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The Role of Siblings in the English Language Development
of Bilingual Toddlers in the U. S.

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Abstract

Caregivers of 62 toddlers (Mean age = 22.55 months, $SD = 3.90$) acquiring English in bilingual homes provided information on home language use and on the toddlers' English vocabulary development using the MacArthur-Bates Communicative Development Inventory. Thirty-four of the participants were first born children, 28 had at least one older sibling. Across all children, the overall portion of input that was in English was significantly related to the children's English vocabulary percentile scores $r(n = 60) = .34, p = .007$. For those toddlers with older siblings, the percent of sibling input that was in English was also a significant correlate $r(n = 28) = .41, p < .05$. CDI percentile scores were higher for children who spoke to their sibling(s) in English ($M = 45.45, SD = 27.88, n = 11$) than in Spanish ($M = 5.00, SD = 0.00, n = 2$) or a mix of English and Spanish ($M = 20.00, SD = 26.01, n = 16$), $F(2, 26) = 5.21, p < .01$.

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Language use in the home is a significant factor in explaining bilingual development (De Houwer, 2007; Pearson, 2007), but the processes that influence home language use, and thus bilingual development, have not been fully explored. Studies show that children learn from their siblings (Dunn, Brown, Slomkowski, Tesla, & Youngblade, 1991; Furman & Lanthier, 2002; Howe, Petrakos, Rinaldi, & LeFebvre, 2005; Perner, Ruffman, & Leekam, 1994). Research indicates that older siblings talk differently than mothers in the speech directed at younger siblings (Hoff, 2006). Zukow-Goldring (2002) has studied sibling caregiving features in Latino and European-American cultures and discussed how siblings, like mothers, adjust their speech to younger children to cohere with what is going on at that place in time, to allow for greater understanding.

The foregoing findings suggest siblings may play an important role as language teachers, but other research suggests siblings may be of limited use as sources of language-advancing input. Cutting and Dunn (1999) studied family background characteristics including child-sibling relationships and language development and found that having siblings at home was negatively correlated with receptive vocabulary scores. Additionally, Hoff-Ginsberg and Krueger (1991) found that in a sample of monolingual English families, siblings had different and less supportive conversational styles than mothers. However, 7- to 8-year-old siblings provided more supportive language interactions to younger children than did the 4- to 5-year-old siblings.

The existing evidence on sibling effects on monolingual children's language acquisition does not coalesce to one simple picture. Findings contradict other findings, and there does not seem to be any firm conclusions on the effect of siblings on children's language development. It

is thus understandable that the research is severely lacking on this topic in bilingual populations, since researchers cannot come to a consensus on the relation between sibling factors and monolingual language acquisition.

Siblings may play a particularly important role in bilingual families because in bilingual homes it is often the case (in the U.S.) that the children speak more English than the adults. Thus, for a young language-learning child, older siblings might be the primary source of English input. The present study was designed to test the hypothesis that language use with older siblings is related to English language proficiency in bilingually-developing toddlers.

Method

Participants

Sixty-two children (37 males and 25 females) whose parents described their children as bilingual participated. All children were between 16 and 30 months of age (Mean age = 22.55 months, SD = 3.90); they resided in South Florida, in the United States. Of the 62 children, 28 had at least one older sibling. All participants were healthy, full term children born in the United States. In 22 of the bilingual homes, the language other than English was Spanish; other second languages included Portuguese, Creole, Hebrew, French, and others—all in small numbers.

Procedure

To measure English language development, children's primary caregivers were interviewed regarding their child's vocabulary development using the English-version of the MacArthur-Bates Communicative Development Inventory: Words and Sentences (CDI) (Fenson et al., 1993). Percentile score for productive vocabulary was calculated for each child from the CDI. In addition, all caregivers provided information on family demographic characteristics and on the home language environment via a 100-item structured interview. Measures of the percent of time

children heard English overall, in conversation with their parents, and in conversation with their siblings were drawn from the interview responses. In a separate question, parents were asked to indicate whether the language the target child spoke with his or her sibling was best characterized as “English,” “other,” or “mixed.”

Results

The mean overall percent of English spoken in the home was 62.79 ($SD = 27.49$), ranging from 0% to 99%. The mean for the child CDI percentile scores was 25.08 ($SD = 23.14$) and ranged from the 5th percentile to the 90th percentile. All parents in the sample had completed high school and 56.5% of mothers and 53.2% of fathers had completed either a 4-year or advanced college degree.

The percent of English language use at home was a positive and significant predictor of toddlers’ English vocabulary percentile scores, $r(n=60) = .34, p = .003$. Children who had older siblings ($M = 30.36, SD = 25.49$) had higher English vocabulary percentile scores than children without older siblings ($M = 20.74, SD = 20.38$), $t(60) = -1.65, p = .05$ (see Figure 1). Among the 28 children with older siblings, the percent of time English was used with siblings was also a positive and significant predictor of English proficiency ($r(n=28) = .41, p < .05$, see Figure 2). When language use with siblings was categorized as English, Other, or Mixed (English and another language), this variable also showed a significant relation to the toddlers’ English percentile scores. For children with older siblings, English vocabulary scores were higher for children who spoke to their sibling(s) in English ($M = 45.45, SD = 27.88$) than for children who spoke to their sibling(s) in another language ($M = 5.00, SD = 0.00$) or a mix of English and another language ($M = 20.00, SD = 19.58$), $F(2, 26) = 5.21, p < .01$, one-tailed (see Figure 3).

Discussion

For children in bilingual homes in the U.S., older siblings appear to be significant sources of English input. Children who had at least one older sibling had higher English vocabulary scores than first-born or only children, and among the children with at least one older sibling, variance in the amount of English heard from sibling(s) explained variance in toddlers' English proficiency. Although many findings indicate that one-to-one interaction with an adult is an optimal source of language-advancing input for young children, there is also evidence that children are flexible users of multiple sources of language-advancing input (Hoff, 2006). In the case of children who hear a minority, heritage language from the adults in their household, older siblings may provide a significant source, and in some cases perhaps the only source of the majority, community language. It is a topic for future research to more clearly delineate how family structure and language use in bilingual homes are related to each other and to children's bilingual development.

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Figure Captions

Figure 1. Mean CDI vocabulary percentile scores for children with and without older siblings.

Figure 2. Percent of time child speaks to siblings in English and English CDI vocabulary percentile scores.

Figure 3. Language spoken with siblings and child English CDI vocabulary percentile scores.





