The expressive vocabulary of Lebanese Arabic-speaking toddlers
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Background and Context

Research on language development pointed out some common characteristics that children exhibit during acquisition. Expressive language emerges early, and at around 10 months of age the child produces his first words. Nowadays, cross linguistic studies are revealing characteristics that seem specific to each language.

**Vocabulary size**
- Maternal language has an effect on vocabulary size;
- Children of populations who speak a richly inflected language have the smallest vocabularies;
- Allocation of more resources to morphology during the acquisition of such languages could explain these differences (Thordardottir, Ellis-Weismer et Evans, 2002).

**Vocabulary composition**
- Early lexicon consists mostly of nouns followed by verbs (Bornstein et al., 2004) but:
  - Korean children have more verbs than their English-speaking peers (Kim, McGregor & Thompson, 2000);
  - Chinese children have more verbs in their vocabulary than nouns Tardif (1996).
- Explanations:
  - Language structure: Verbs are in a final stressed position;
  - Parental input: Verbs might be elicited more frequently than nouns in those populations.

**Lebanese context**
- Lebanese children are exposed to diverse languages: Arabic, French, English, or combinations of two or more of these languages;
- Arabic is a highly inflected language in comparison to French

How would lexical development of Arabic-speaking children compare to the French monolingual and bilinguals children?

Material and Methods

**Participants**
- 210 children and their families;
- French/Arabic bilinguals (n=64), French monolinguals (n=74), Arabic monolingual (n=72);
- Living in Beirut, Lebanon and its suburbs, recruited through daycares.

**Procedure**
- An adapted version of the “MacArthur’s-Bates Communicative Development” (MBCDI) was created in French and in Arabic;
- It consists of a list of approximately 600 words that could be said by children aged between 16 and 30 months;
- Parents were asked to check words produced by their child;
- Parents of monolingual children completed the corresponding form in Arabic or French; parents of bilingual children completed both French and Arabic versions.

**Analysis**
- Mean scores were calculated for each group;
- For bilingual children the conceptual score were compared;
- Percentage of each lexical categories were calculated for each group;
- Means and percentages were compared using a 3(linguistic group) x 2(age group) ANOVA and Post-Hoc comparisons.
Results

**Vocabulary size**

- Arabic-speaking children of 26-28 months old had significantly lower vocabulary size than their peers ($F (2,108)=12.16, p<0.001$):
  - Arabic speakers had a mean of 215 words ($SD=121$);
  - Bilinguals had a mean of 341 words ($SD=128$);
  - French speaking had a mean of 342 words ($SD=117$);
- No differences were found between linguistic groups in the younger age range (figure 1)

**Vocabulary composition**

- 17-19 months old Arabic-speaking children had a smaller proportion of nouns in their early vocabulary composition ($M=40.26\%, SD=21.96$) than their bilingual ($M=52.27\%, SD=14.44$) and French speaking peers ($M=56.99\%, SD=11.82$) ($F (2,96)=9.06, p<0.001$);
- 17-19 months old Arabic-speaking higher proportion of verbs ($M=28.04\%, SD=27.89$) than their bilingual ($M=9.65\%, SD=13.89$) and French speaking peers ($M=6.9\%, SD=6.37$) ($F(2,96)=12.51, p<0.001$) (figure 2)

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**Fig. 1: Comparison of mean expressive vocabulary scores**

**Fig. 2: Vocabulary composition of Lebanese children**
Discussion

Smaller vocabulary size
Morphological richness
- Arabic is a richly inflected language. Children will thus focus their attention on morphology acquisition rather than on new words while growing up.
- This result has also been shown for Hebrew speaking children, whose language is similar to Arabic, when compared to their English-speaking peers (Matial, Dromi & Bornstein, 2000).

Socio-economical status in Lebanon
- Parents with a low socio-economical status are more likely to be Arabic-speaking
- Middle and high economical class are either bilingual speakers or French-speaking.
- Socio-economical status could then explain the smaller vocabulary size (children from low-income families tend to have smaller vocabulary sizes) (Hoff, 2003).

Exposure to another language
- The majority of the Lebanese population is bilingual;
- A child could be learning some word in another language;
- Parents might have not reported the words that their child knew in that other language.
- However based on our selection criteria those children were exposed more than 80% of the time to Arabic, and were still considered monolingual since exposure to another language was minimal.

Vocabulary composition
Input effect:
- Parents could be using verbs in a more accentuated way;
- Parents could be producing more verbs and induce more verbs elicitation;
- This effect has already been observed for Korean children (Kim et al., 2000)

Morphology effect
- The differences in vocabulary composition disappear with age possibly because Arabic speaking children don’t learn many new verbs, but rather new morphology skills.

References


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