

Backward object control in Korean: The Empirical Evidence

Philip J. Monahan
University of Florida

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1. Introduction

- Korean object control predicates show a nominative/accusative case alternation on the *persuadee* DP, as in (1).

(1) cheolsu-neun **yeonghi-leul/ka** kake-e ka-tolok seolteukha-eoss-ta
cheolsu-top **yeonghi-acc/nom** store-to go-comp persuade-past-decl
'cheolsu persuaded yeonghi to go to the store'

- I argue that the difference in case equates to a difference in structural position.
- Accusative case: constituent of the matrix clause binding a null element Δ in the embedded clause (2). (ordinary control)
- Nominative case: constituent of the embedded clause binding a null element Δ in the matrix clause, (3). (backward control)

(2) cheolsu-neun **yeonghi-leul_i** [Δ_i kake-e ka-tolok] seolteukha-eoss-ta
cheolsu-top **yeonghi-acc** store-to go-comp persuade-past-decl
'cheolsu persuaded yeonghi to go to the store' (ordinary control)

(3) cheolsu-neun Δ_i [**yeonghi-ka_i** kake-e ka-tolok] seolteukha-eoss-ta
cheolsu-top **yeonghi-nom** store-to go-comp persuade-decl
'cheolsu persuaded yeonghi to go to the store' (backward control)

2. Goals of the talk

- Provide evidence supporting the analysis of Korean *persuade* as a control predicate and not an ECM predicate.
- Illustrate that the case alternation found on the *persuadee* DP indicates a difference in syntactic position.
- Present empirical evidence in support of the novel claim that Korean object control predicates license a backward control configuration.
- Provide evidence in support of the existence of a null element in the object control structures.

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3. Korean *persuade* is not ECM

- ECM predicates typically select for only one internal complement, a clause, and an external agent. ECM on the embedded subject arises because the embedded subject raises into the matrix clause to check its accusative case (JS Lee 1992; Yoon 1996; Baek 1997).
- Object control predicates, on the other hand, select for two internal arguments, a complement DP and a complement clause. The complement DP is coindexed with the null subject in the embedded clause.
- It is well known that Korean ECM predicates license a similar nominative/accusative case alternation on the embedded subject (O'Grady 1991; Yoon 1996; Baek 1997), as in (4).

(4) john-eun **mary-leul/ka** yeppeu-ta-ko mit-neun-ta
john-top **mary-acc/nom** pretty-decl-comp believe-pres-decl
'john believes mary to be pretty'

- I show that Korean *persuade* selects for three semantic arguments while Korean ECM selects for two.
- Furthermore, I also show that Korean *persuade* places semantic requirements on the case alternating DP, whereas Korean ECM does not.

3.1 Non-control usage

- Korean *persuade* can license an additional overt internal argument, as in (5). Like English, when there is an overt matrix object and overt embedded subject, the embedded clause cannot be non-finite.

(5) cheolsu-neun **yeonghi-leul/eke** suyeong-ka ka-yaha-n-ta-ko
cheolsu-top **yeonghi-acc/dat** suyeong-nom go-should-pres-decl-comp
seolteukha-eoss-ta
persuade-past-decl
'cheolsu persuaded yeonghi that suyeong should go to the store'

- Korean ECM predicates cannot license an additional overt argument because ECM predicates permit only one internal argument, as indicated by (6).

(6) *cheolsu-neun **yeonghi-leul suyeong-i** yeppeu-ta-ko mit-eoss-ta
cheolsu-top **yeonghi-acc suyeong-nom** pretty-decl-comp believe-past-decl
(*cheolsu believed yeonghi suyeong to be pretty')

- The ability to license an additional argument in the *persuade* construction supports the claim that Korean *persuade* selects for three semantic arguments, while Korean ECM selects for only two.

3.2 Passive/active synonymy

- The passive form (7b) is not semantically synonymous with its active counterpart in (7a). The difference is in the entity being *persuaded*. In the active form it is the DP *yeonghi*, while in the passive it is the DP *suyeong*.

- (7) a. cheolsu-neun **yeonghi-ka/%leul** suyeong-eul inteophyu ha-tolok
 cheolsu-top **yeonghi-nom/acc** suyeong-acc interview do-comp
 seolteukha-eoss-ta
 persuade-past-decl
 ‘cheolsu persuaded **yeonghi** to interview suyeong’
- b. cheolsu-neun **suyeong-ka/%leul** yeonghi-eke inteophyu pat-tolok
 cheolsu-top **suyeong-nom/acc** yeonghi-dat interview pass-comp
 seolteukha-eoss-ta
 persuade-past-decl
 ‘cheolsu persuaded **suyeong** to be interviewed by yeonghi’ (not synonymous with 7a)

- This lack of passive/active synonymy suggests that Korean *persuade* is selecting for the case alternating DP.
- We do not see the same lack of passive/active synonymy in the ECM examples (active in (8a); passive in (8b))

- (8) a. cheolsu-neun [yeonghi-ka suyeong-eul manna-ass-ta-ko] mit-eoss-ta
 cheolsu-top yeonghi-nom suyeong-acc meet-past-decl-comp believe-past-decl
 ‘cheolsu believed (that) yeonghi to have met suyeong’
- b. cheolsu-neun [suyeong-ka yeonghi-e euihaeseo manna-jyeoss-ta-ko] mit-eoss-ta
 cheolsu-top suyeong-nom yeonghi-by meet-pass-decl-comp believed
 ‘cheolsu believed (that) suyeong to have been met by yeonghi’ (synonymous with 8a)

- This supports the claim that ECM predicates in Korean do not select for the case alternating DP, while Korean *persuade* does.

3.3 Selectional restrictions

- By placing a non-persuadable entity in the case alternating position, we expect an anomalous reading, as in (9), supporting the claim that Korean *persuade* selects for and thus places semantic requirements on the *persuadee* DP.

- (9) #cheolsu-neun **tol-i/eul** tteoleoji-tolok seolteukha-eoss-ta
 cheolsu-top **rock-nom/acc** fall-comp persuade-past-decl
 ‘#cheolsu persuaded the rocks to fall’

- The same anomalous reading does not arise in ECM constructions because the matrix predicate does not impose semantic requirements on the embedded subject.

- (10) cheolsu-neun **tol-i** tteoleoji-n-ta-ko mit-eoss-ta
 cheolsu-top **rock-nom** fall-pres-decl-comp believe-past-decl
 ‘cheolsu believes the rocks to be falling’

3.4 Summary of section

- Korean *persuade* selects for three semantic arguments while Korean ECM selects for only two.
- In selecting for the additional argument, Korean *persuade* places selectional restrictions on the case alternating DP.
- Coupled with the assumption that argument selection is local, these facts suggest a control analysis.

4. Constituent analysis of Korean *persuade* constructions

- In this section, I propose two plausible constituency structures to account for the case alternation and subsequently argue that the constituency structure showing the nominative DP as a constituent of the embedded clause is the correct one.

4.1 Proposed constituency structures

- In the Subject/Object Analysis, the nominative marked DP is a constituent of the embedded clause (11a), while the accusative marked DP is a constituent of the matrix clause (11b).

- (11) Subject/Object Analysis (SOA)
- a. cheolsu-neun **[yeonghi-ka kake-e ka-tolok]** seolteukha-eoss-ta
 cheolsu-top **yeonghi-nom** store-to go-comp persuade-past-decl
 ‘cheolsu persuaded yeonghi to go to the store’
- b. cheolsu-neun **yeonghi-leul [kake-e ka-tolok]** seolteukha-eoss-ta
 cheolsu-top **yeonghi-acc** store-to go-comp persuade-past-decl
 ‘cheolsu persuaded yeonghi to go to the store’

- In the Object Analysis, syntactic position does not vary with case, and the case alternating DP is a constituent of the matrix clause regardless of whether it shows nominative or accusative case.

- (12) Object Analysis (OA)
 cheolsu-neun **yeonghi-leul/ka** [kake-e ka-tolok] seolteukha-eoss-ta
 cheolsu-top **yeonghi-acc/nom** store-to go-comp persuade-past-decl
 ‘cheolsu persuaded yeonghi to go to the store’

4.2 Case in monoclausal structures

- In a monoclausal structure, nominative case is not permitted on the object DP, an incorrect predication made by the OA. The SOA, on the other hand, makes this prediction because nominative case is not licensed in matrix object position.
- (13) cheolsu-neun **yeonghi-leul/*ka** seolteukha-eoss-ta
 cheolsu-top **yeonghi-acc/*nom** persuade-past-decl
 ‘cheolsu persuaded yeonghi’

4.3 Temporal adverb distribution

- Temporal adverbs in Korean are clausebound in their scope (Yoon 1996).
 □ A matrix adverb is able to follow the accusative marked *persuadee* DP (14), while it is unable to follow the nominative marked *persuadee* DP (15).
- (14) cheolsu-neun **yeonghi-leul nae-il** kake-e maeil ka-tolok seolteukha-l keo-ya
 cheolsu-top **yeonghi-acc tom.** store-to everyday go-comp persuade-fut-decl
 ‘tomorrow cheolsu will persuade yeonghi to go to the store everyday’
- (15) *cheolsu-neun **yeonghi-ka nae-il** kake-e maeil ka-tolok seolteukha-l keo-ya
 cheolsu-top **yeonghi-nom tom.** store.to everyday go-comp persuade-fut-decl
 ‘tomorrow cheolsu will persuade yeonghi to go to the store everyday’

4.3.1 OA analysis of adverb facts

- The OA correctly predicts the grammaticality of (14), because the matrix adverb can still be construed in the matrix clause, as in (16).
- (16) cheolsu-neun **yeonghi-leul nae-il** [kake-e maeil ka-tolok] seolteukha-l keo-ya
 cheolsu-top **yeonghi-acc tom.** store-to everyday go-comp persuade-fut-decl
 ‘tomorrow, cheolsu will persuade yeonghi to go to the store everyday’
- The OA, however, fails to predict the ungrammaticality of (15), because if the nominative marked DP is a constituent of the matrix clause, the matrix adverb should be able to follow it.
- (17) *cheolsu-neun **yeonghi-ka nae-il** [kake-e maeil ka-tolok] seolteukha-l keo-ya
 cheolsu-top **yeonghi-nom tom.** store.to everyday go-comp persuade-fut-decl
 ‘tomorrow, cheolsu will persuade yeonghi to go to the store everyday’

4.3.2 SOA analysis of adverb facts

- The SOA correctly predicts the grammaticality of (15), as the accusative marked DP is a constituent of the matrix clause, and thus, the matrix adverb is able to follow it.
- (18) cheolsu-neun **yeonghi-leul nae-il** [kake-e maeil ka-tolok] seolteukha-l keo-ya
 cheolsu-top **yeonghi-acc tom.** store-to everyday go-comp persuade-fut-decl
 ‘tomorrow, cheolsu will persuade yeonghi to go to the store everyday’
- The SOA, however, also correctly predicts the ungrammaticality of (19), as the nominative marked DP is a constituent of the embedded clause, and thus the matrix adverb is forced to be construed inside the embedded clause. There, it is unable to take matrix scope and is ungrammatical.
- (19) *cheolsu-neun [**yeonghi-ka nae-il** kake-e maeil ka-tolok] seolteukha-l keo-ya
 cheolsu-top **yeonghi-nom tom.** store.to everyday go-comp persuade-fut-decl
 ‘tomorrow, cheolsu will persuade yeonghi to go to the store everyday’

4.4 Scrambling

- The embedded clause is unable to precede the nominative marked DP, while it is able to precede the accusative marked DP, as in (20).
- (20) cheolsu-neun **kake-e ka-tolok yeonghi-leul/*ka** seolteukha-eoss-ta
 cheolsu-top **store-to go-comp yeonghi-acc/*nom** persuade-past-decl
 ‘cheolsu persuaded yeonghi to go to the store’

4.4.1 OA analysis of scrambling facts

- Because the *persuadee* DP is in the same syntactic position regardless of case, the OA fails to predict a contrast between the grammatical (21) and the ungrammatical (22).
- (21) cheolsu-neun [kake-e ka-tolok]_i **yeonghi-leul** *t_i* seolteukha-eoss-ta
 cheolsu-top store-to go-comp **yeonghi-acc** persuade-past-decl
 ‘cheolsu persuaded yeonghi to go to the store’
- (22) *cheolsu-neun [kake-e ka-tolok]_i **yeonghi-ka** *t_i* seolteukha-eoss-ta
 cheolsu-top store-to go-comp **yeonghi-nom** persuade-past-decl
 ‘cheolsu persuaded yeonghi to go to the store’

4.4.2 SOA analysis of scrambling facts

- Because there is a difference in structural position dependent upon case, the SOA predicts the contrast between the grammatical (23) and the ungrammatical (24). Because the accusative DP is a constituent of the matrix clause the embedded clause can scramble without it.

(23) cheolsu-neun [kake-e ka-tolok]_i **yeonghi-leul** _{t_i} seolteukha-eoss-ta
 cheolsu-top store-to go-comp **yeonghi-acc** persuade-past-decl
 ‘cheolsu persuaded yeonghi to go to the store’

- However, because according the SOA, the nominative marked DP is a constituent of the embedded clause, the embedded clause is unable to scramble without it.¹

(24) *cheolsu-neun kake-e ka-tolok_i [**yeonghi-ka** _{t_i}] seolteukha-eoss-ta
 cheolsu-top store-to go-comp **yeonghi-nom** persuade-past-decl
 ‘cheolsu persuaded yeonghi to go to the store’

4.5 Summary of section 4

- In this section, I presented evidence in support of the claim that a difference in case equates to a difference in syntactic position.
- When the *persuadee* DP is **accusative**, it is a constituent of the embedded clause, as in (2).
- When the *persuadee* DP is **nominative**, it is a constituent of the matrix clause, as in (3).

(2U) cheolsu-neun **yeonghi-leul**_i [**Δ_i** kake-e ka-tolok] seolteukha-eoss-ta
 cheolsu-top **yeonghi-acc** store-to go-comp persuade-past-decl
 ‘cheolsu persuaded yeonghi to go to the store’ (ordinary control)

(3U) cheolsu-neun **Δ_i** [**yeonghi-ka_i** kake-e ka-tolok] seolteukha-eoss-ta
 cheolsu-top **yeonghi-nom** store-to go-comp persuade-decl
 ‘cheolsu persuaded yeonghi to go to the store’ (backward control)

5. Evidence for the null element

- In this section, I present evidence for the existence of the null element in both the forward control construction (§5.1) and the backward control construction (§5.2 and §5.3).

¹ Another way to construe these facts is that it is not scrambling, but rather generation of argument order. The nominative DP is not an argument of the matrix clause and is thus unable to reside in a position where an overt argument of the matrix clause (the accusative DP) can. The SOA and not the OA predict this contrast.

5.1 Honorific licensing

- In Korean, only honorific subjects, not objects, can license honorific marking on the verb, as illustrated in the contrast between (25) and (26).

(25) seonsaeng-**nim**-i suhak-eul kaleuchi-**si**-n-ta
 teacher-**hon**-nom mathematics-acc teacher-**hon**-pres-decl
 ‘the teacher teaches mathematics’
 (Hong 1994: 100)

(26) *minsu-ka seonsaeng-**nim**-eul manna-**si**-eoss-ta
 minsu-nom teacher-**hon**-acc meet-**hon**-past-decl
 ‘minsu met the teacher’
 (Hong 1994: 102)

- This fact is again illustrated in (27), where the embedded subject licenses honorific marking on the embedded verb.

(27) cheolsu-neun [seonsaeng-**nim**-i kake-e ka-**si**-tolok] seolteukha-eoss-ta
 cheolsu-top teacher-**hon**-nom store-to go-**hon**-comp persuade-past-decl
 ‘cheolsu persuaded the teacher to go to the store’

- In (28), however, it appears that the matrix object is licensing honorific marking on the embedded predicate, which should be illicit.

(28) cheolsu-neun seonsaeng-**nim**-eul kake-e ka-**si**-tolok seolteukha-eoss-ta
 cheolsu-top teacher-**hon**-acc store-to go-**hon**-inf persuade-past-decl
 ‘cheolsu persuaded the teacher to go to the store’

- I argue that this is acceptable because of the null element in the subject position of the embedded clause that is coindexed with the matrix predicate. It is this null element that licenses the honorific marking on the embedded verb.

(29) cheolsu-neun seonsaeng-**nim**-eul_i [**Δ_i** kake-e ka-**si**-tolok] seolteukha-eoss-ta
 cheolsu-top teacher-**hon**-acc store-to go-**hon**-inf persuade-past-decl
 ‘cheolsu persuaded the teacher to go to the store’

5.2 Quantifier agreement

- Postnominal quantifiers in Korean must agree in case with the head noun (Cho 2000), as illustrated in (30) and (31).

(30) **haksaeng-teul-i motu-ka/*leul** us-eoss-ta
 student-pl-nom all-nom/*acc laugh-past-decl
 ‘all the students laughed’ (Cho 2000:193)

- (31) mary-ka **haksaeng-teul-eul** **motu-leul/*ka** sohwanha-eoss-ta
 mary-nom **student-pl-acc** **all-acc/*nom** call-past-decl
 'mary called all the students' (Cho 2000:194)

□ Like the scrambling examples, an accusative marked quantified DP can appear in post-embedded clause position, as in (32).

- (32) cheolsu-neun [kake-e ka-tolok] **ai-teul-eul** **motu-leul** seolteukha-eoss-ta
 cheolsu-top store-to go-comp **child-pl-acc** **all-acc** persuade-past-decl
 'cheolsu persuaded all the children to go to the store'

□ In (33), however, the quantified DP is nominative and a constituent of the embedded clause, while the quantifier is accusative and a constituent of the matrix clause, which should be illicit.

- (33) cheolsu-neun [**ai-teul-i** kake-e ka-tolok] **motu-leul** seolteukha-eoss-ta
 cheolsu-top **child-pl-nom** store-to go-comp **all-acc** persuade-past-decl
 'cheolsu persuaded all the children to go to the store'

□ I argue that the grammaticality of (33) is due to the embedded subject being coindexed with a null element in the matrix clause. This null element licenses the accusative case on the quantifier, which is in the matrix clause.

- (34) cheolsu-neun [**ai-teul-i** kake-e ka-tolok] Δ_i **motu-leul_i** seolteukha-eoss-ta
 cheolsu-top **child-pl-nom** store-to go-comp **all-acc** persuade-past-decl
 'cheolsu persuaded all the children to go to the store'

5.3 Reflexive binding

□ In Korean, the reflexive anaphor *jasin* 'self' is governed by Condition A of the Binding Theory (JM Yoon 1989). Condition A states that a reflexive must be bound in its governing category.

□ In (35), however, the reflexive is a constituent of the matrix VP adjunct and is bound by the embedded subject. Because its antecedent is not a clausemate and furthermore, it does not command the reflexive, (35) should be impossible.

- (35) % cheolsu-neun [**yeonghi-ka_i** ka-l keos-eul] [_{pp} **keunyeojasin-eul_i** yuik-eul
 cheolsu-top **yeonghi-nom** go-comp **herself-gen** benefit-acc
 uihae] seolteukha-eoss-ta
 for persuade-past-decl
 'cheolsu for herself_i; benefit persuaded yeonghi_i to go'

□ However, its acceptability by most of my consultants is due, I argue, to the null element in the matrix clause that can satisfy the clausemate condition required by Condition A.

- (38) % cheolsu-neun [**yeonghi-ka_i** ka-l keos-eul] Δ_i [_{pp} **keunyeojasin-eul_i**
 cheolsu-top **yeonghi-nom** go-nomin. **herself-acc**
 yuik-eul uihae] seolteukha-eoss-ta
 benefit-acc for persuade-past-decl
 'cheolsu for herself_i; benefit persuaded yeonghi_i to go'

6. Conclusion

□ I have presented novel empirical evidence for the backward control configuration in Korean in object control predicates.

□ To the best of my knowledge, other predicates that show this configuration in Korean are *kangyohata* 'force', *chungkohata* 'advise' and *jeanhata* 'suggest'.

□ On a more general level, this paper adds to the growing database of already documented backward control configurations, most recently analyzed in Tsez (Polinsky and Potsdam 2002).

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Philip J. Monahan
 Program in Linguistics
 University of Florida
 Gainesville, FL 32611-5454
 pmonahan@ufl.edu