

Acquisition of Universal Quantifier-Negation Scope Interaction in Bilingual Children

This study investigates Korean-English (K-E) bilingual children's acquisition of scope interaction between quantifiers and negation in English, using the Truth Value Judgment Task methodology of Crain and Thornton (1998). The K-E bilinguals in our study show different developmental patterns from those reported for monolingual children in previous studies (Musolino 1998; Kim *et al* 2003). I argue that transfer of the syntactic position of the Korean negation to English explains this result.

Korean and English differ with respect to possible scope interactions of QNPs and negation. Both a wide scope reading and a narrow scope reading are allowed for subject QNPs and object QNPs in long form negation in Korean as represented in (1). On the other hand, only a narrow scope reading is possible for object QNPs in English (2a) but subject QNPs can take either wide or narrow scope (2b).

- (1) a. Miki-ka **motun** orenci-lul sa-ci **anh**-ass-ta ($\forall > \text{neg}$, $\text{neg} > \forall$)
 Miki-nom **every** orange-acc buy-ci **neg**-pst-decl
- b. **Motun** mal-i wultali-lul num-ci **anh**-ass-ta ($\forall > \text{neg}$, $\text{neg} > \forall$)
 Every horse-nom fence-acc jump.over-ci **neg**-pst-decl
- (2) a. Mickey didn't buy every orange ($\text{neg} > \forall$, $*\forall > \text{neg}$)
 b. Every horse didn't jump over the fence ($\forall > \text{neg}$, $\text{neg} > \forall$)

The experiments were designed as partial replications of Musolino's (1998) work on English L1 acquisition of quantifier-negation interaction. I tested 15 5-7-year-old K-E bilingual children. The experiments were designed to test two factors with two levels each: scope difference ($\text{neg} > \forall$ vs. $\forall > \text{neg}$) and grammatical position of QNPs (subject vs. object). I found that bilingual children allowed both a wide scope reading (100%) and a narrow scope reading (80%) for subject quantifiers interacting with negation. This result contrasts with Musolino's (1998) study where only 10% accepted a narrow scope reading in subject condition. In addition, K-E bilingual children accepted a wide scope reading (100%) as well as a narrow scope reading (73.7%) in object condition, revealing their non-target scope ambiguity.

I suggest that the account of why the K-E bilinguals allow scope ambiguity follows from the structural position of Korean negation, which is argued to adjoin to either VP or V^0 . This system is transferred to English and interferes with the acquisition of the English system, where negation takes a higher position in the structure. For example, the non-target scope ambiguity of object QNPs is derived from the transferred negation positional flexibility as represented in LF (3).

- (3) [_{TP} Mickey₁ did [_{VP} **not** [_{VP} every orange₂ [_{VP} t₁ [_{V'} [_V (**not**) buy] t₂]]]]]

The negation wide scope reading is derived by adjoining negation to VP. Adjunction of negation to V^0 leads to the wide scope reading of object QNPs over negation.

The results of this study are of paramount importance for fully understanding of language acquisition of K-E bilingual children.

References

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