

Language and word-level reading development in Greek-English bilingual children at primary school: a cross-sequential study



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Background

Two topics relating to language development of children growing up speaking two languages have long been investigated. The first relates to how children develop and maintain their heritage language and the second to how they develop their majority language (Tsai, Park, Liu & Lau, 2012). Several previous studies have investigated how children **develop** their majority language (Chondrogianni & Marinis, 2011, 2012; Gutierrez-Clellen, Simon-Dereijido, & Wagner, 2008). In contrast, a smaller number of studies have carried out in depth examinations of how children develop and maintain their heritage language **and reading skills using a longitudinal design** (Gathercole & Thomas, 2009; Hoff, 2013).

Research Questions

- Does children's performance on objective measures of language and word-level reading skills differ on the basis of time (Time 1 vs. 2), language (English vs. Greek), and age (Younger vs. Older children)?
- What is the relationship between the heritage (Greek) and majority (English) language at Time 1 and decoding at Time 2 both within and across languages?

Method

Participants

- 20 from Year 1 (Mean age = 76.6 months, SD = 3.6, 14 boys and 6 girls)
- 20 from Year 3 (Mean age = 100.4 months, SD = 3.4, 9 boys and 11 girls)
- Children were assessed again one school year later (Time 2)

Material

Language history questionnaire

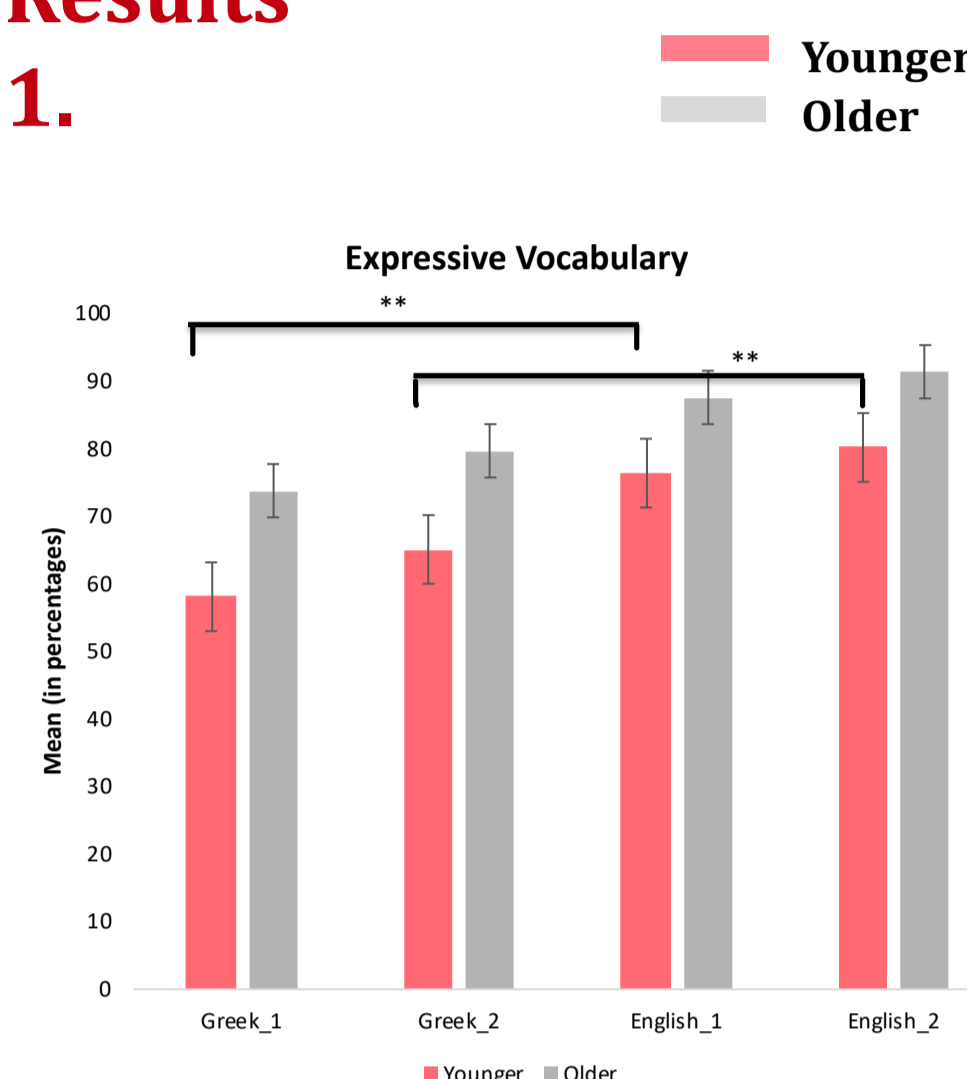
LITMUS-PABIQ questionnaire (Tuller, 2015)

Language and Literacy Tasks

	Vocabulary	Phonological Awareness	Reading Decoding
	Expressive Vocabulary	Blending Elision	Real-word reading Pseudo-word reading
English	The Renfrew Word Finding Vocabulary Test (Renfrew, 1997)	CTOPP-2 (Wagner, Torgesen, Rashotte & Pearson, 2013)	TOWRE-2 (Wagner, Torgesen & Rashotte, 2011)
Greek	Greek adaptation by Vogindroukas et.al (2009)	Experimental tasks adapted in Greek based on CTOPP-2	Greek adaptation of TOWRE-2 by Georgiou, Parrila & Papadopoulos (2008)

Results

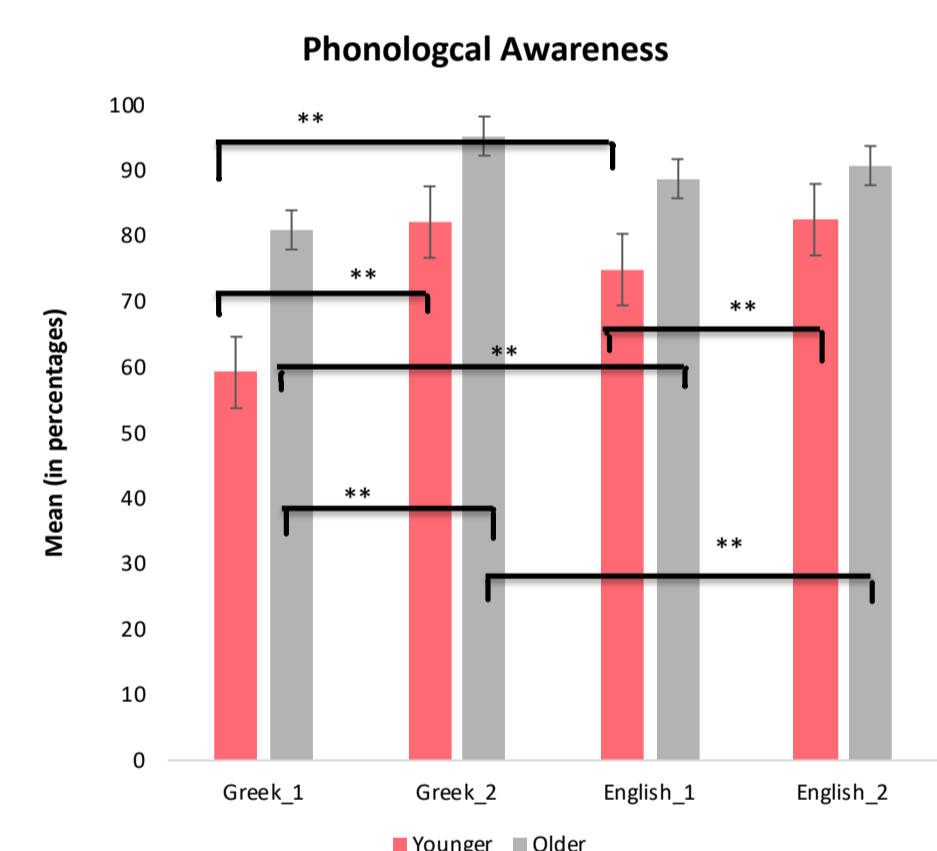
1.



Main effect of Time

Main effect of Language

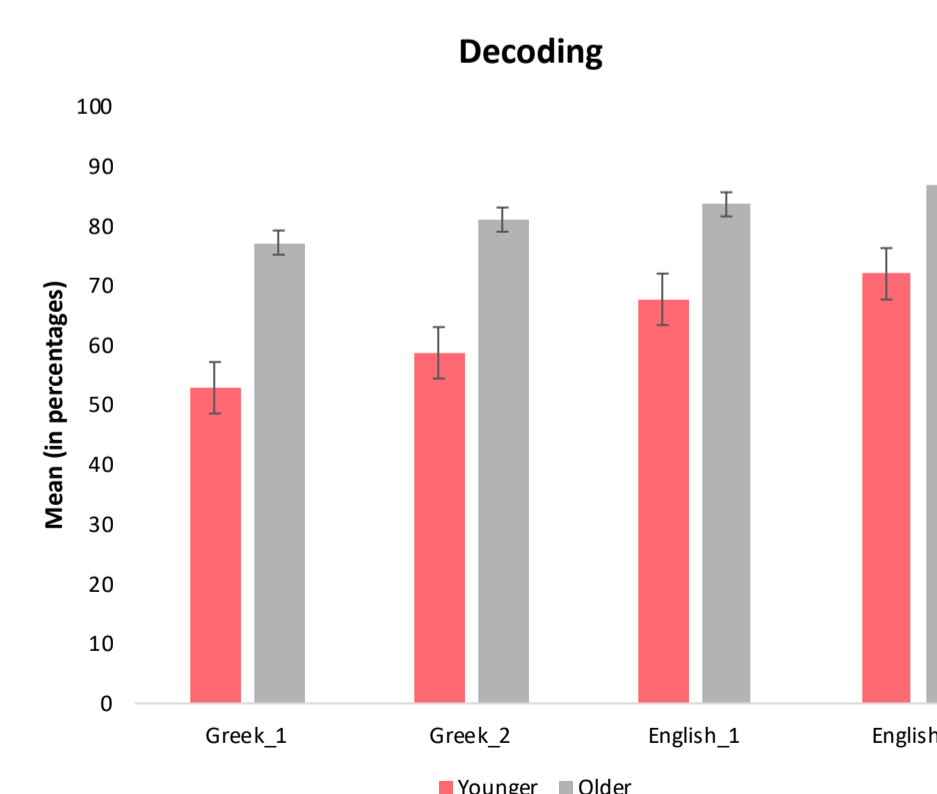
Language*Age sig
Time * Language sig
Time *Language* Age sig



Main effect of Time

Main effect of Age

Non-significant effect of Language
Time*Age ns
Language * Age sig
Time * Language sig
Time * Language * Age sig



Main effect of Time

Main effect of Language

Main effect of Age

Time* Age ns
Language * Age ns
Time * Language ns
Time * Language * Age ns

2. Partial-correlation matrix for children's performance on expressive vocabulary, phonological awareness, morphological awareness at Time 1 and decoding at Time 2 in Greek and English, controlling for age.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	
Age	1.Expressive Vocabulary.Gr.1									
	2.Expressive Vocabulary.Eng1	.43***								
	3.Phonological Awareness.Gr.1	.07	.07							
	4.Phonological Awareness.Eng.1	.03	.06	.37*						
	5.Expressive Vocabulary.Gr.2	.66***	.24	.18	.02					
	6.Expressive Vocabulary.Eng.2	.37*	.73***	.13	.13	.10				
	7.Phonological Awareness. Gr.2	.06	.07	.85***	.25***	.03	.15			
	8.Phonological Awareness.Eng.2	.05*	.19	.30	.75***	.06	.14	.24		
	9.Decoding.Gr.2	.11	.15	.44**	.41*	.11	.04	.46	.26	
	10.Decoding.Eng.2	.16	.24	.48*	.43**	.14	.27	.34*	.30	.46**

Conclusion

- Our study shows that overall scores were higher in the majority (English) than the heritage language (Greek), **demonstrating that the children were dominant in English.**
- There was linear development in vocabulary and reading decoding with older children showing higher scores than younger children and higher scores in the second compared to the first testing time. In phonological awareness the difference between the majority and heritage language closed at the second testing time
- The results showed both a concurrent and longitudinal relationship between phonological awareness and word reading skills, both within and between languages, supporting the view that learning a first language with more transparent orthography could enhance skills in the second language with more opaque orthography and vice versa

References

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