

RESEARCH QUESTION

Is there a greater effect of self-regulation on expressive language or expressive language on self-regulation over time?

INTRODUCTION

- Children with exposure to a second language have been shown to exhibit higher self-regulation skills when compared to monolingual children (Carlson, 2008)
- Low-income, minority students demonstrate lower language skills than their Caucasian, middle-income counterparts (Qi, 2012)
- Minority children living in poverty have been shown to have poorer language and self-regulation skills when compared to their Caucasian, middle-class counterparts (Vallotton, 2012)
- Children who come from low-income households have been shown to exhibit decreased self-regulation skills and language development when compared to their Caucasian, middle-income counterparts (Vallotton, 2012)
- A positive relationship has been established between lexical diversity and inhibitory control in bilingual (English- and Spanish- speaking), low-income children (Peredo, 2015)

METHOD

Participants

- Sample of ($N = 39$) low-income, Hispanic preschool 3 year old ($n = 18$) and 4 year old ($n = 21$) children recruited from a private school that emphasizes socio-emotional health
- 18 boys; 21 girls
- 92% retention rate from T1 to T3 ($N=36$)
- Bilingualism (parent reported)
 - Mostly Spanish ($n = 15$)
 - Spanish and English equally ($n = 9$)
 - Mostly English ($n = 15$)

MEASURES

Self-Regulation

- Complex Response Inhibition Task (CRI)
 - Head, Toes Knees, Shoulders (HTKS, Ponitz et al., 2008) "If I say touch your toes, then you touch your head"

Expressive Language

- Narrative Retell Language Sampling
 - Number of Different Words (NDW) derived from transcribed narrative using Systematic Analysis of Language Transcripts (SALT) software
 - Child is told a story using four wordless pictures books (Frog Series, Mayer, 1969-1975)
 - Child recorded while retelling the story in the target language
 - Target language and story order were counterbalanced

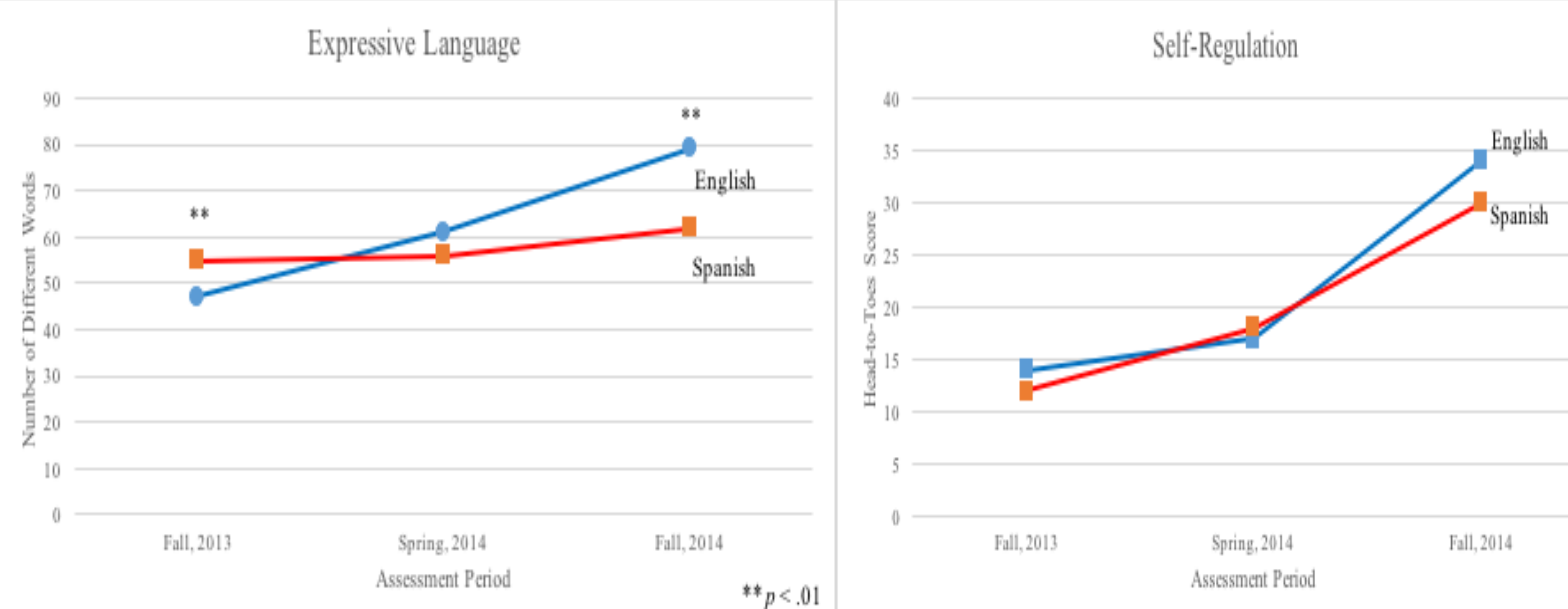
PROCEDURE

- Children were assessed in English & Spanish
- All measures were collected at 3 time periods: Fall, Year 1; Spring, Year 1; & Fall, Year 2
- Assessments were conducted within the school
- HTKS scored for responses over 30 trials, 10 each per phase
 - Correct responses = 2 pts
 - Partially correct responses = 1 pt
- NDW is a lexical diversity measure that tracks the number of different (uninflected lexemes) words produced

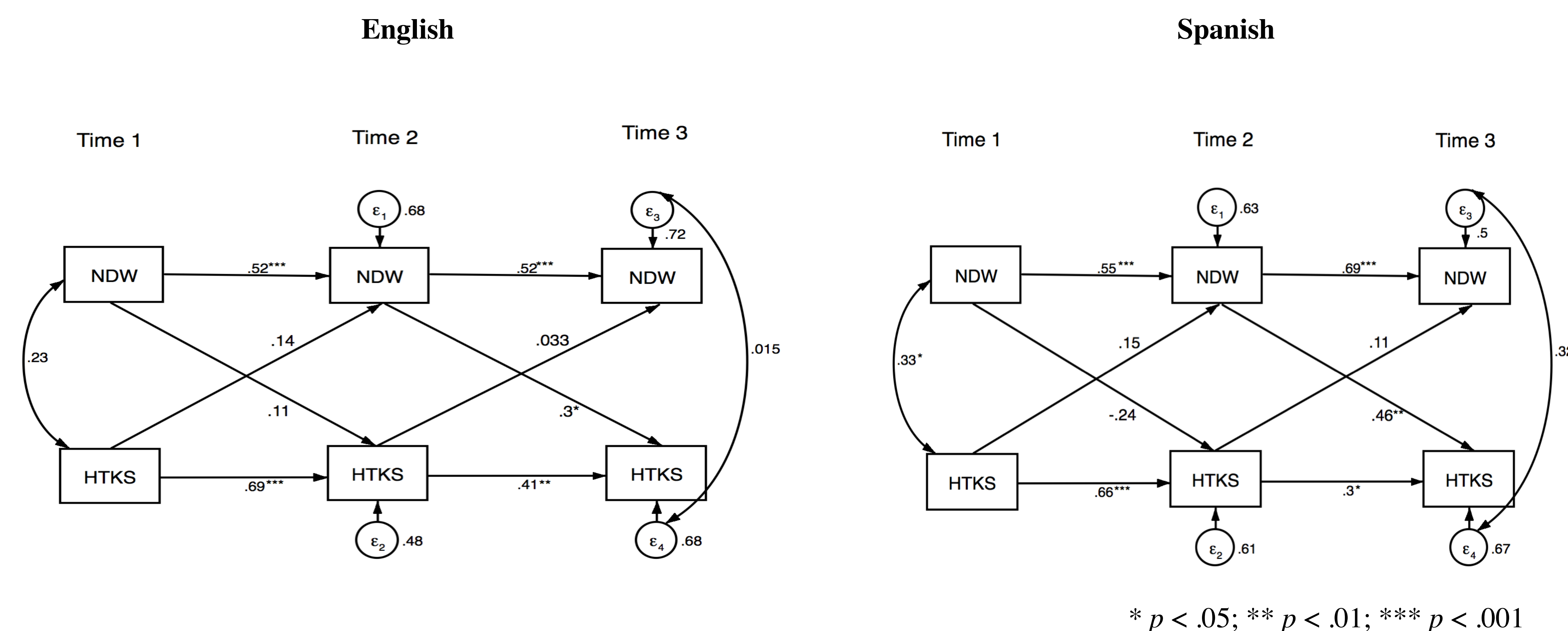
Descriptive Statistics

		Assessment Period		
		Fall, Year 1	Spring, Year 1	Fall, Year 2
Language (NDW)	English	46.8 (21.1)	60.8 (18.2)	79.4 (23.6)
	Spanish	54.7 (24.6)	55.5 (20.6)	61.7 (26.3)
Self-Regulation (HTKS)	English	13.9 (17.6)	17.4 (19.0)	34.1 (20.1)
	Spanish	11.6 (15.0)	18.1 (19.0)	30.1 (20.8)

GROWTH IN EXPRESSIVE LANGUAGE AND SELF-REGULATION



3 WAVE, CROSS-LAGGED PATH ESTIMATES FOR EXPRESSIVE LANGUAGE AND SELF-REGULATION



BETWEEN LANGUAGE, WITHIN MEASURE CORRELATIONS

	Time 1	Time 2	Time 3
NDW (E-S)	.83*	.51*	.38*
HTKS (E-S)	.75*	.57*	.71*

Note. NDW = Number of Different Words; HTKS = Head, Toes, Knees, Shoulders; E-S = English-Spanish; * $p < .05$.

- Differences found for T1 & T2, T1 & T3 (but not T2 & T3) NDW
- No differences found for HTKS measures (Using r to z transformation for dependent r differences)

FINDINGS & DISCUSSION

- How consistently did children score across language?
 - In terms of language, consistency weakens over time, BUT
 - In terms of self-regulation, consistency maintains over time
 - In other words, it doesn't matter what language in which the children were assessed
- Why do we see "growth" in English but not Spanish?
 - Children's school emphasizes English
 - Children are likely to experience [Spanish] "first language loss" the more they are exposed to English language
- In this sample, path analysis indicates that expressive language is making a greater contribution to self-regulation than vice versa
 - The relation emerged between time 2 and time 3, but not between time 1 and time 2
- Findings are consistent with prior work (Bohlmann et al., 2015)

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