Possessor Agreement as Theta Feature Sharing

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Sungeun Cho and Wonbin Lee. 2003. Possessor Agreement as Theta Feature Sharing. *Language and Information 7.2*, 163–178. Korean displays an interesting construction (so-called possessor agreement construction), where a possessor nominal and its possessum nominal are marked with the same case as shown in the example *Mary-ka John-ul tali-lul cha-ss-ta* 'Mary kicked John's leg' More interestingly, not all possessors in possessive construction are marked the same case with its possessum as shown in the ungrammatical sentence **Mary-ka John-ul cha-lul cha-ss-ta* 'Mary kicked John's car'. Hence, a simple but non-trivial question arises: In what situation are both possessors and possessums marked with the same case? In this paper, we advance three claims: (i) Possessor agreement appears in the situation where entailment is satisfied as follows: If Mary kicked John's leg, it entails that Mary kicked John, (ii) entailment in possessor agreement results from theta-feature sharing; specifically, the whole DP and the possessor DP share the same theta role, and (iii) Possessor nominals are marked with accusative (or nominative) case when they are assigned internal theta role from the predicate directly. (**Sogang University**)

Key words: possessor agreement, entailment, theta feature sharing

1. Introduction

Korean has an interesting construction (i.e., so-called possessor agreement construction), where the possessor nominal and the possessum nominal are marked with the same case, as shown in (1).

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(1) a. Mary-ka   **John-ul   tali-lul** cha-ess-ta
       Mary-Nom **John-Acc leg-Acc** kick-Past-Dc
       'Mary kicked John's leg.'

    b. **John-i   tali-ka**   cha-i-ess-ta
       John-Nom leg-Nom kick-Pass-Past-Dc
       'John's leg was kicked.'

In (1a), although the verb *cha* 'kick' is a mono-transitive verb, both the possessor *John* and the possessum *tali* 'leg' are marked with accusative case. In (1b), both *John* and *tali* are marked with nominative case.[1]

More interestingly, case agreement between the possessor and the possessum is not always observed. As shown in (2a), accusative case marking on the possessor *John* makes the sentence ill-formed. Instead, the possessor is marked with genitive case in both the active and the passive as shown in (2b, c).

(2) a. *Mary-ka   John-ul   cha-lul cha-ess-ta
       Mary-Nom John-Acc car-Acc kick-Past-Dc
       'Mary kicked John's car.'

    b. Mary-ka   John-uy   cha-lul cha-ess-ta
       Mary-Nom John-Gen car-Acc kick-Past-Dc
       'Mary kicked John's car.'

    c. John-uy   cha-ka   cha-i-ess-ta
       John-Gen car-Nom kick-Pass-Past-Dc
       'John's car was kicked.'

This phenomenon raises a crucial question. In what situation are both possessor and possessum marked with the same case?

This paper is organized as follows: Section 2 provides critical review of the previous approaches to possessor agreement, pointing out some conceptual and empirical problems.[2] Section 3 proposes that a case-agreeing possessor share internal theta-role with its possessum.

2. Inalienable Possession Relation and Affected Objects

It has been noticed that case agreement between a possessor and its possessum requires inalienable possession relation. Hence, these constructions have often been called *inalienable possession constructions* in the previous literature (Maling & Kim 1992, Kim 1989, 1990, Yoon 1989, and others). Consider (1a) with (2a) again.

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[1] We distinguish nominative possessor agreement constructions from other types of multiple nominative constructions. We will discuss the reason in Section 3.2.2.

[2] Discussion in section 2 is mainly based on the previous research made by the first author of this paper (Cho 2000; Cho 2003).

(1a) Mary-ka   John-ul   tali-lul cha-ess-ta
     Mary-Nom John-Acc leg-Acc kick-Past-Dc
     'Mary kicked John's leg.'

(2a) *Mary-ka   John-ul   cha-lul cha-ess-ta
     Mary-Nom John-Acc car-Acc kick-Past-Dc
     'Mary kicked John's car.'

The inalienable possession relation requirement accounts for the reason why case agreement between the possessor and its possessum is not allowed in (2a). The possession relation between *John* and his leg is of the inalienable type whereas the one between *John* and his car is of the alienable type. Only the inalienable possession relation makes the case agreement between a possessor and its possessum possible.

Although inalienability captures the grammatical contrast between (1a) and (2a), it does not seem to be a conceptually well-defined notion. According to Heine (1997: 10), items that cannot be separated from their owners are inalienable. Otherwise, they are alienable. More specifically, Chappell and McGregor (1996) propose that the items belonging to any of the following conceptual domains are likely to be treated as inalienable.

(3) a. close biological or social bond between two people (e.g., kinship)

     b. integral relationship (e.g., body-parts and other parts wholes, like branch, handle, etc.)

     c. inherent relations like top, bottom, interior, etc.

     d. essential for one livelihood or survival

However, the items which are regarded as inalienable possessum are different within a given language or across languages. As Chappell and McGregor (1996) point out, the concept, inalienability, is still unclear because of the culture-specific nature of the phenomenon.

Moreover, the analysis solely based on the inalienable possession relation encounters some problematic data. Compare (4a) with (4b).

(4) a. Mary-ka   John-ul   elkwul-ul **ttayly-ess-ta**
        Mary-Nom John-Acc face-Acc **hit-Past-Dc**
        'Mary hit John's face.'

     b. *Mary-ka   John-ul   elkwul-ul **salanghay-ss-ta**
        Mary-Nom John-Acc face-Acc **love-Past-Dc**
        'Mary loved John's face.'

Although the possessor and the possessum stand in the relation of inalienable possession in both examples, possessor agreement is allowed only in (4a). It seems that inalienable possession relation is not the only conditioning factor for determining possessor agreement.

Based on such grammatical contrast as in (4a) and (4b), Yoon (1989) proposes that verbs in the possessor agreement construction should take affected objects. According to him, the verb *ttayly* 'hit' which has an affected object can allow case agreement, whereas the verb *salangha* 'love', which does not have an affected object cannot.

Yoon's (1989) approach is worthy to be considered as an attempt to focus on the property of verbs in the possessor agreement constructions. Nevertheless, his approach is faced with some empirical problems. First, compare (5a) with (5b).

(5) a. Vampire-ka   John-ul   phi-lul   **ppal-ass-ta**
       Vampire-Nom John-Acc blood-Acc **suck-Past-Dc**
       'A vampire sucked John's blood.'

    b. *Vampire-ka   John-ul   phi-lul   **masi-ess-ta**
       Vampire-Nom John-Acc blood-Acc **drink-Past-Dc**
       'A vampire drank John's blood.'   (Cho 2000, 2003)

The verbs, *ppal* 'suck' and *masi* 'drink', take affected objects. Thus, Yoon's approach allows the possessor agreement in both (5a) and (5b), contrary to fact. As we can see in (5), the possessor agreement is only allowed in (5a) but not in (5b). Hence, Yoon's approach does not provide an appropriate explanation for the possessor agreement.

Furthermore, possessor agreement is also observed in the constructions involving the verbs which do not take affected objects. As shown in (6), possessor agreement is allowed in the domain of the verbs such as *po* 'see', *kuli* 'draw', and *sacinccik* 'take a picture of' (Choe 1986, Lee 1992).

(6) a. Mary-ka John-ul elkwul-ul **po-ass-ta**
       M.-Nom J.-Acc face-Acc **see-Past-Dc**
       'Mary saw John's face.'

    b. Mary-ka John-ul elkwul-ul **kuli-ess-ta**
       M.-Nom J.-Acc face-Acc **draw-Past-Dc**
       'Mary drew John's face.'

    c. Mary-ka John-ul elkwul-ul **sacin   ccik-ess-ta**
       M.-Nom J.-Acc face-Acc **picture take-Past-Dc**
       'Mary took a picture of John's face.'

The object in (6) is apparently not affected by the action of the verb. *John* and his face are not affected by the actions of seeing, drawing and taking a picture, respectively. Nonetheless, the possessor and its possessum are marked with the same case. Hence, the notion of affectedness is not considered to be a proper measure to determine the factor of possessor agreement.

3. Entailment and Theta Feature Sharing

In the section above, we have shown that the previous analyses based on the inalienable possession relation or the notion of affectedness are not appropriate on

empirical and conceptual grounds. To extract an appropriate conditioning factor determining (or licensing) the possessor agreement, we slightly modify Choe's (1986) suggestion and propose that entailment requirement must be satisfied, in order for possessor agreement to be licensed.

This section is organized as follows. Section 3.1 suggests that entailment requirement is the right generalization to describe the environment where possessor agreement is allowed and shows how effectively the entailment requirement accounts for the data already discussed in section 2. Section 3.2 discusses further examples in English and other multiple nominative constructions in Korean. Section 3.3 proposes that the surface observation related to entailment results from theta-feature sharing between case-agreeing nominals. Section 3.4 compares our theta-feature sharing analysis with the analysis based on the relational succession law within the framework of Relation Grammar.

3.1 Entailment

Choe (1986, fn.4) briefly states that in order to license multiple accusatives, the possessor NPs with accusative case must bear the same relation with V as the possessum. Following this line of reasoning, Cho (2000, 2003) suggest that when the entailment pattern in (7) is satisfied, possessor agreement is licensed:

(7) A Conditioning Factor in Possessor Agreement
    V (Possessor Possessum) → V (Possessor)

To illustrate our proposal concretely, reconsider (1) and (2a).

(1) a. Mary-ka   John-ul   tali-lul cha-ess-ta
       Mary-Nom John-Acc leg-Acc kick-Past-Dc
       'Mary kicked John's leg.'

    b. John-i   tali-ka   cha-i-ess-ta
       John-Nom leg-Nom kick-Pass-Past-Dc
       'John's leg was kicked.'

(2a) *Mary-ka   John-ul   cha-lul cha-ess-ta
      Mary-Nom John-Acc car-Acc kick-Past-Dc
      'Mary kicked John's car.'

(1) satisfies the entailment whereas (2a) does not.

(8) a. kick (john's leg) → kick (john)

    b. kick (john's car) ↛ kick (john)

If Mary kicked John's leg, then Mary kicked John. However, if Mary kicked John's car, it does not follow that Mary kicked John. The entailment pattern in (7) accounts for the contrast in (4), as well.

(4) a. Mary-ka   John-ul   elkwul-ul **ttayly-ess-ta**
       Mary-Nom John-Acc face-Acc **hit-Past-Dc**
       'Mary hit John's face.'

b. *Mary-ka   John-ul   elkwul-ul **salanghay-ss-ta**
Mary-Nom John-Acc face-Acc **love-Past-Dc**
'Mary loved John's face.'

If Mary hit John's face, then Mary hit John. If Mary loves John's face, it is not the case that Mary loves John.

(9) a. hit (john's face) → hit (john)

b. love (john's face) ↛ love (john)

Now, reconsider (5).

(5) a. Vampire-ka   John-ul   phi-lul   **ppal-ass-ta**
Vampire-Nom John-Acc blood-Acc **suck-Past-Dc**
'A vampire sucked John's blood.'

b. *Vampire-ka   John-ul   phi-lul   **masi-ess-ta**
Vampire-Nom John-Acc blood-Acc **drink-Past-Dc**
'A vampire drank John's blood.'

If a vampire sucked John's blood, a vampire sucked John. In contrast, if a vampire drank John's blood, it does not follow that a vampire drank John.

(10) a. suck (john's blood) → suck (john)

b. drink (john's blood) ↛ drink (john)

Finally, consider some examples in the domain of verbs which do not take an affected object, as shown in (6).

(6) a. Mary-ka John-ul elkwul-ul **po-ass-ta**
M.-Nom J.-Acc face-Acc **see-Past-Dc**
'Mary saw John's face.'

b. Mary-ka John-ul elkwul-ul **kuli-ess-ta**
M.-Nom J.-Acc face-Acc **draw-Past-Dc**
'Mary drew John's face.'

c. Mary-ka John-ul elkwul-ul **sacin   ccik-ess-ta**
M.-Nom J.-Acc face-Acc **picture take-Past-Dc**
'Mary took a picture of John's face.'

If Mary saw John's face, then Mary saw John. If Mary drew John's face, Mary drew John. If Mary took a picture of John's face, Mary took a picture of John.

(11) a. see (john's face) → see (john)

b. draw (john's face) → draw (john)

    c. take-a-picture-of (john's face) → take-a-picture-of (john)

So far we have shown how effectively the entailment requirement captures the grammatical contrast related to the possessor agreement.[3] In the next section, we will discuss further examples in English and Korean to support the entailment-based analysis.

3.2 Further Examples in English and Korean.
3.2.1 Possessor Raising Constructions in English.
The entailment relation advanced here accounts for English cases like (12-14). With certain verbs, the availability of the two possessive expressions, a possessor and its possessed body part, gives rise to the following alternation.[4] They may be expressed as a single

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[3] There is an example which the entailment-based analysis does not seem to account for.

  (i) Mary-ka   John-ul   melikhalak-lul kkakk-ass-ta
      Mary-Nom John-Acc hair-Acc   cut-Past-Dc
      'Mary cut John's hair'.

In (i) the possessor *John* and its possessum are marked with the same case. Let us check whether entailment is satisfied.

  (ii) a ??cut (john's hair) → cut (john)

If Mary cut John's hair, it is not clear that Mary cut John.
    Interestingly, as Prof. Byong-Rae Ryu (p.c.) points out, the following example (iii) seems to satisfy entailment, as shown in (iv).

  (iii) Mary-ka   yang-ul   thel-ul   kkakk-ass-ta
       Mary-Nom sheep-Acc wool-Acc shear-Past-Dc
       'Mary sheared a sheep's wool'.

  (iv) shear (sheep's wool) → shear (sheep)

Since the verb, *kkak* denotes considerably wide range of action, there is variability as shown in (ii) and (iv). According to Richard Larson (p.c.), this problem is related to blocking effects in verbs which cover wide range of action. We leave this issue for future research.
[4] According to Levin (1993: 71), the following verbs are involved in this alternation.

  (i) Touch verbs: ?caress, graze, kiss, lick, nudge, pat, peck (= kiss), pinch, prod, sting, ?stroke, tickle, touch

  (ii)   Verbs of Contact by impact:

      a. Hit verbs: bang, bash, batter, beat, bump, butt, dash, drum, hammer, hit, kick,. knock, lash, pound, rap, slap, smack (where no effect implicated), strike, tamp, tap, thump, thwack, whack

      b. Swat verbs: bite, claw, peck, punch (person), scratch, shoot (gun), slung, stab, swat, swipe

      c. Spank verbs (some): ?bonk, ?cane, clobber, ?club, ?conk, flog, knife, pummel, sock, spank, ?strap, thrash, wallop, whip, whisk

  (iii) Poke verbs: dig, jab, pierce, poke, prick, stick

noun phrase bearing direct object relation to the verb. In other words, the body part is the head of the noun phrase and the possessor is expressed as a genitive possessor within the noun phrase as shown in (12a), (13a), and (14a). Alternatively, they may be expressed as two distinct constituents: the possessor as direct object and the body part in a prepositional phrase headed by a locative preposition. In this variant, the possessor has "ascended" out of the body part NP, which is reflected in the name of the construction: the possessor raising (ascension) construction (12b, 13b, 14b) (Levin 1993; Tenny 1994).

(12) a. Mary beat John's head.

  b. Mary beat John on the head.

(13) a. Mary kissed his cheek.

  b. Mary kissed him on the cheek.

(14) a. Mary touched his forehead.

  b. Mary touched him on the forehead.

Interestingly, the alternation is not always found. Even though the same or similar verbs are used, possessor raising is not possible in (15b), (16b), and (17b).

(15) a. Mary kicked his car.

  b. #Mary kicked him in the car.

(16) a. Mary kissed his ring

  b. #Mary kissed him on the ring.

(17) a. Mary touched his paper

  b. #Mary touched him on the paper.

Like Korean possessor agreement constructions, English possessor raising constructions appear to obey the entailment requirement.[5] For example, if Mary kissed him on the cheek, it follows that Mary kissed him. By contrast, if Mary kissed his ring, it does not follow that Mary kissed him.

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[5] There are some examples in English where entailment plays an important role in accounting for grammatical contrast, even though it is not related to possessor raising (Cattell 1976).

  (i) I wrote a book about that composer.
    → I wrote about that composer.

The former sentence in (i) entails the latter sentence. If I wrote a book about that composer, it follows that I wrote about that composer. In this case, the complement of the preposition, *that composer* can undergo *wh*-movement as shown in (ii).

  (ii) Which composer did you write a book about?

Now, let us consider an example where entailment is not satisfied, as shown in (iii).

  (iii) I burnt a book about that composer.
    ↛ I burnt that composer.

3.2.2 Other Multiple Nominative Constructions in Korean. Korean has a variety of multiple nominative constructions. For example, consider (18).

(18) a. mwunmyeng kwukka-ka   namca-ka swumeyng-i kil-ta
        developed   country-Nom man-Nom lifespan-Nom long-Dc
        'As for developed countries, the life-span of the men is long.'

    b. John-i   ttal-i   cwuk-ess-ta
       John-Nom daughter-Nom die-Past-Dc
       'As for John, his daughter died.'

A question arises. Does the analysis advanced here extend to the other multiple nominative constructions in Korean? J-Y Yoon (1989) distinguishes focus multiple nominative constructions from possessor agreement constructions (i.e., the inalienable possession constructions). Kim & Kim (2002) propose that two constructions have different structures. Nominative case-marked nominals are base-generated as a constituent in possessor agreement constructions whereas they are not a constituent at any step of derivation in focus multiple constructions. Cho (2000, 2003) also argue that the nominative constructions like (18) should be distinguished from nominative possessor agreement constructions. Unlike possessor agreement constructions, the multiple nominative constructions are sensitive neither to the relation between the two (or more) case-agreeing nominals nor to the relation between the nominals and their verbs. For example, consider (19).

(19) die (john's daughter) ↛ die (john)

If John's daughter died, it does not follow that John died. In addition, although *John* and *ttal* 'daughter' seem to show nominative case agreement, they do not show accusative case agreement. Consider (20).

(20) *Mary-ka **John-ul   ttal-ul**   cha-ess-ta
     Mary-Nom **John-Acc duaghter-Acc** kick-Past-Dc
     'Mary kicked John's daughter.'

The entailment requirement accounts for the ill-formedness of (21).

(21) kick (john's daughter) ↛ kick (john)

If Mary kicked John's daughter, it does not follow that she kicked John. Hence, possessor agreement is not allowed. Entailment is a crucial factor in distinguishing possessor agreement constructions from other kinds of multiple case constructions.


If I burnt a book about that composer, it does not entail that I burnt that composer. In this case, *wh*-movement from prepositional phrase is blocked, as shown in (iv).

(iv) *Which composer did you burn a book about?
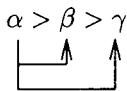
3.3 Theta Feature Sharing

According to the entailment, verbs play important roles in determining case agreement between the possessor nominals and their possessum nominals. This is schematized as in (22).

(22) V $(DP_1\text{-}\alpha \; DP_2\text{-}\alpha)$
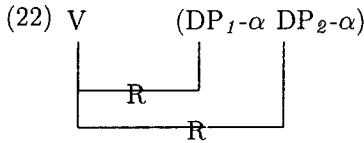
When DP_1 and DP_2 are marked with the same case, the relation between DP_1 and the verb should be the same as the one between DP_2 and the verb. Naturally, the following question is raised: What is R?

We propose that the relation is represented as theta role sharing and that two case-agreeing possessor and possessum are assigned the same theta role from the verb, assuming the following key points: (i) theta-roles are features (Hornstein 1999; Manzini and Rossou 2000; Manzini and Savoia 2002), and (ii) some languages such as Japanese and Korean allow multiple Agree as a single operation (Hiraiwa 2001). Multiple Agree is schematized as in (23).

(23) Multiple Agree as a single simultaneous operation

$\alpha > \beta > \gamma$

Following this line of reasoning, we assume that the theta feature associated with V can be multiply assigned as a single simultaneous operation, as shown in (24).

(24) Multiple Theta Feature Assignment: Theta Feature Sharing

$\alpha > \beta > \gamma$
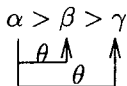
Based on these assumptions, let us look at the structure where the internal theta role is multiply assigned to the possessor nominal and its possessum nominal. As represented in (25), the possessor DP_2 is base-generated in the Spec of possessum NP and raised to the Spec of D in order to satisfy the EPP of D. Then, DP_1 is merged with V. At this point, the internal theta feature on V is simultaneously assigned to DP_1 and DP_2.[6] [7] [8]

(25)
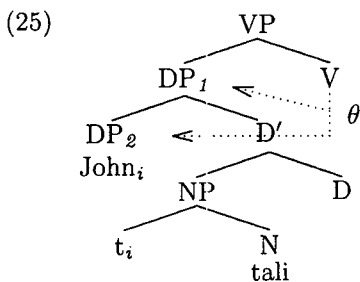
We argue that the theta feature assignment observes locality principle and that nominals which are equidistant from V can share the same theta features from V. How are DP_1 and DP_2 in (26) equidistant from V? Let us first look at Richard's (2002: 497) Shortest Attract formalization as given in (26).

(26) a. A head X must attract a syntactic object α that contains an instance of the feature being attracted, such that there is no β also containing the attracted feature which is closer to X than α

b. α is closer to X than β just in case the lowest node dominating α dominates β, and the reverse is not true.

According to (26), the specifier of X is not taken to be dominated by XP. The specifier of XP and XP itself are dominated by the same lowest node, and are equally close to attracting heads. Following this, we formalize Shortest Assign as (27).

(27) a. A head X must assign a theta role to a syntactic object such that there is no β which is closer to X than α

b. α is closer to X than β just in case the lowest node dominating α dominates β, and the reverse is not true.

According to (27), DP_1 and DP_2 in (25) are equally close to the head V. Hence, multiple θ-Assign can occur in (25).[9]

Now consider the grammatical contrast between (1a) and (2a), again.

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[6] Minimalism makes this analysis viable by removing D-structure as grammatical level. It also requires dispensing with the theta-criterion, which makes it possible to assume that theta roles are features which can be multiply assigned to nominals (cf. Hornstein 1999).

[7] A natural question is how the following example is derived in our theory.

(i) Mary-ka   John-uy   tali-lul cha-ess-ta
    Mary-Nom John-Gen leg-Acc kick-Past-Dc
    'Mary kicked John's leg.'

We assume that the possessor *John* in (i) does not raise to the Spec of D and stays in the Spec of N. Genitive case is assigned to the possessor by D in this position. This explanation is based on the assumption that D has an EPP feature optionally like C. Therefore, the possessor in (i) does not share internal theta role from V with its possessum. All possessors which are assigned internal theta role by V satisfy the entailment pattern but not all possessors which satisfy the entailment pattern are assigned internal theta role from V. Regarding case licensing mechanism, see Lee and Cho (to appear).

[8] Even though Im (1974) and Ryu (1998) do not attempt any kind of formal approach, they notice that case-agreeing nominals in possessor agreement constructions constitute small clause structure and share theta-role from V with each other. Thanks to an anonymous reviewer for providing us with the relevant references.

[9] Following this line of reasoning we can account for the grammatical contrast. as shown in (i).

(i) a. Mary-ka   John-ul   **seykey** tali-lul cha-ess-ta
       Mary-Nom John-Acc **hard**   leg-Acc kick-Past-Dc
       'Mary kicked John's leg hard.'

(1a) Mary-ka **John-ul**   **tali-lul**   cha-ess-ta
     M.-Nom **John-Acc leg-Acc** kick-Past-Dc
     'Mary kicked John's leg.'

(2a) *Mary-ka   **John-ul**   **cha-lul**   cha-ess-ta
     Mary-Nom **John-Acc car-Acc** kick-Past-Dc
     'Mary kicked John's car.'

In (1a), the whole DP *John's leg* and the possessor *John* share the same theta feature assigned from the verb. In this case, if Mary kicked John's leg, it follows that Mary kicked John. By contrast, if the whole DP, *John's car* and the possessor *John* share the same theta feature assigned by the verb, it should be true that Mary kicked John, contrary to fact. In this case, the possessor *John* remains in the Spec of N[10] and are not assigned internal theta-role from V. It seems that possessor agreement is licensed only when the theta feature sharing is possible. When the possessor nominal is raised to the Spec of D, it is assigned the internal theta role from the predicate directly. Only when the possessor is in the position are the possessor and the whole nominals equidistant from v which is accusative case assigner. In this case, multiple case assignment is possible. Thus, case agreement is a reminiscent of theta feature sharing.

3.4 The Relational Succession Law
Theta-feature sharing advanced here reminds readers of the relational succession law within the framework of Relation Grammar in that the possessor shares the same theta-role with the whole DP where the possessor raising occurs. Perlmutter & Postal (1983: 38) propose that *grammatical relation of the ascendee after ascension is always the same as that of its host NP prior to ascension.*

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     b. *Mary-ka   John-uy   **seykey** tali-lul cha-ess-ta
       Mary-Nom John-Gen **hard**   leg-Acc kick-Past-Dc
       'Mary kicked John's leg hard.'

A manner adverb *seykey* can intervene between accusative possessor and its possessum, Given that the adverb adjoins to VP, the accusative possessor *John-ul* in (ia) moves out of VP. We assume that this movement is driven by the EPP feature on v. As an anonymous reviewer points out, this movement seems to violate the left branch condition as shown in (ii).

(ii) *Whose$_i$ did John talk to [$_{DP}$ t$_i$ mother]?

However, the left branch condition does not hold in head-final languages, as Emonds (1979) and Kayne (1994) suggest. Thus, possessor raising out of DP is possible.
   If so, why can the genitive possessor in (ib) not undergo this kind of movement? As we already pointed out, we assume that the genitive possessor *John-uy* stays in the Spec of N. Hence, the possessor in the Spec of N and the whole DP are not equidistant from v. When the genitive possessor undergoes movement, it violates Shortest Attract.

[10] According to Chomsky (2001: 35), EPP-feature is assigned only if it has an effect on the outcome. The raising of the possessor *John* in (2a) to the Spec of DP, however, does not have an effect on the output since it cannot hold the entailment relation between the possessor DP and the whole DP, unlike (1a). Thus, the functional category D does not have an EPP-feature attracting the possessor DP *John* to its specifier position.

(28) The Relational Succession Law (RSL)

An ascendee assumes within the clause into which it ascends the grammatical relation of its host NP (the NP out of which it ascends).

According to (28), if the host functions as object before movement, the moved element from the host functions as object after movement. Perlmutter and Postal show that the RSL is true of all derivations involving Subject and Object Raising, as schematized in (29).[11]

(29)

	GR of ascendee after ascension	GR of host NP before ascension
Subject Raising into subject position	Subject	Subject
Object Raising	Subject	Subject
Subject Raising into object position	Direct Object	Direct Object

As shown in (29), the grammatical relation of the host before movement is the same as that of the moved element after movement.

Perlmutter and Postal (1983) also show that if the RSL is obeyed, possessors can be out of the host NPs, mentioning the following Malagasy data (Keenan 1972).

(30) a. Nantsoin-d Rakoto ny anaran' ny olona
        called   Rakoto the names-of the people
        'The names of the people were called by Rakoto.'

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[11] The examples in the operations mentioned in (29) are shown in (i-iii) (Perlmutter and Postal 1983: 33).

(i) a. It turns out that Melvin is innocent.

    b. Melvin turns out to be innocent. (Subject Raising to subject position),

(ii) a. It is easy to please John.

    b. John is easy to please. (Object Raising)

(iii) a. Harry believes (that) Joan is pregnant.

    b. Harry believes Joan to be pregnant. (Subject Raising into object position)

According to Permultter and Postal (1984), (ib, iib, and iiib) are derived from (ia, iia, and iiia), respectively. Let us consider how the relational succession law accounts for the data mentioned above. For example, in (iiia), the host clause *that Joan is pregnant* is embedded in NP and has the following structure.

(iv) [NP [CP that Joan is pregnant]]

The host NP functions as object and the ascendee from the host also functions as object in (iiib). The relational succession law correctly predicts that this kind of ascension is possible.

b. Nantsoin-d Rakoto anarana ny olona
called   Rakoto names   the people
'The people were named-called by Rakoto.' 'called by name.'

In (30), *ny olona* has been moved out of the subject NP *ny anaran' ny olona* and has become the subject of the sentence.

Although Perlmutter and Postal's RSL can explain a broad range of data in many languages, their RSL is faced with an empirical problem in the possessor agreement constructions in Korean, as shown in (31).

(31) a. **John-i**   ecey   **tali-ka**   cha-i-ess-ta
     John-Nom yesterday **leg-Nom** kick-Pass-Past-Dc

b. **John-i**   ecey   **tali-lul** cha-i-ess-ta
   John-Nom yesterday **leg-Acc** kick-Pass-Past-Dc
   'John's leg was kicked yesterday.'

As Perlmutter and Postal (1983: 70) point out, the RSL assumes a very direct relation between grammatical relations and case. Under the assumption, we can account for why the possessor *John* can be out of the possessive in (31a) because the possessor and the possessum are marked with the same case. In contrast, we cannot explain why the possessor *John* can be out of the possessive in (31b) where the possessor and the possessum are marked with the different cases.[12] Under our analysis, the possessor and the whole DP are assigned the same theta role in (31a) and (31b) and the possessor can undergo movement operation in both cases. Hence, the analysis based on theta roles is superior to the analysis based on case.[13]

4. Conclusion

So far we have shown how effectively our analysis based on entailment and theta feature sharing accounts for the possessor agreement constructions in Korean and the related constructions in English. When the whole DP and the possessor share the same theta feature, entailment relation occurs. Possessor nominals are assigned accusative (or nominative) case when they are assigned the internal theta role from the predicate directly. In this respect case agreement is a reminiscent of theta feature sharing.

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[12] We assume that accusative case is assigned to the whole DP $[_{DP}$ t_i tali], which is realized after the possessum nominal *tali* in (31b). We don't discuss case licensing mechanism in possessor agreement constructions in this paper because it is beyond the scope of this paper. Regarding this topic, see Lee and Cho (to appear).

[13] According to Chun (1984: 34), the possessor can only advance to subject of Passive. Possessor becomes an object as a result of Ascension and is eligible for Passive advancement. By contrast, the possessum *tali* 'leg' bears chomeur relation which is ineligible for Passive advancement. However, Chun's (1984) approach does not provide an appropriate explanation for the grammaticality of (31a).

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