

The Overt Pronoun Constraint and Korean: An Experimental Study

The Issue According to the Overt Pronoun Constraint (OPC) proposed by Montalbetti (1984), overt pronouns cannot be construed as bound variables in *pro*-drop languages in general. This constraint is widely assumed to be a principle of Universal Grammar (Kanno 1997, White 2003, among others). Korean, as a *pro*-drop language, is therefore predicted to be governed by the OPC too: in (1), a bound variable reading of the Korean overt pronoun *ku* ‘he’ should not be available.

- (1) Motwu-ka ku-ka keyim-ul cal ha-n-tako malha-n-ta.
Everyone-NOM he-NOM game-ACC well play-PRESS-COMP say-PRESS-DECL
‘Everybody is saying that he plays games well.’

There has been, however, much disagreement in the literature regarding the interpretational status of the Korean pronoun *ku*: while for Kang (1988) and Noguchi (1997), *ku* can have a bound variable reading, this is not the case for Hong (1985) and Lee (2001).

In a truth-value judgement task experiment, we addressed two research questions: (i) can the Korean pronoun *ku* be construed as a bound variable?, and (ii) is the OPC universal? We found that while some speakers of Korean consistently allowed *ku* to take a quantified NP as its antecedent, others consistently did not, undermining the putative universality of the OPC.

The Method In our experiment, each participant was first presented with a sentence describing a discourse context, followed by a target sentence. The task of the participant was to judge whether the target sentence described the given context truthfully, by assigning ‘1’ for *true* and ‘0’ for *false*. Each target sentence contained a referential NP or *motwu* ‘everybody’ as a matrix subject and *ku* or *pro* as an embedded subject, and each context was compatible with the matrix subject or discourse binding interpretation of the embedded pronoun in the target sentence. The experiment thus had 3 within-subjects factors, with 2 levels each: Subject Type (referential or quantified), Pronoun Type (overt or null), and Context Type (subject binding or discourse binding), resulting in 8 different conditions. (2) illustrates a test trial in the *quantified-overt-subject binding* (*Qnf-Ovt-Sbj*) condition. The context sentences are given here in English, to save space.

- (2) a. Hanswu, Cinswu, and Minswu are playing basketball in a basketball court. Hanswu says that self (caki) plays basketball well. Cinswu also says that self (caki) plays basketball well. Minswu also says that self (caki) plays basketball well. (Context)
b. Motwu-ka nongkwu-cang-eyse ku-ka nongkwu-lul cal ha-n-tako
Everyone-NOM basketball-court-at he-NOM basketball-ACC well play-PRESS-COMP
malha-n-ta.
say-PRESS-DECL
‘Everybody is saying at a basketball court that he plays basketball well.’ (Target sentence)

18 native speakers of Korean participated in the experiment. Each participant received 32 test trials (4 trials per condition) and 24 filler trials in a uniquely generated random order.

Findings Figure 1 summarizes the mean acceptance rates by condition. A repeated-measures ANOVA revealed two main effects: Context Type ($F(1,17)=27.95$, $p < .001$) and Pronoun Type ($F(1,17)=13.06$, $p=.002$). They each indicate that regardless of Subject Type and Pronoun Type, speakers are significantly more likely to accept the matrix subject than the discourse binding interpretation of the embedded pronouns, and independent of Subject Type and Context Type, speakers are significantly more likely to accept sentences with overt pronouns than null pronouns. More importantly, we found an interaction between Pronoun Type and Context Type ($F(1,17)=47.57$, $p < .001$) indicating that only with null pronouns, speakers are more likely to accept the matrix subject than the discourse binding interpretation. We also found an

interaction among all three factors ($F(1,17)=9.91, p=.006$): with quantified matrix subjects, speakers are more likely to accept the discourse than the matrix subject binding interpretation for the embedded overt pronoun.

This last finding appears to support that the OPC may be active in Korean, but a closer inspection of the data reveals a far more complex state of affairs. First, the mean acceptance rate we obtained in the *Qnf-Ovt-Sbj* condition is 54%, as shown in Figure 1, contradicting the 0% acceptance rate predicted by the OPC. Second, most participants provided consistent answers to the test trials in the *Qnf-Ovt-Sbj* condition, as shown in Figure 2: they either consistently accepted or consistently rejected the bound variable interpretation of *ku*. So, the 54% acceptance rate in this condition is a result of half of the participants accepting the bound variable *ku* and not each participant accepting it half of the time. This strongly supports the presence of an inter-speaker variation regarding the status of *ku* in Korean.

Discussion and Conclusion Returning to our research questions, we found that while some speakers consistently allowed *ku* to have a bound variable interpretation, others consistently did not. This situation is highly suggestive of a presence of an inter-speaker variation regarding the status of *ku*. The disagreement in the literature on the interpretation of *ku* may be a reflection of this variable status of *ku*. A consequence of our finding is that the OPC cannot be considered to be a universal principle. Rather, our results support that the OPC is a constraint available in the grammar that needs to be acquired by the learner, and not a principle that comes for free for all *pro*-drop languages. Recast this way, we expect to find cross-linguistic variation regarding the interpretational status of pronouns: pronouns cannot be bound variables only in a language where the OPC is active. Along the same lines, the inter-speaker variation regarding the status of *ku* in Korean can be attributed to a situation where only half of the speakers have acquired the OPC.

A question that remains is why *ku* in Korean is subject to such a variation. That is, why is it that only some of the speakers of Korean acquire OPC? This may be attributed to the fact that overt pronouns such as *ku* is not commonly used in spoken Korean. As learners of Korean do not have sufficient evidence or experience from the input data regarding the status of *ku*, some may acquire a grammar where overt pronouns are very similar to null pronouns, and others may acquire a grammar that assumes a unique set of properties for overt pronouns resulting in constraints such as the OPC (Han *et al.* 2007). Evaluating this line of inquiry is left for future research.

Selected References Han *et al.* (2007). V-rasing and grammar competition in Korean: Evidence from negation and quantifier scope. *LI* 38. Hong (1985). *A and A' binding in Korean and English: Government-binding parameters*. Ph.D. diss., UC. Kang (1988). *Topics in Korean syntax: Phrase structure, variable binding and movement*. Ph.D. diss., MIT. Kanno (1997). The acquisition of null and overt pronominals in Japanese by English speakers. *SLR*. Lee (2001). On bound pronouns and anaphors. *The KGGC* 11. Montalbetti (1984). *After binding: On the interpretation of pronouns*. Ph.D. diss., MIT. Noguchi (1997). Two types of pronouns and variable binding. *Language* 73. White (2003). *Second language acquisition and universal grammar: from initial to steady state*. CUP.

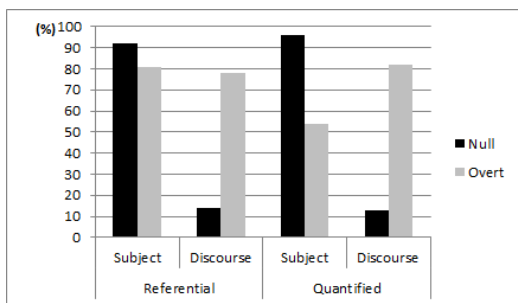


Figure 1: Mean acceptance rates by condition

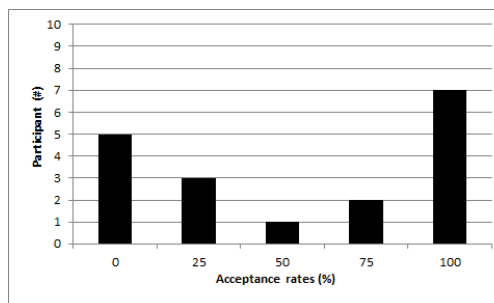


Figure 2: Acceptance rates in *Qnf-Ovt-Sbj* condition