The quantificational asymmetry as a language-specific phenomenon

Dutch and English are two closely related languages of the Germanic family, yet the acquisition of the Dutch binding principles by Dutch monolingual and Turkish-Dutch bilingual children is different from the acquisition of the English binding principles by English monolingual and Turkish-English bilingual children.

We compared the comprehension of Dutch reflexives (*zichzelf* 'SE-self') and pronouns (*hem* 'him') by Dutch monolingual (n=29) and Turkish-Dutch bilingual children (n=33). We used a Picture Verification Task (van der Lely, 1997) where children judged whether the sentence matched the picture. Items were of the type [NP says [NP V NP]], where the embedded subject could be a referential NP (*the rabbit*) or a QP (*every rabbit*), and the embedded object a pronoun or a reflexive. When we compared our results to Marinis & Chondrogianni's study (2011) into English monolingual (n=33) and Turkish-English bilingual children (n=39), – who used the same task − we discovered differences between Dutch and English, but not between the monolinguals and the bilinguals. The differences were found in these mismatch conditions (where test sentences did not match the picture):

	Test sentence	*Picture*
(1)	[the horse says [the rabbit V pronoun]]	(rabbit scratching himself)
(2)	[the horse says [every rabbit V pronoun]]	(rabbits scratching themselves)
(3)	[the horse says [every rabbit V reflexive]]	(rabbits scratching horse)

The differences:

(A) Although both Dutch- and English-speaking children erroneously accept a local antecedent for a pronoun in (1) (presumably because they mistakenly have them co-refer in the discourse, cf. Chien & Wexler (1990)), only English-speaking children reject this when the embedded subject is a QP, as in (2). In other words, only they show the Quantificational Asymmetry (i.e. children perform better on QP-antecedents than on NP-antecedents when the object is a pronoun).

(B) For (3), English-speaking children score 50% but Dutch-speaking children 90% correct.

We hypothesise that both contrasts have the same source: the stronger preference for the distributive reading in Dutch-speaking children (cf. Drozd & van Loosbroek, 2006). Under a distributive reading, each agent is paired to an object (i.e. rabbit-1→ him, rabbit-2 → him, rabbit-3 → him) and the interpretation of (2) becomes similar to that of (1), due to a coreference strategy. Hence, no Quantificational Asymmetry arises. Under the collective reading (cf. Novogrodsky, Roeper, Yamakoshi, 2012) the singular pronoun cannot take the embedded subject as antecedent and the sentence is correctly rejected. This causes a Quantificational Asymmetry in English. Moreover, in (3) the collective interpretation for *every* clashes with a singular reflexive: after all, one cannot collectively perform a reflexive action on a single entity. As a consequence, English-speaking children interpret *himself,* an ambiguous anaphor, as a pronoun *him* plus a focus marker *self*, so that it can legitimately take the main clause subject as its antecedent. Children therefore erroneously accept the sentence-picture pair in (3).

This hypothesis makes two predictions: (i) in Dutch, (3) should yield a better performance than in English, because the distributive reading and the unambiguous reflexive *zichzelf* lead children to reject the sentence-picture pair; (ii) in English, [the horse says [the rabbit V reflexive]] should yield better results than (3), because the embedded subject is not a QP triggering a collective reading and can thus be the antecedent for the reflexive. This is exactly

what the data show (van Koert, Koeneman, Weerman & Hulk, submitted). So, the language-specific properties of the languages involved cause differences in the acquisition of the binding principles, even where two closely related languages, such as Dutch and English, are concerned.

References

Chien, Y.-C. and K. Wexler. (1990). Children's knowledge of locality conditions in binding as evidence for the modularity of syntax and pragmatics. *Language Acquisition*, 1, 225-295.

Drozd, K.F. and E. van Loosbroek (2006). The effect of context on children's interpretations of universally quantified sentences. In V. van Geenhoven (Ed.), *Semantics meets Acquisition*. Dordrecht: Kluwer.

van Koert, M.J.H., O.N.C.J. Koeneman, F.P. Weerman, A.C.J. Hulk. (submitted). The Quantificational Asymmetry: a comparative look. *Lingua*.

van der Lely, H. K. J. (1997). *Advanced-syntactic test of pronominal reference (A-STOP). dldcn.com.*

Marinis, T. and V. Chondrogianni. (2011). Comprehension of reflexives and pronouns in sequential bilingual children: Do they pattern similarly to L1 children, L2 adults, or children with specific language impairment? *Journal of Neurolinguistics*, 24(2), 202-212.

Novogrodsky, R., T. Roeper., and K. Yamakoshi, (2012). The Collective-Distributive reading of each and every in language acquisition. In S. Stavrakaki, X. Konstantinopoulou and M. Lalioti, (Eds.), *Advances in Language acquisition*. Cambridge Scholars Publishing.

Philip, W.C.H. (2005). Pragmatic control of specificity and scope: Evidence from Dutch L1A. In E. Maier, C. Bary and J. Huitink (eds.), *Proceedings of SUB9*. Nijmegen: NCS, 271-285.