

The case marking strategy of second language Korean learners - Case morphology assignment independent of abstract Case -

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1. Introduction

Case particles in Korean are generally regarded as a morphological realization of abstract case. In other words, if a nominal appears with the nominative Case particle *i/ka*, it is understood as an indication that the nominal is the assigned abstract nominative case. This paper is concerned with case marking errors by second language Korean learners. I argue that the pattern of case marking errors by second language Korean learners supports the following conclusion: Korean case particles are assigned to an NP independent of the abstract case assignment.

2. Replacement errors and predicate type misanalysis

Case marking errors are generally categorized as omission errors, addition errors, and replacement errors. Replacement errors are case marking errors in which a nominative case particle is used in place of accusative case particle, and vice versa, as in (1). In (1a), nominative case particle *i/ka* appears at a position in which accusative case particle *ul/lul* is the appropriate particle. In this paper, we will be mainly focused on replacement errors of *i/ka*, use of *i/ka* in place of *ul/lul*, as in (1).

- (1) a. **palpyo-ka* *machi-keyss-supnita*
 presentation(ACC)-NOM will end
 “(We) will end the presentation. ACC
 b. *palpyo-lul* *machi-keyss-supnita*
 presentation(ACC)- ACC will end
 “(We) will end the presentation.

Previous studies on replacement errors have generally focused on the predicate types of the co-occurring predicates (Yang 2010, Yu 2015, Zhu 2018). Assuming that the case marking error reflects an error in the abstract case assignment and that case assignment is dependent on the co-occurring predicate, it was generally claimed that that replacement errors occur when learners mis-analyze the predicate type of the co-occurring predicate.

The idea is as follows. In an accusative-nominative language, the sole argument of an intransitive predicate will be assigned the nominative Case, while the internal argument of a transitive verb will be assigned the accusative Case. Therefore, if a learner mis-analyzes the transitive predicate in (3b) as an intransitive, the learner would erroneously use *i/ka* on the object *sakwa*, a position where the accusative case particle *ul/lul* would be appropriate.

- (3) a. *Tammy-ka/*lul wassta*
 T.- NOM /ACC came
 ‘Tammy came.’
 b. *Tammy-ka sakwa-lul/*ka mekessta*
 T.- NOM apple-ACC/ NOM ate
 ‘Tammy ate an apple.’

According to Zhu (2018), some predicates may be more prone to misanalysis than others. If there is a mismatch in the predicate type between first language (henceforth, L1) and Korean, or if there are two predicates that are similar in form but are different in the predicate type, learners will be more likely to mis-analyze the predicate type of these ‘confusing’ predicates than other predicates.

- (4) Examples of confusing predicates
 a. Korean *kacita* (have, transitive) vs. Chinese *yǒu* (have, intransitive/transitive)
 c. *ilwuta* (accomplish, transitive) vs. *ilwuecita* (be fulfilled, intransitive)
 d. *cohahata* (like, transitive) vs. *cohta* (like, adjective)

If predicate type misanalysis is the main cause of replacement errors, we would predict a large percent of replacement errors to arise with confusing predicates. However, according to Zhu’s report, only 39 out of 312 replacement errors of *i/ka* appear with the confusing predicates. While Zhu’s report was limited to errors produced by Chinese L1 speakers, it suggests that confusion in the predicate type is not enough to explain the replacement errors produced by second language learners of Korean.

3. The replacement errors of *i/ka* and case morphology of the subject

We argue that replacement errors are not random but systematic. The pattern of replacement errors suggests that learners utilize a case marking strategy similar to the dependent case model (cf. Marantz 1991) independent of abstract Case assignment.

3.1. The data/corpus

Korean Learners’ Corpus Search Engine published by the National Institute of Korean Language (the corpus, henceforth) was used for this study. The corpus consists of written and spoken production by second language learners of Korean. From the corpus, we examined all sentences that include NPs i) that are marked by *i/ka*, ii) whose corrected form is *ul/lul*. There were a total of 2,164 items with NPs whose original forms were either *i* or *ka* and whose corrected forms were either *ul* or *lul*.

Among the 2,164 items, 319 items with controversial error annotations were excluded. The sentences in (5) are examples of the excluded items.

- (5) a. **[ai-ka elin ttay]-pwuthe kaluchil kele*
 child-NOM young period-from teach because
 ‘Because (I) will start teaching (the child) from the time the child is young.’

- b. *e cipanil-i ...*
 um household chore-NOM
 ‘um... household chores...’
- c. *apeci-nun yetongsayng-i te cohssupnita.*
 father-TOP sister-NOM more like
 ‘(My) Father likes (my) sister more.’

In the corpus, *ka* in (5a) is annotated as an error and is corrected as *lul*. However, *ka* may be considered the correct case particle, as *ka*-marked NP in (5a) may receive nominative Case within the embedded clause as the subject of the embedded clause. In (5b), *i* is corrected as *ul* but there is not enough context to judge the appropriateness of the case morphology. In (5c), *i* is corrected as *lul*. But *lul* becomes the correct case particle only if the predicate is also corrected. When the predicate in (5c) *chossupnita* is corrected to *cohahapnita*, *lul* becomes the appropriate case marking, as shown in (6a). However, with the original predicate *cohssupnita*, *i* is the correct case particle, as shown in (6b). In short, *i* is the correct case particle based on the original predicate.

- (6) a. *apeci-nun yetongsayng-ul/*i te cohahapnita.*
 father-TOP sister-ACC/NOM more like
 ‘(My) Father likes (my) sister more.’
- b. *apeci-nun yetongsayng-i/*ul te cohssupnita.*
 father-TOP sister-NOM/ACC more like
 ‘(My) Father likes (my) sister more.’

3.2. The pattern

We categorized the replacement errors of *i/ka* (henceforth, replacement errors) into replacement errors with covert subjects, as in (7), replacement errors with special particles, as in (8), and replacement errors with the nominative particle, as in (9), based on i) whether the subject of the sentence is covert or overt, ii) whether the case particle on the overt subject is the nominative case particle *i/ka* or some other special particle.

(7) Replacement errors with covert subjects

- a. * \emptyset *palpyo-ka machi-keyss-supnita*
 presentation-NOM will end
 ‘(We) will end the presentation.’
- b. * \emptyset *achimey ilenase hayspich-i pol swu issta.*
 Morning-at wake up-because sun ray-NOM see .can
 ‘As (I) woke up in the morning, (I) was able to see the sun ray.’

(8) Replacement errors with special particles

- a. **ce-nun chinkwu-ka mannasssupnita.*
 I-TOP friend-NOM met
 ‘I met a friend.’
- b. **tayhakkyo-to towum-i cwuko.*
 College-also help-NOM give
 ‘(My) college also helped (me)’

(9) Replacement errors with the nominative particle

- a. **cey-ka mence maum-i ophunhako.*
 I-NOM first mind(ACC)-NOM open
 ‘I opened up first’
- b. *i salam-i caki cangcem-i molunun salamipnita.*
 this person-NOM self strength-NOM not.know person.is
 ‘This person is a person that does not know his/her own strengths’

Among the 1845 items that were identified as replacement errors, we found that 1407 errors (76.26%) occurred when the subject was not pronounced, and 293 errors (15.88%) occurred when the subject was overt and the subject particle was not the canonical nominative case particle *i/ka*.¹ Only 7.32% of the replacement errors occurred when the subject argument was present and was marked by the nominative case particle. In short, over 90% of the replacement errors were produced when the subject morphology was not canonical. What this suggests is that subject morphology has an effect on the occurrence of the replacement errors.

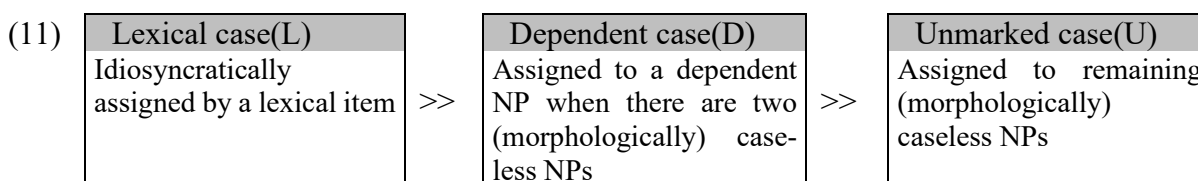
(10)

covert subject	overt subject			Total
	special particles	<i>i/ka</i>	No particle	
1407	293	135	10	1845
76.26%	15.88%	7.32%	0.54%	100%

4. The claim

4.1. The dependent case model

The effect of subject morphology on the occurrence of the replacement error can be explained if learners utilize the dependent case model as their case marking strategy. Marantz (1991) introduces a model of morphological case assignment that is independent of structural Case; the dependent case model.² According to the dependent case model, case (morphology) is assigned in three steps.





¹ 10 replacement with no particles on the overt subject, as in (i), were not included in the 293 replacement errors with special particles, as it was unclear which particle was omitted.

- (i) a. **wuli-ø pyenhwa-ka hwanyenghamyen.*
 We(NOM) change-NOM welcome-if
 ‘If we welcome change’
- b. **ce-ø cikum com casinkam-i ilhepelyesseyo.*
 I(NOM) now a little confidence-NOM lost
 ‘I lost confidence in me right now.’

² There is controversy on whether dependent case model can replace traditional abstract Case assignment s and Case Filter or not (cf. Baker & Vinokurova 2010, Levin 2015). However, in this paper, we will only utilize dependent case model as a case morphology assignment strategy independent of abstract Case assignment.

First, lexical/oblique case is determined idiosyncratically by a lexical item. Second, when two caseless NP arguments are in a C-command relation, dependent case is assigned. Whether the lower or the higher NP receive dependent case is parameterized among languages, as in (12a). Finally, unmarked case is assigned to any remaining caseless NPs.

(12) Dependent case assignment

- a. $\text{NP} \dots \text{NP}_{\text{ACC}}$ (Nominative-Accusative languages)

- b. $\text{NP}_{\text{ERG}} \dots \text{NP}$ (Ergative-Absolutive languages)


As dependent case assignment requires two caseless NPs within the same case domain, the dependent case cannot appear in intransitive constructions. Therefore, when the lower NP is assigned the dependent case, transitive subjects will bear the same case morphology as the intransitive subject. In short, in a Nominative-Accusative language, the Accusative case is the dependent case and the Nominative case is the unmarked case.³

4.2. The application of the dependent case model in Korean

The distribution of the case particles in Korean is generally in line with the dependent case model. In a canonical intransitive structure, as in (13a), the lexical case is not assigned at the first stage, and the dependent case is also not assigned at the second stage as there is only one argument NP. At the final stage, the sole argument is the unmarked (Nominative) case. In a canonical transitive construction, as in (13b), no lexical case is assigned at the first stage. In the second stage, since there are two caseless NPs, the c-commanded NP (the object) is assigned the dependent (Accusative) case. At the final stage, the remaining caseless argument NP is assigned the unmarked (Nominative) case. In a ditransitive construction, as in (13c), the goal argument is assigned the lexical/oblique (Dative) case at the first stage. Since there are still two caseless NPs remaining at the second stage, the c-commanded argument of the remaining arguments is assigned the dependent (Accusative) case. At the final stage, the remaining caseless NP (the subject) is assigned the unmarked (Nominative) case.

- (13) a. *Mary-ka wassta*
 M.-NOM (U) came
 ‘Mary came.’
- b. *Mary-ka sakwa-lul mekessta*
 M.-NOM (U) J.-ACC (D) ate
 ‘Mary ate an apple.’
- c. *John-i Mary-hanthey chayk-ul cwuesse*
 J.-NOM (U) M.-DAT (L) book-ACC (D) gave
 ‘John gave Mary the book.’

³ We will not get into the specifics of the dependent case model. For detailed discussion on how dependent case model works, see Marantz 1991, Baker & Vinokurova 2010, Levin 2015, 2017).

4.3. Replacement errors

Since the dependent case model correctly predicts the distribution of Korean case particles, no errors will occur if second language Korean learners are able to apply the dependent case model correctly. I argue that the replacement errors occur;

- i) when learners acquire an incorrect version of the dependent case model (i.e. not include covert arguments in their case marking strategy), or
- ii) when learners acquire the correct version of dependent case model but their application is erroneous (i.e. consider semantic particles as case particles).

5. Replacement errors with covert subjects

In Korean, phonologically covert subjects are treated like a normal visible NP in the dependent case model. Therefore, in both (14a) and (14b), two caseless NPs are considered to be present at the dependent case assignment stage and the lower NP (the object) is assigned the dependent (Accusative) case regardless of the subject being covert.

- (14) a. \emptyset *palpyo-lul/*ka* *machi-keyss-supnita*
 (I) presentation-ACC / NOM will end
 ‘(I) will end the presentation.’
- b. \emptyset *achimey* *ilenase* *hayspich-ul/*i* *pol swu issta.*
 (I) Morning-at wake up-because sun ray-ACC/NOM see .can
 ‘As (I) woke up in the morning, (I) was able to see the sun ray.’

The replacement errors with covert subjects will occur if covert NPs are visible for the dependent case assignment. If covert NPs are invisible to the dependent case assignment, the sentences in (14) will be treated like an intransitive sentence. Since morphological case is assigned independent of abstract Case or argument structure, that the sole argument is an internal argument at the Accusative Case position is not considered in the morphological case assignment. If so, since the thematic object is the only caseless NP in (14), it would naturally be assigned the unmarked (Nominative) case, and not the dependent (Accusative case). And the replacement error in (7), repeated below, will result.

- (7) Replacement errors with covert subjects
- a. * \emptyset *palpyo-ka* *machi-keyss-supnita*
 presentation-NOM will end
 ‘(We) will end the presentation.’
- b. * \emptyset *achimey* *ilenase* *hayspich-i* *pol swu issta.*
 Morning-at wake up-because sun ray-NOM see.can
 ‘As (I) woke up in the morning, (I) was able to see the sun ray.’

Assuming that the dependent case model is a universal case marking strategy readily available to learners whose L1 possesses a case-marking system, the incorrect development of the dependent case model will be more likely to appear with learners whose L1 lacks a case-marking system. If so, the learners whose L1 lacks visible case morphology will be expected

to make replacement errors with covert subjects more frequently than learners whose L1 possess visible case morphology. And the expectation is met.

We examined replacement errors in the beginner level learners whose first language is Chinese, English, Japanese, and Vietnamese.⁴ We found that replacement errors produced by learners whose L1 possess visible case morphology (Japanese) is less likely to involve covert subjects. While less than 50% replacement errors produced by Japanese L1 learners were replacement errors with covert subjects, the percentage of replacement errors with covert subjects produced by learners whose L1 do not possess case morphology was close to or above 70% of the total replacement errors.⁵

(15)

L1	Case morphology	RE with covert subjects
Chinese	No	64.44% (87/135)
English	No	70.9% (93/131)
Vietnamese	No	73.91% (34/46)
Japanese	Yes	49.66% (74/149)

6. Replacement errors with special particles

There are two types of Nominal particles in Korean; case particles that mark case and special particles that add meaning to their hosts. Among the 438 replacement errors with overt subjects, 293 of the errors are replacement errors with special particles. The special particles attached to the subject was either *to* or *un/nun*.

(16)

Special particles	Percentage(count)
<i>to</i>	6.48% (19)
<i>Un/nun</i>	93.52% (274 ⁶)

A characteristic of these two special particles is that they cannot be stacked with case particles. While the sentence is fine when only the special particle is attached to an NP, as in (17b) and (18b), sentences become ungrammatical if both the case particle and the special particle is attached to the host NP, as in (17a) and (18a). In sum, sentences are perfect with only the

⁴ The four languages were chosen as they were the four most L1s in the corpus.

⁵ While there is a clear difference in the behavior between L1 with visible case morphology (Japanese) and L1 without case morphology (Chinese, English, and Vietnamese), still almost 50% of replacement errors produced by beginner level Japanese L1 learners involve covert subjects. If the exact same version of the dependent case model is utilized in languages that possess visible case marking, it would be hard to explain why so many replacement errors by Japanese L1 learners involve covert subjects. However, we have already seen in (12) that the dependent case model is parameterized among languages. While Japanese, like Korean, treat covert subject no differently from overt subjects, the possibility of parametrization may have affected the high percentage of replacement errors involving covert subjects.

⁶ Among the 274 tokens of *un/nun*, two tokens appear as stacked particles. One is *kkeyse-nun*, with the honorific nominative case particle, and the other is *hantey-nun*, with the dative case particle.

special particles *nun* and *to* attached to the host NPs, and special particles *nun* and *to* never occur with any case particles.

- (17) a. **ce-ka-nun/nun-ka* *chinkwu-lul* *mannasssupnita.*
 I-NOM-TOP/TOP-NOM friend-ACC met
 b. *ce-nun* *chinkwu-lul* *mannasssupnita.*
 I-TOP friend-ACC met
 ‘As for me, I met a friend’
- (18) a. **ce-ka-to/to-ka* *chinkwu-lul* *mannasssupnita.*
 I-NOM-Also/Also-NOM friend-ACC met
 b. *ce-to* *chinkwu-lul* *mannasssupnita.*
 I-Also friend-ACC met
 ‘I also met a friend’

If learners interpret the distributional behavior of *un/nun* and *to* as an indication that they are both idiosyncratically assigned lexical case particles, the thematic object of a transitive sentence will be assigned the unmarked Nominative case when the subject is marked by either *un/nun* or *to*, based on the dependent case model. First, lexical case *un/nun* and *to* will be assigned to the subject argument. And at the second stage, dependent (Accusative case) will not be assigned to the thematic subject as there is only one caseless NP. At the final stage, the unmarked (Nominative) case will be assigned to the remaining caseless NP (the object). And the replacement error in (8), repeated below, will result.

- (8) Replacement errors with special particles
- a. **ce-nun* *chinkwu-ka* *mannasssupnita.*
 I-TOP friend-NOM met
 ‘I met a friend.’
- b. **tayhakkyo-to* *towum-i* *cwuko.*
 College-also help-NOM give
 ‘(My) college also helped (me)’

Learners case marking strategy may be fortified by sentences like (19). While the exact structure of (19) is debated, the consensus is that the structure is much more complex than a canonical transitive sentence. However, sentences like (19) is one of the earliest structure learners encounter in class, and superficially, the structure of (19) resembles a canonical transitive sentence. Thus, if learners identify sentences like (19) as canonical transitive, it may fortify their analysis of *un/nun* as lexical case.

- (19) *Tammy-nun* *Ton-i* *manhta.*
 T.-TOP money-NOM a lot
 ‘Tammy has a lot of money.’

If our analysis is on the right track, the replacement error with special particles in (8) is not caused by a defect in the dependent case model. Even if the learners have acquired the correct version of the dependent case model, the error will arise if the learners have mis-analyze the semantic particles *un/nun* and *to* as markers of Lexical case.

If so, we would expect that the distribution of replacement errors with special particles will be different from that of the replacement errors with covert subjects. While replacement errors with covert subjects are expected to increase in L1 without case marking, that should not be the case with replacement errors with special particles. Moreover, we would expect the percentage of replacement errors with special particles to rise with learners accustomed to the dependent case model (learners whose L1 possess visible case morphology), as they would be less likely to make errors involving erroneous dependent case model. As expected, in beginner level learners, we found that replacement errors produced by learners whose L1 possess visible case morphology (Japanese) is more likely to be involved with special particles. While almost 45% of the replacement errors produced by Japanese L1 learners were replacement errors with special particles, only 25% of replacement errors produced by learners whose L1 do not possess case morphology were replacement errors with special particles.

(20)

L1	Case morphology	RE with covert subjects	RE with special particles
Chinese	No	64.44% (87/135)	25.19% (34/135)
English	No	70.9% (93/131)	25.19% (33/131)
Vietnamese	No	73.91% (34/46)	26.09% (12/46)
Japanese	Yes	49.66% (74/149)	44.97% (67/149)

7. Conclusion

That case morphology does not always align with abstract Case licensing has been observed by many previous literature (Zaenen et al. 1985, Yip et al. 1987, Schütze 2001, Legate 2008, Levin 2015, among others). However, in many languages, like Korean, morphological case generally aligns with abstract Case licensing. Therefore, it was generally assumed that in languages like Korean, case morphology is a reflection of the abstract Case.

In this paper, I have argued that the distributional pattern of replacement errors produced by second language learners of Korean can be explained if case morphology in Korean is assigned independent of abstract Case assignment via the dependent case model.

Since the morphological case generally aligns with abstract Case licensing in Korean, in general, the distribution of the case particles predicted by the dependent case model is not any different from how case particles would be assigned as a reflection of abstract Case. However, the prediction differs in how replacement errors are distributed. If case morphology is a reflection of the abstract case, replacement errors will likely be associated with errors in argument structure analysis. However, if case morphology is assigned independent of abstract Case via the dependent case model, the replacement errors will be more likely to be associated with the morphology of the preceding argumental NPs. And the distributional pattern of replacement errors by second language learners of Korean suggests that Learners are more sensitive to the morphology than argument structure when deciding on which case particle to choose. In other words, when a learner erroneously marks an internal argument with a nominative case particle, it is very likely that the subject argument is covert, but not so likely that the predicate is confusing (enough to cause learners to mis-analyzed the internal argument as the external argument). The sensitivity to the subject morphology combined with the insensitivity to the argument structure in replacement errors suggests that second language

learners of Korean assign case morphology via the dependent case model, independent of the abstract Case.

The pattern of replacement error by the second language learners of Korean may have bigger consequences on the relationship between case morphology and abstract Case. That second language learners systematically assign the morphological nominative case to an internal argument which is assigned the abstract Accusative Case (when a morphological cue is present) suggests that learners do not take for granted that case morphology should align with abstract Case assignment. This would be unexpected if the so-called structural case morphology is a reflection of the abstract Case assignment universally.

8. References

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