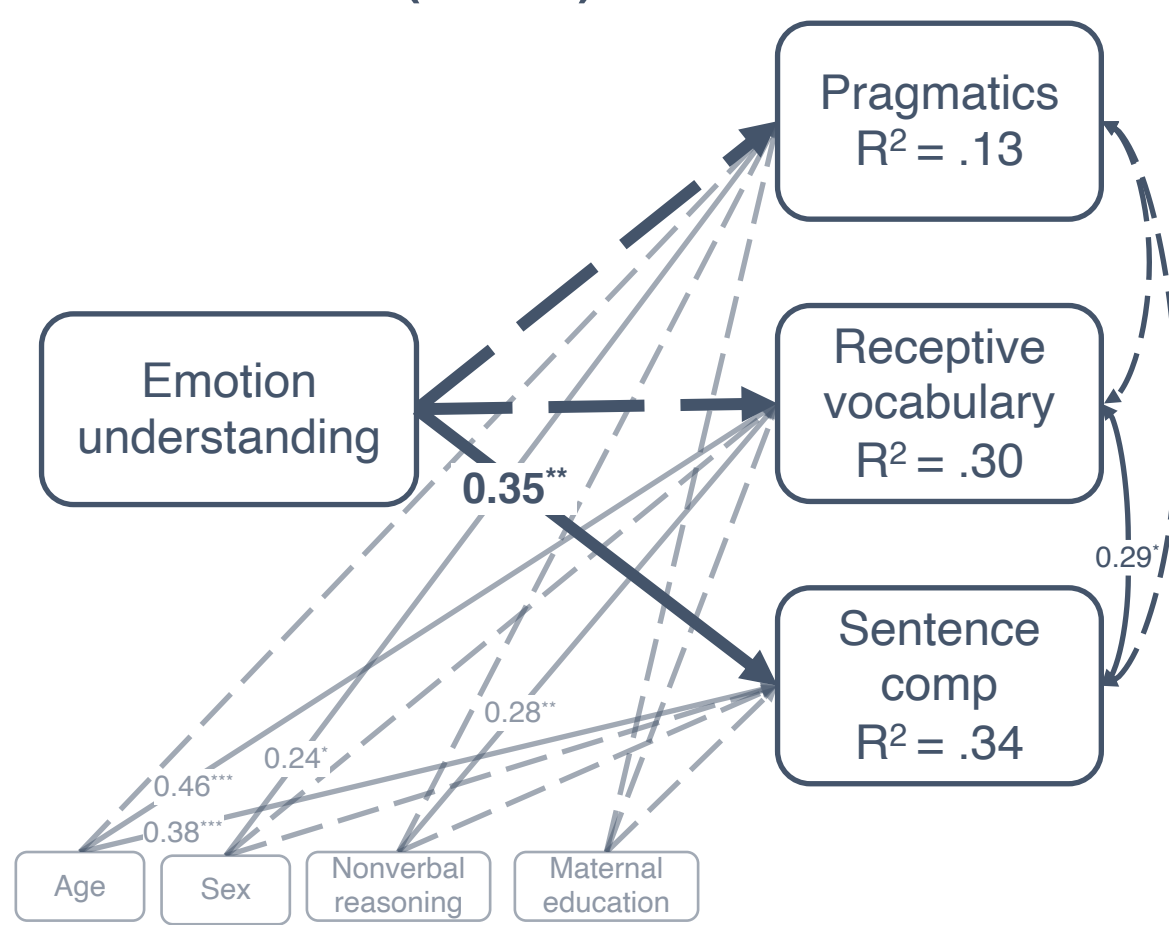
### Data Analysis

- Multi-group path analysis
- MPLus v8: FIML with bootstrapping
- Covariates: age, sex, maternal education, & nonverbal reasoning

## RESULTS

- There is an association between emotion understanding and sentence comprehension for both DLL and SLL.
- The association between emotion understanding and receptive vocabulary is *only* present for DLL.

### Panel A: SLL (N = 98)



### Panel B: DLL (N = 49)

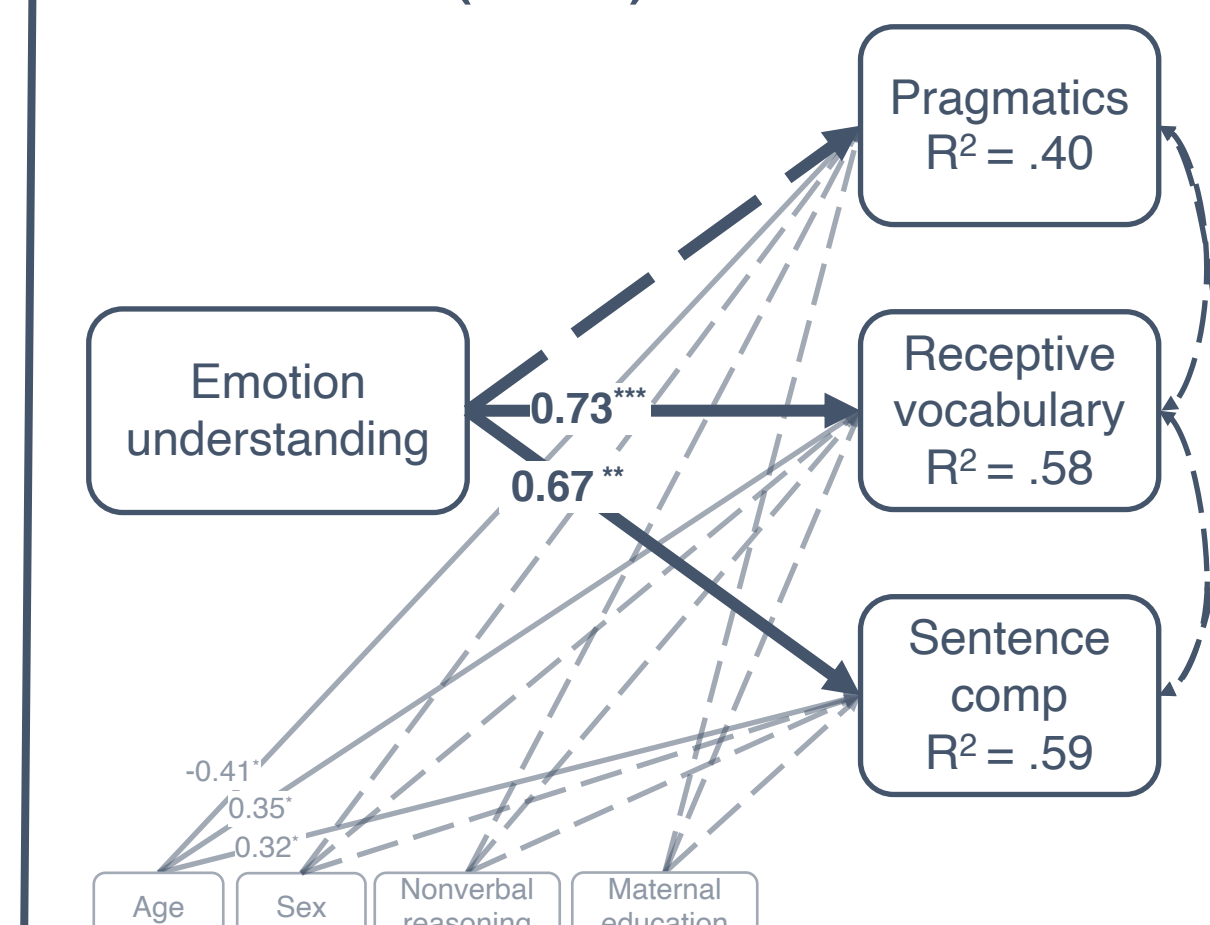


Figure 2. Multi-Group Path Analysis

All values are standardized. Solid lines = significant; dashed lines = nonsignificant. \*  $p < .05$ , \*\*  $p < .01$ ,  $p < .001$

**Figure 3.** Associations between emotion understanding and receptive vocabulary among single and dual language learners are not significantly different for DLL and SLL [ $\chi^2_{diff}(1) = 3.005, ns$ ].

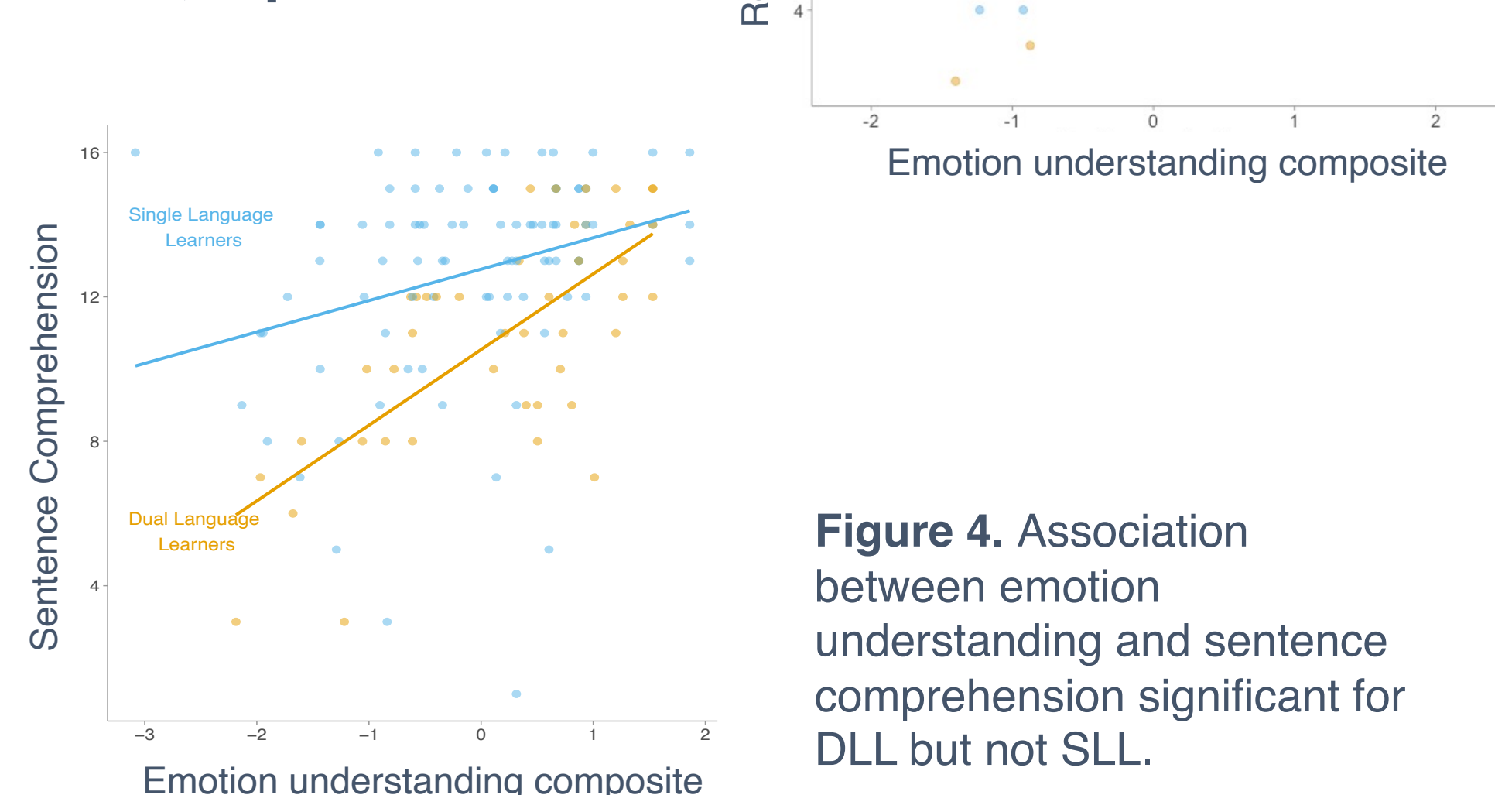


Figure 4. Association between emotion understanding and sentence comprehension significant for DLL but not SLL.

## CONCLUSIONS & FUTURE DIRECTIONS

- Emotion understanding may promote certain types of language skills, particularly receptive skills.
- The effect of emotion understanding may be more general for Dual Language Learners than Single Language Learners.
- Emotion understanding may therefore be an important target for early childhood intervention, particularly among Dual Language Learners.
- Future studies should focus on the longitudinal relation between emotion understanding and language skills.

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