



Age of Bilingual Language Exposure as a New Window into Bilingual Reading Development

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INTRODUCTION

ADVANTAGE Bilingual *language* exposure has been said to demonstrate select linguistic and cognitive advantages¹⁻²

NEW QUESTION - Does bilingual schooling yield a *reading* advantage?

SIMULTANEOUS Simultaneous exposure to two *languages* in early life yields entirely normal monolingual-like linguistic milestone development in each language, with no language delay or confusion³⁻⁷

NEW QUESTION - Is simultaneous exposure to two *reading* systems beneficial or harmful to reading development in young bilinguals?

AGE The age of first bilingual language exposure has been shown to impact *language* development in each of a bilingual's languages⁸⁻¹²

NEW QUESTION - Does the age of children's first bilingual language exposure impact *reading* development in each of their two languages?

SIGNIFICANCE

Understanding the impact of *type of schooling* and *age of first bilingual exposure* on bilingual children's reading success in each language is vital to educating the nation's children, be they monolingual or bilingual

METHODS

PARTICIPANTS

2 Grades: 2nd and 3rd (N=134 children)

2 Schools: Bilingual Spanish-English, and Monolingual English

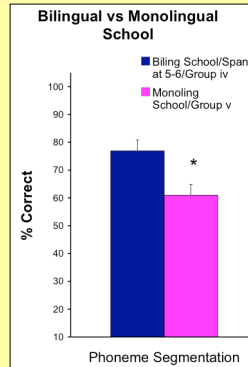
Group	Languages at home	School	Age of English Exposure	Age of Spanish Exposure	N
i	Spanish & English	Bilingual	birth-3	birth	11
ii			3-4	birth	19
iii			5-6	birth	19
iv	English Only	Monolingual	birth	5-6	34
v			birth	NA	51

TASKS

Standardized Spanish and English reading tasks¹³⁻¹⁵

Phonological Awareness Tasks	Reading Tasks
Initial Phoneme Deletion	Regular Words
Final Phoneme Deletion	Irregular Words
Phoneme Segmentation	Non-Words (Word Attack)
	Passage Comprehension

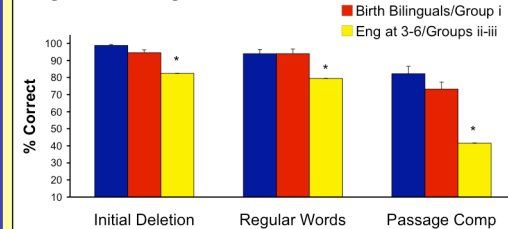
RESULTS



Bilingual vs Monolingual Reading Exposure

Children in a bilingual school, from *monolingual* English homes, outperformed monolingual children in a monolingual school on the most challenging Phonological Awareness task (F (6;198) = 38.8; $p < 0.01$)

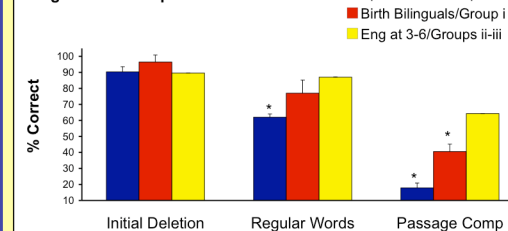
Bilingual School. English Tasks



English Tasks

Birth bilinguals and English monolinguals performed equally well on all English tasks. Later bilinguals (Eng at 3-6) performed less optimally (Tukey HSD; $p < 0.05$)

Bilingual School. Spanish Tasks



Spanish Tasks

Bilinguals performed the same on all Spanish tasks, except bilinguals with Eng at 5-6 outperformed birth bilinguals on Passage Comprehension. Children from monolingual English homes in a bilingual school performed as well as as native Spanish-speakers on Spanish Phonological Awareness (Tukey HSD; $p < 0.05$)

DISCUSSION

ADVANTAGE Schooling in two languages affords children from *monolingual* homes an *advantage* in *phonological awareness skills*, one of the key building blocks in reading development

SIMULTANEOUS All bilingual school children with simultaneous exposure to two reading systems had *normal reading development*

AGE Early bilinguals (bilingual exposure before age 3) had equally high, monolingual-like, reading performance in both of their languages

Later-exposed bilinguals (ages 3-6) can develop normal reading skills in both languages with some of their reading skills initially higher in their home language

IMPLICATIONS

The age of bilingual exposure provides a new tool for evaluating whether a young bilingual has a reading problem or whether he/she is a typically-developing dual language learner

Early bilinguals (bilingual exposure before age 3) can be expected to have reading performance comparable to monolinguals'

Later-exposed bilinguals (ages 3-6) can initially have lower reading performance in their NEW language only, due most probably to its incomplete acquisition rather than to a reading disability

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