

# The Argument Structure of Relational Nouns and Inalienable Possessor Constructions in Korean\*

Jeong-Me Yoon

This paper deals with the argument structure of some nouns which are called “relational nouns” or “inalienable possession nouns” in the literature. The prototypical instances of these nouns are kinship nouns such as *father*, *sister*, bodypart nouns such as *hand*, *face*, and part-whole nouns such as *inside*, *bottom*. In this paper, I examine various syntactic and semantic properties of constructions where relational nouns such as *son* ‘hand’ and *emeni* ‘mother’ appear in Korean and show that the hypothesis that relational nouns possess a-structure is crucial to explaining them. Specifically, I examine the properties of two types of Inalienable Possessor Constructions in Korean, i.e., the Internal Inalienable Possessor construction where the argument of a relational noun is realized as a prenominal genitive possessor to the relational noun and the External Inalienable Possessor construction, also known as the Multiple Object Construction, where the argument of a relational noun is realized as an additional object external to the projection of the relational noun.

## 1. Introduction

Grimshaw (1990) argues that the ability of a noun to take a syntactic argument is tied to whether it has an event (Ev) argument, which complex event nouns like *destruction* or *examination* have, but result nouns like *book* or *horse* lack. However, it is well-known that some nouns which should be result nouns according to Grimshaw, since they lack the [Ev] argument, do possess a-structure. These are the so-called “relational nouns” or “inalienable possession nouns”, which

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have been argued to have a-structure in the literature (Tellier 1988; Vergnaud & Zubizarreta 1992; Barker 1991, 1996). The prototypical instances of relational nouns are kinship nouns such as *father*, *sister*, bodypart nouns such as *hand*, *face*, and part-whole nouns such as *inside*, *bottom*.

In this paper, I will examine various syntactic and semantic properties of constructions where relational nouns like *son* 'hand' and *emeni* 'mother' appear in Korean and show that the hypothesis that relational nouns possess a-structure is crucial to explaining them. Specifically, I will examine the properties of two types of Inalienable Possessor Constructions in Korean, which I will call the Internal Inalienable Possessor Construction and the External Inalienable Possessor construction, following the terminological distinctions proposed in Vergnaud and Zubizarreta (1992). In the Internal Inalienable Possessor construction, the inalienable possessor is realized as a prenominal genitive possessor to the relational noun ((1a) below) while in the External Inalienable Possessor construction, the inalienable possessor of a relational noun is realized as an additional object external to the projection of the relational noun (1b). Since more than one object can occur in External Inalienable Possessor Constructions, they are also known as Multiple Object Constructions in Korean.<sup>2</sup>

- (1) a. Chelswu-ka Yenghi-uy meli-ul ttayli-ess-ta.  
       C-NOM    Y-GEN    head-ACC hit-PST-DECL  
       'Chelswu hit Yenghi's head.'
- b. Chelswu-ka Yenghi-lul meli-lul ttayli-ess-ta.  
       C-NOM    Y-ACC    head-ACC hit-PST-DECL  
       'Chelswu hit Yenghi on the head.'

I will show that a-structure of relational nouns provides a principled basis for explaining the syntactic and semantic properties of both types of Inalienable Possessor Constructions in Korean.

The organization of the paper is as follows: in section 2, I discuss the semantics of relational nouns. In section 3, I examine the various

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<sup>2</sup>Since more than one NP marked with Accusative Case appear in these constructions, these constructions are also called Multiple Accusative Constructions.

syntactic and semantic properties of two types of Inalienable Possessor Constructions in Korean and show that the a-structure of relational nouns is crucially implicated in explaining them. Finally, in section 4, I summarize the major claims made in the paper and their consequences.

## 2. The Semantics of Relational Nouns

Relational nouns are nouns whose meaning cannot be understood without reference to the existence of another entity that stands in a certain relation to them. For example, unlike common nouns like *pencil* or *animal*, the meaning of relational nouns like *father* cannot be construed without reference to someone for whom the specified relation holds, i.e., a person cannot be a father without there being a person whom he is the father of. Similarly, human body-part nouns such as *head* and *face* are understood with respect to a typical individual. The most conspicuous instances of these nouns are kinship terms such as *father* and *sister*, body-part terms such as *hand* and *eye*, and part-whole terms such as *inside* and *top*.

Taking a more formal approach to the meaning of relational nouns, Barker (1991) defines relational nouns as nouns whose denotations can be best expressed as relations over pairs of entities. His approach is based on the idea that nouns denote relations having different valences. In this approach, common nouns such as *pencil* or *animal* are assumed to be translated as one-place predicates, whereas typical relational nouns like *child* or *father* are translated as two-place predicates. As an example, the meaning of a common noun, *book*, and a relational noun, *mother*, receive the following logical translations.

- (2) a.  $[[\text{pencil}]] = \lambda y [\text{pencil}(y)]$   
 b.  $[[\text{father}]] = \lambda x \lambda y [\text{father}(x,y)]$

As shown in (2), the extension of *father* is the set of all pairs of entities  $x$  and  $y$  such that  $y$  is the father of  $x$ , whereas the extension of *pencil* is a set of entities  $y$ 's such that  $y$  is a pencil.

Since the prototypical instances of relations denoted by relational nouns are inborn or inherent, not conferred by purchase, the possessor argument of relational nouns have usually been called "inalienable pos-

sessors” in the literature, in contrast to the “alienable possessors” of non-relational nouns. In fact, in some languages, inalienable possessors and alienable possessors are distinguished morphologically (Mosel & Hovdhaugen 1992; Elbert & Pukui 1979). For example, in Samoan, the possessive marker for inalienable possessors is *o*, while that same for alienable possessors is *a*, as we see below.

- (3) *Samoan* (Mosel & Hovdhaugen 1992: pp. 283-287, cited from Ura 1996:116)

a. Alienable possessive

‘o                      le   naifi   a   le   fafine  
PRESENTATIVE the knife POSS the woman  
‘the woman’s knife’

b. Inalienable possessive

‘o                      le   uso   o   le   fafine  
PRESENTATIVE the sister POSS the woman  
‘the woman’s sister’

Even in languages where inalienable possessors and alienable possessors are not distinguished morphologically, there is syntactic and semantic evidence that they should be distinguished. In the next section, I will examine how relational nouns and non-relational nouns behave differently in Korean.

### 3. Inalienable Possessor Constructions in Korean

Although inalienable possessors and alienable possessors are not morphologically distinguished in Korean, syntactically, there is evidence that relational nouns behave differently from non-relational nouns. In this section, I examine various syntactic and semantic peculiarities of constructions which involve relational nouns in Korean and show how recognizing the *a*-structure of relational nouns provide a key to explaining them. Specifically, I will examine the properties of two types of inalienable possessor constructions in Korean, i.e., the Internal Inalienable Possessor Construction where the inalienable possessor is realized as a prenominal genitive possessor to the relational noun, and the External Inalienable Possessor construction where the inalienable posses-

sor of a relational noun is realized as an additional object external to the projection of the relational noun.

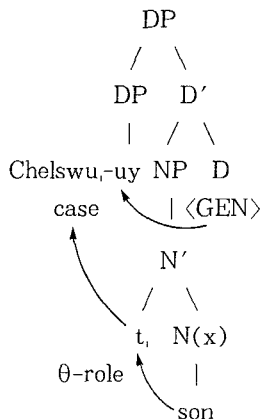
### 3.1. Internal Inalienable Possessor Constructions in Korean

#### 3.1.1. The Structure of Internal Inalienable Possessor Constructions

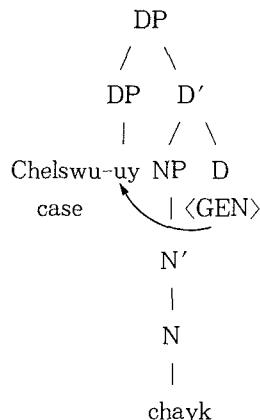
I propose the following structure for NPs headed respectively by a relational noun (5a) and by a non-relational noun (5b), incorporating the insights of Barker (1991) and Ura (1996).<sup>3</sup>

- (4) a. Chelswu-uy son  
       C-GEN hand  
       ‘Chelswu’s hand’  
 b. Chelswu-uy chayk  
       C-GEN book  
       ‘Chelswu’s book’

#### (5) a. structure of (4a)



#### b. structure of (4b)



<sup>3</sup> In this representation, the argument structure of the relational noun “child” is represented as “N(x)”, while that of a non-relational noun like “book” is represented as “N”. This representation makes relational nouns one-place predicates rather than two-place predicates, as Barker proposed. However, it would be a straightforward matter to incorporate Barker’s suggestion into my representation of A-structure, if we follow Williams’ (1981) suggestion that all nouns have an argument, namely, R. Under this view, the A-structure of “child” would be “child<R, x>” while that of “book” would be “book<R>”. In my representation of nominal A-structures in P-markers, I will suppress the R-role, since it does not figure crucially in the analysis.

In the proposed structure, an inalienable possessor of a relational noun is generated inside an NP as its argument where it receives its  $\theta$ -role from the head noun and moves to Spec of DP to check its Case feature. An alienable possessor, however, is base-generated in Spec of DP, not inside the NP, since it is not the argument of the noun. It receives Gen Case from D but it lacks a  $\theta$ -role, since D does not assign any  $\theta$ -role. Thus, the semantic relation between an alienable possessor and a possessee NP is pragmatically determined.<sup>4</sup>

### 3.1.2. Properties of Internal Inalienable Possessor Constructions

The proposed structure of relational DPs based on their a-structure provides explanations for the following properties of Internal Inalienable Possessor Constructions in Korean.

First, the possession relation between a genitive possessor and a possessee nominal differs depending on the nature of the possessee noun. For relational nouns, the possession relation between the possessor and the possessee follows directly from the meaning of the possessee nominal. For example, in the phrase *Chelswu-uy emeni* 'Chelswu's mother', the possessor *Chelswu* is interpreted as standing in a kinship relation to *mother*, since the nominal *emeni* 'mother' denotes a kinship relation. In contrast, as already noted in Williams (1981) and Barker (1991), the possession relation between the possessor and the possessee in the case of non-relational nouns such as *chayk* 'book' is determined by the pragmatic contexts in which the possessee noun is uttered. Thus, in the phrase *Chelswu-uy chayk* 'Chelswu's book', the possession relation between *Chelswu* and *chayk* 'book' can be interpreted in various ways, for example, the book Chelswu owns, the book Chelswu bought, the book Chelswu wrote, etc., depending on the context it is uttered.

The difference in the structure and  $\theta$ -role assignment mechanism of relational and non-relational DPs provides an explanation for this contrast. A genitive possessor of a relational noun is the argument of the noun and as such receives its  $\theta$ -role directly from the noun, whereas a

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<sup>4</sup> Another possibility is to assume that D assigns a possessor  $\theta$ -role, as proposed by Ura (1996). However, even in this case, we will have to assume that the content of this possessor  $\theta$ -role is determined pragmatically since the construal of the possessor relation is determined contextually, as argued by Williams (1981).

genitive possessor of a non-relational noun does not receive a  $\theta$ -role from the noun, since it is not the argument of the noun. It does not receive a  $\theta$ -role from D, either, and since it lacks a  $\theta$ -role so that the semantic relation between the alienable possessor and the possessee NP is determined pragmatically.

However, genitive possessors to relational nouns can be interpreted as alienable as well as inalienable possessors.

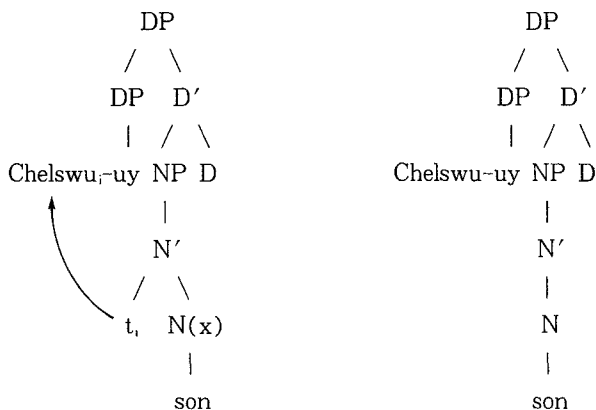
- (6) Chelswu-uy son-i            Yenghi-uy son-pota    khuta.  
      C-GEN        hand-NOM Y-GEN        hand-than    is big  
      'Chelswu's hand is bigger than Yenghi's.'

Although the natural possession relation between the genitive possessor and the noun in the above sentence is an inalienable possession relation, sentence (6) can have another reading where the relation between the two is an arbitrary, i.e., an alienable, relation, if a right context is provided. For example, spoken in an autopsy room, *Chelswu-uy son* 'Chelswu's hand' in (6) can be 'the hand Chelswu has are holding now' or 'the hand Chelswu has cut', etc.

This ambiguity of possessor interpretation in (6) can be attributed to the fact that nouns like *son* 'hand' can be used as non-relational nouns as well as relational nouns, as argued by Barker (1991). That event nouns like *destruction* and *examination* are ambiguous between argument-taking and non-argument-taking interpretation has been already pointed out by Grimshaw (1990). Thus, it seems that it is a general property of argument-taking nouns to be ambiguous between argument-taking and non-argument-taking interpretation.

The following structures illustrate the two different structures of (6) depending on whether *Chelswu* is interpreted as an inalienable possessor or an alienable possessor.

- (7) a. inalienable possessor reading      b. alienable possessor reading



The ambiguity of nouns like *son* 'hand', *meli* 'head' is confirmed by the fact that these nouns can occur without possessors, as we see below.

- (8) a. [i son]-i [ce son]-pota khuta.  
           this hand-NOM that hand-than is big  
           'This hand is bigger than that hand.'
- b. Chelswu-nun thulenkhu-eyse [phimwutun meli]-lul  
    C-TOP       trunk-in       bloody       head-ACC  
    palkyenha-ess-ta.  
    find-PST-DECL  
    'Chelswu found a bloody head in the trunk.'

In (8), *son* 'hand' and *meli* 'head' are understood without reference to a specific entity. In addition, they are understood as a dismembered hand or head. This is explained if *son* 'hand' and *meli* 'head' in (8) are non-relational allowing the possession relation between them and their unexpressed possessors to be an alienable one.

Secondly, unlike non-relational nouns, relational nouns in Korean cannot appear in the construction of the form "A-TOP/NOM B-GEN kes-COPULA", which can be translated as "A is B's" in English.

- (9) a. i chayk-un Chelswu-uy kes-i-ta.  
           this book-TOP C-GEN       thing-COP-DECL  
           'This book is Chelswu's.'



- b. ku cha-nun Chelswu-uy kes-i-ta.  
 the car TOP C-GEN thing-COP-DECL  
 'The car is Chelswu's.'
- (10) a. \* i son-un Chelswu-uy kes-i-ta.  
 the hand-TOP C-GEN thing-COP-DECL  
 '\* The hand is Chelswu's.' (when *Chelswu* is interpreted as the inalienable possessor of *son*)
- b. \* ku nwun-un Chelswu-uy kes-i-ta.  
 this eye-TOP C-GEN thing-COP-DECL  
 '\* That eye is Chelswu's.' (when *Chelswu* is interpreted as the inalienable possessor of *nwun*)

Sentences (10a-b), however, are grammatical when *Chelswu* is interpreted as the alienable possessor of the noun *son* 'hand' and *nwun* 'eye'.

The proposed structure of relational DPs provides an explanation for (9)-(10). I propose that *kes* is a proform and it replaces the second of two identical NPs in this construction, as illustrated below.

- (11) [<sub>DP</sub> i [<sub>NP</sub> chayk]-un [<sub>DP</sub> Chelswu-uy [<sub>NP</sub> chayk]-i-ta.  
 this book-TOP C-GEN book-COP-DECL  
 ↓  
 → [<sub>DP</sub> i [<sub>NP</sub> chayk]-un [<sub>DP</sub> Chelswu-uy [<sub>NP</sub> kes]-i-ta.  
 this book-TOP C-GEN thing-COP-DECL

In (11), since the second instance of the NP *chayk* 'book' is identical to the first instance, it is replaced by the proform *kes*.

In order for *Chelswu* to be interpreted as the inalienable possessor of *son* 'hand' in (10a), the following should be its structure.

- (12) [<sub>DP</sub> i [<sub>NP</sub> son]-un [<sub>DP</sub> Chelswu<sub>i</sub>-uy [<sub>NP</sub> t<sub>i</sub> son]-i-ta.  
 this hand-TOP C-GEN hand-COP-DECL  
 ↓  
 → \* [<sub>DP</sub> i [<sub>NP</sub> son]-un [<sub>DP</sub> Chelswu-uy [<sub>NP</sub> kes]-i-ta.  
 this hand-TOP C-GEN thing-COP-DECL

Given that *kes* can only replace the second of two identical NPs, the second instance of *son* in (12) cannot be replaced by *kes*, since it is not identical to the first, due to the presence of the trace.

The problem does not occur when *Chelswu* is interpreted as an alienable possessor of *son* ‘hand’, since *son* in this interpretation is a non-relational noun and thus there is no trace inside the second instance of *son* ‘hand’, as we see below.

- (13) [DP i [NP son]-un [DP Chelswu-uy [NP son]-i-ta.  
this hand-TOP C-GEN hand-COP-DECL  
↓  
→ [DP i [NP son]-un [DP Chelswu-uy [NP kes]-i-ta.  
this hand-TOP C-GEN thing-COP-DECL

The same array of facts are also observed in the “A is B’s” construction in English, as we see below, and it may be explained in a similar fashion.

- (14) a. The book is John's.  
b. \*The arm is John's. (when *John* is interpreted as the inalienable possessor of *arm*)

As in Korean, *John* in (14b) can be interpreted only as the alienable possessor of *arm*. Assuming that sentences like (14) are derived by deleting the NP from the post-copula DP (Gruber 1965; Saito & Murasugi 1990), the preceding fact is explained if NP-deletion requires strict identity of the two NPs (Saito & Murasugi 1990), as in pronominalization we saw in Korean. As we see in (15) below, when *John* is interpreted as the inalienable possessor of *arm*, i.e., when *arm* is a relational noun, there is a trace inside the NP, and thus the second instance of *arm* cannot be deleted (15a). The problem does not occur when *John* is interpreted as the alienable possessor, since there will no trace inside the NP headed by *arm* (15b).

- (15) a. \*<sub>[DP This <sub>[NP arm]]</sub> is <sub>[DP John's <sub>[NP arm t<sub>i</sub>]]</sub>  
 b. <sub>[DP This <sub>[NP arm]]</sub> is <sub>[DP John's <sub>[NP arm]]</sub>.</sub></sub></sub></sub>

To summarize, the contrast between relational and non-relational nouns in “A is B’s” construction in Korean and English shows that the inalienable possessors of relational nouns are generated as arguments of relational nouns inside the NP unlike the alienable possessors of non-relational nouns.

A further property of relational nouns like *son* 'hand' is that they can be modified only by appositive relative clauses, not restrictive relative clauses ((16a) below), while non-relational nouns like *chayk* 'book' allow both restrictive and appositive modification (16b).

- (16) a. Chelswu-ka tu(1)-n son  
           C-NOM     raise-ADN hand  
           \*'his hand that Chelswu raised' (not the one he kept in his pocket)  
           'his hand, which Chelswu raised'
- b. Chelswu-ka sa-n chayk  
           C-NOM     buy-ADN book  
           'the book that Chelswu bought' (not the one he sold)  
           'the book, which Chelswu bought'

As we see from the English gloss, the relative clause in (16a) can be interpreted only as an appositive relative clause when *Chelswu* is interpreted as the inalienable possessor of the head NP *son*. Thus, (16a) cannot mean "the hand Chelswu raised" in contrast to "the hand Chelswu did not raise." The relative clause in (16b), however, can be interpreted as a restrictive relative clause, when *Chelswu* is interpreted as an alienable possessor of *son* 'hand', i.e., when *son* is a non-relational noun.

The proposed structure of relational nouns provides an explanation. Since the noun *son* is a relational noun, its argument must be realized inside the maximal projection of the theta-marking head. I thus propose that there is a null pronoun inside the DP headed by *son* in (16), as we see in (17).<sup>5</sup>

<sup>5</sup> Another possible structure of (16a) is (i) below. A structure like (i), however, is not an acceptable structure in Korean, as the following example with the overt possessor (ii) shows more clearly.

- (i) a. [<sub>DP</sub> pro, [<sub>CP</sub> Chelswu-ka t, tu(1)-n ] [<sub>NP</sub> son],]  
           C-NOM     raise-ADN     hand
- (ii) \* Yenghi-uy [Chelswu-ka pili-n] chayk  
           Y-GEN     C-NOM     borrow-ADN     book  
           'Yenghi's book that Chelswu borrowed'

(ii) is ill-formed regardless of the restrictive/appositive interpretation of the relative clause.

- (17) [<sub>DP</sub> [<sub>CP</sub> Chelswu<sub>i</sub>-ka t<sub>j</sub> tu(l)-n] [<sub>DP</sub> pro<sub>i</sub> son]<sub>j</sub>]  
           C-NOM                   raise-ADN                   hand

The presence of a null pronoun inside the DP headed by *son* in (17) now provides an explanation for the unavailability of a restrictive relative clause interpretation in (16a): it is because restrictive relative clauses and possessors in general cannot co-exist, as we see more clearly with overt possessors.

- (18) \* [Chelswu-ka pili-n]           [Yenghi-uy chayk]  
           C-NOM           borrow-ADN Y-GEN       book

‘\* Yenghi’s book that Chelswu borrowed (as opposed to the book that he gave her)’

Ultimately, the reason the structure like (18) is unacceptable may be attributed to the semantic oddity of having more than one word, i.e., the possessor and the relative clause, functioning as restrictive modifiers to the noun. The semantic nature of this prohibition on the co-occurrence of possessors and restrictive relative clauses receives support by similar facts in English, as illustrated in (19) below.

- (19) \* Mary’s book that John borrowed.

Thus, the presence of a null pronoun possessor inside the DP headed by *son* ‘hand’ provides an explanation for the impossibility of restrictive relative clause interpretation in (16a): if there were no null *pro* inside the DP headed by *son* ‘hand’ in (16a), there is no reason the relative clause in (16a) cannot be interpreted as a restrictive relative clause, as in (16b), where non-relational nouns were relativized. Since *cha* ‘car’ in (16b) is a non-relational noun, no null pronoun possessor is required, so that the relative clause in (16b) can be interpreted as a restrictive relative clause.

That the relative clause in (16a) can be interpreted as a restrictive relative clause when *Chelswu* is interpreted as the alienable possessor of *son* ‘hand’ receives an explanation given that *son* in that reading is a non-relational noun meaning that there is no *pro* inside the DP, as illustrated in (20).

- (20) [[Chelswu-ka tu(l)-n] [son]]  
           C-NOM       raise-ADN hand  
           'the hand that Chelswu raised (during an autopsy)'

In short, the difference in the interpretation of a relative clause depending on the relational/non-relational nature of the head noun can be attributed to the presence or absence of a null pronoun possessor. Given that null pronouns are required when the relational noun assigns a  $\theta$ -role to the possessor, the contrast observed above constitutes evidence that relational nouns require the syntactic projection of their arguments.

In the next section, I will examine various semantic and syntactic peculiarities of External Inalienable Possessor Constructions in Korean and show how the hypothesis that relational nouns have a-structure provides a key to explaining them.

### 3.2. External Inalienable Possessor Constructions

Unlike the constructions we have considered in the previous section, where the inalienable possessor of a relational noun is realized as a genitive possessor inside the DP, the inalienable possessor can also be realized outside the maximal projection of its theta-marking noun, as we see below.

- (21) a. Chelswu-ka namwu-lul kaci-lul       cal-ess-ta.  
           C-NOM       tree-ACC   branch-ACC cut-PST-DCL  
           'Chelswu cut the branch of the tree.'  
       b. Chelswu-ka Yenghi-lul meli-lul     chi-ess-ta.  
           C-NOM       Y-ACC     head-ACC hit-PST-DCL  
           'Chelswu hit Yenghi's head.'

In (21a), the first object, *namwu* 'tree' is interpreted as the inalienable possessor of the second object, *kaci* 'branch'. Similarly, in (21b), the first object, *Yenghi*, is interpreted as the inalienable possessor of the second object *meli* 'head'. That the first object *Yenghi* is outside the maximal projection of the second object *son* 'hand' is demonstrated by the fact that an adverb can intervene between the two objects.

- (22) Chelswu-ka Yenghi-lul salmyesi son-ul cap-ess-ta.  
 C-NOM Y-ACC gently hand-ACC hold-PST-DCL  
 'Chelswu held Yenghi's hand gently.'

Since more than one object can appear in such a sentence, this construction is also known as the Multiple Object Construction (MOC).<sup>6</sup> Due to various semantic and syntactic peculiarities it manifests, it has received a considerable amount of attention in the study of Korean syntax. Among previous researchers, however, only a few have paid attention to the a-structure of nouns involved in MOCs (J. H-S Yoon 1989; Kim 1989). As a result, many of the semantic and syntactic peculiarities of MOCs remain unexplained in previous studies. In this section, I propose an analysis which capitalizes on the a-structure of nouns involved in MOCs and show how recognizing the a-structure of relational nouns provides the key to the proper understanding of various properties of MOCs. I will also show why the analyses of MOCs utilizing possessor raising (Chun 1985; Choe 1987; Ura 1996, etc.) fail as proper analyses of MOCs.

### 3.2.1. Properties of MOCs

First, more objects than are required by the predicate of a sentence may appear in MOCs.

- (23) a. Chelswu-ka Yenghi-lul meli-lul chi-ess-ta.  
 C-NOM Y-ACC head-ACC hit-PST-DCL  
 'Chelswu hit Yenghi's head.'  
 b. Chelswu-ka namwu-lul kaci-lul kkut-ul cal-ess-ta.  
 C-NOM tree-ACC branch-ACC end-ACC cut-PST-DCL  
 'Chelswu cut the end of the tree's branch.'

In (23), the verb *chita* 'hit' and *caluta* 'cut' are monotransitive verbs but there are two or three objects in the sentence.

Second, the two adjacent objects in MOCs should be in a part-whole relation.<sup>7</sup>

<sup>6</sup> In this section, I will use the more familiar term MOCs interchangeably with External Inalienable Possessor Constructions.

<sup>7</sup> An anonymous reviewer has pointed out that the two objects in some MOCs are not in a part-whole relation, as we see below.

- (24) a. Chelswu-ka chayksang-ul moseli-lul kkak-ess-ta.  
           C-NOM     desk-ACC     corner-ACC cut-PST-DCL  
           ‘Chelswu cut the corner of the desk.’  
       b. ?\* Chelswu-ka Yenghi-lul yenphil-ul pwulettuli-ess-ta.  
           \* C-NOM       Y-ACC       pencil-ACC break-PST-DCL  
           ‘Chelswu broke Yenghi’s pencil.’

(24a) is well-formed, since *chayksang* ‘desk’ and *moseli* ‘corner’ are in a part-whole relation. (24b), however, is not acceptable, since *Yenghi* and *yenphil* ‘pencil’ are not in a part-whole relation.

Third, the possession relation between whole-NPs and part-NPs in MOCs can only be an inalienable possession relation, whereas the relation between genitive possessors and possessed nominals can be an alienable as well as an inalienable one.

- 
- (i) a. Chelswu-nun photo-lul swul-ul mantul-ess-ta.  
           C-NOM       grapes-ACC wine-to turn-PST-DECL  
           ‘Chelswu turned the grapes into wine.’  
       (ii) Na-nun kamela-lul kaynon-ul sa-ess-ta.  
           I-TOP camera-ACC canon-ACC buy-PST-DECL  
           ‘I bought a camera, a Canon.’

I propose to distinguish these kinds of MOCs from the MOCs I am discussing in this paper for the following reasons: first, the two ACC-marked NPs in (i) are selected/subcategorized by the predicate, whereas in the MOCs under discussion, only one, i.e., the second of two ACC-marked NPs, is selected/subcategorized by the predicate. The following sentence shows more clearly that the verb *mantulta* in (i) selects two arguments. Multiple ACC-marking arises in Korean because the predicative NP complement of *mantulta* can be marked with either the postposition *-lo* ‘to’ or ACC-Case marker *-lul*.

- (iii) Chelswu-nun photo-lul swul-lo mantul-ess-ta.  
           C-NOM       grapes-ACC wine-to turn-PST-DECL

Such multiple ACC-marking is also found with dative verbs.

- (iv) Chelswu-nun Yenghi-lul chayk-ul cwu-ess-ta.  
           C-NOM       Y-ACC     book-ACC give-PST-DECL  
           ‘Chelswu gave Yenghi a book.’

As for (ii), I propose that the second object *kaynon-ul* is an appositive NP which further specifies the reference of the first object *kamayla* ‘camera’, as we see in the English gloss in (ii). The discussion of MOCs in this paper is restricted to those in which there is an argument relation between the adjacent ACC-marked NPs.

- (25) a. Chelswu-ka Yenghi-uy meli-lul chi-ess-ta.  
           C-NOM     Y-GEN     head-ACC hit-PST-DCL  
           ‘Chelswu hit Yenghi’s head.’  
       b. Chelswu-ka Yenghi-lul meli-lul chi-ess-ta.  
           C-NOM     Y-ACC     head-ACC hit-PST-DCL  
           ‘Chelswu hit Yenghi on the head.’

The readily available reading of the two sentences above is of course one of inalienable possession between *Yenghi* and *meli* ‘head’. However, under appropriate contexts, sentence (25a) could also mean that Chelswu hit the head Yenghi temporarily possesses, i.e., the possession relation between Yenghi and the head could be an alienable one, as we have already seen in section 3.1. (25b), in contrast, cannot be interpreted that way.

Fourth, part-NPs in MOCs resist modification by appositive adjectives (26a), although they can be modified by restrictive adjectives (26b) (J. H-S Yoon 1989; Kim 1989).

- (26) a. \*? Chelswu-ka Yenghi-lul yeppun elkwul-ul chi-ess-ta.  
           C-NOM     Y-ACC     pretty face-ACC hit-PST-DCL  
           ‘Chelswu hit Yenghi’s face, which is pretty.’  
       b. Chelswu-ka Yenghi-lul olun son-ul pwulettuli-ess-ta.  
           C-NOM     Y-ACC     right hand-ACC break-PST-DCL  
           ‘Chelswu broke Yenghi’s right (not left) hand.’

Fifth, unlike whole-NPs, part-NPs in MOCs resist extraction (J. H-S Yoon 1989; Kim 1989).

- (27) a. Chelswu-ka namwu-lul kaci-lul cal-ess-ta.  
           C-NOM     tree-ACC   branch-ACC cut-PST-DCL

#### Relativization

- b. [Chelswu-ka t<sub>i</sub> kaci-lul cal-un] namwu,  
       C-NOM     branch-ACC cut-COMP tree  
       c. \* [Chelswu-ka namwu-lul t<sub>i</sub> cal-un] kaci,  
           C-NOM     tree-ACC     cut-COMP branch

#### Scrambling

- d. namwu<sub>i</sub>-lul [Chelswu-ka t<sub>i</sub> kaci-lul cal-ess-ta.]  
       tree-ACC   C-NOM           branch-ACC cut-PST-DCL



- e. \* kaci-lul [Chelswu-ka namwui-lul t<sub>i</sub> cal-ess-ta.]  
 branch-ACC C-NOM tree-ACC cut-PST-DCL

#### Topicalization

- f. namwu,-nun [Chelswu-ka t<sub>i</sub> kaci-lul cal-ess-ta.]  
 tree-TOP C-NOM branch-ACC cut-PST-DCL  
 g. \* kaci-nun [Chelswu-ka namwu,-lul t<sub>i</sub> cal-ess-ta.]  
 branch-TOP C-NOM tree-ACC cut-PST-DCL

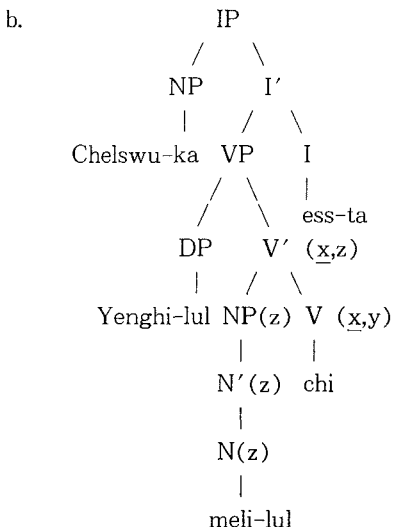
Sixth, part-NPs in MOCs cannot co-occur with demonstratives such as *i/ku/ce* 'this/the/that'.

- (28) \*Chelswu-ka namwu-lul [ku kaci-lul] cal-ess-ta.  
 C-NOM tree-ACC that branch-ACC cut-PST-DCL  
 'Chelswu cut that branch of the tree.'

#### 3.2.2. The Argument Structure of Relational Nouns & the Structure of MOCs

Recognizing the argument structures of part-nouns involved in MOCs provides a key to the explanation of these and other related properties of MOCs. Adopting the analysis proposed in J. H-S Yoon (1989), I propose that the structure for MOCs like (29a) is as in (29b).

- (29) a. Chelswu-ka Yenghi-lul meli-lul chi-ess-ta.  
 C-NOM Y-ACC head-ACC hit-PST-DCL



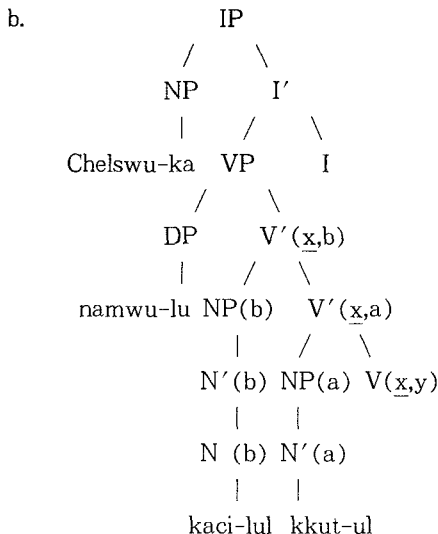
MOCs in my account are not derived by movement of the possessor out of the DP headed by the relational noun, as in H-S Choe (1987) and Ura (1996), for example, but are base-generated and licensed by a special kind of thematic licensing. In (29), I propose that when the argument of the relational noun is not saturated internal to the projection of the noun, the nominal projects an NP that is thematically open, rather than a DP. (see section 3.2.3.4. for justification of this assumption). Now, a verb can theta-mark (in the sense of Higginbotham 1985) an object that is thematically saturated, but not one that is not, since the latter is a predicate. Instead, what happens in (29) is that the open NP combines with the verb by Function Composition (Di Sciullo & Williams 1987; Williams 1994, and much work in Categorical Grammar). By Function Composition, the verb combines with the NP it selects, and the open argument position of the NP is inherited by the resulting combination ( $V'$ ).<sup>8</sup>

This process can be iterated if the  $V'$  combines with another unsaturated NP projection, and comes to an end when it combines with a referential (thematically closed) DP as shown in (30) below. This then accounts directly for the generalization that all but the first nominal in an MOC must be relational nouns.

- (30) a. Chelswu-ka namwu-lul kaci-lul      kkut-ul    cal-ess-ta.  
          C-NOM      tree-ACC   branch-ACC end-ACC cut-PST-DCL  
          'Chelswu cut the end of the tree's branch.'

---

<sup>8</sup>Unlike Categorical Grammar where referential (closed) constituents can become functors by Type Raising and combine via Function Composition, I am restricting Function Composition just to the combinatorial relation between two inherently unsaturated constituents. Schematically, in FC, two functors  $X/Y + Y/Z$  are composed to yield a complex functor  $X/Z$ . In (29),  $X=V$ ,  $Y$  =internal argument of  $V$ , which is the NP projected from the relational noun, and  $Z$ =argument of the relational noun.



The crux of the proposed analysis is that what crucially makes multiple objects possible in Korean is that part-nominals involved in MOCs are thematically unsaturated, which in turn is attributed to the fact that part nouns are argument-taking nouns.<sup>9</sup>

### 3.2.3. Explaining the properties of MOCs

#### 3.2.3.1. Why only Part-Whole Nouns?

The proposed analysis provides an immediate answer to why the two adjacent objects of MOCs must have a part-whole relation, i.e., why the second object of two adjacent objects cannot be a non-relational noun and why the first of the two must stand in a part-whole relation to the second.

- (31) a. ?\* Chelswu-ka Yenghi-lul chayk-ul ccic-ess-ta.  
           C-NOM     Y-ACC     book-ACC tear-PST-DCL  
           ‘Chelswu tore Yenghi’s book.’  
       b. ?\* Chelswu-ka TV-sok-ul elkwul-ul chi-ess-ta.  
           C-NOM     TV-in-ACC face-ACC hit-PST-DCL  
           ‘Chelswu hit the face on TV.’

<sup>9</sup>In this paper, I will assume that in principle, multiple ACC Cases are available in Korean, without discussing the specifics of multiple Case licensing.

In (31a), the NP headed by *chayk* is thematically saturated, since the noun *chayk* is not an argument-taking noun. The NP *chayk* will, therefore, cancel out the argument position of the verb, and consequently, no other object can be licensed. (31b) is ungrammatical since the higher object *TV-sok* is not an argument of the second object, *elkwul*, although the noun itself is a relational noun.

If it is the argument-taking nature of part-nouns that makes MOCs possible, however, a question remains as to why not all relational nouns allow MOCs, as illustrated below.

- (32) !! Chelswu-nun Yenghi-lul emeni-lul ttayli-ess-ta.  
           C-TOP       Y-ACC     mother-ACC hit-PST-DECL  
           ‘Chelswu hit Yenghi’s mother.’

To solve this problem, I propose that the unacceptability of sentences like (32) is not because the nouns like *emeni* do not have a-structures, but because these sentences do not satisfy the affectedness condition, a pragmatic condition all MOCs must satisfy independently of a-structure requirement (J. H-S Yoon 1989). The following sentences show that well-formed MOCs must satisfy the affectedness condition, independently of the a-structure requirement.

- (33) Chelswu-ka Yenghi-lul elkwul-ul ttayli-ess-ta.  
           C-NOM       Y-ACC     face-ACC hit-PST-DCL  
           ‘Chelswu hit Yenghi’s face.’
- (34) a. !! Chelswu-ka Yenghi-lul elkwul-ul po-ess-ta.  
           C-NOM       Y-ACC     face-ACC see-PST-DCL  
           ‘Chelswu saw Yenghi’s face.’  
       b. !! Chelswu-ka Yenghi-lul elkwul-ul cohaha-n-ta.  
           C-NOM       Y-ACC     face-ACC like-PRS-DCL  
           ‘Chelswu likes Yenghi’s face.’

The contrast in the acceptability of sentence (33) and (34) shows that having two adjacent objects which are in a part-whole relation is not a sufficient condition for well-formed MOCs. Unlike (33), the verbs in (34a-b) take unaffected objects and thus the sentences are ungrammatical.

The unacceptability of sentences like (32) can also be explained in

terms of the affectedness condition. Note that when there is no part-whole relation between the two objects in MOCs, the first object, i.e., the object of a complex predicate, is not affected. For instance, the first object, *Yenghi*, in (32) is not affected by the action expressed by the complex predicate, i.e., hitting the referent of the second object, *emeni* 'mother' unlike that in (33). Thus, given that the affectedness condition has to be satisfied in order for a MOC to be acceptable, it is expected that relational nouns which do not express part-whole relations cannot license MOCs.

Although the question of why MOCs must satisfy the affectedness condition needs more systematic investigation, I suggest provisionally that it is a condition of pragmatic nature. A purely syntactic explanation of the affectedness condition such as the one suggested by J. H-S Yoon (1989) based on Larson (1988) faces problems. According to Larson, Spec of VP is a canonical direct object position and canonical direct objects are always affected (Tenny 1987).

First of all, although this could work for Korean, assuming that the whole-nominal occupies the Spec of VP, it faces a problem with the Inalienable Possessor Construction in French, which also shows the affectedness effects: according to Kayne (1975), the whole-NP in the French External Inalienable Possessor Constructions, as illustrated below, is also analyzed as a malefactive/benefactive complement of the verb, i.e., as a complement affected by the action or state referred to by the verb.

- (35) a. Le médecin a radiographié l' estomac  
           the doctor X-rayed SING DEF DET stomach  
           aux enfants.  
           to the children  
           'The doctor X-rayed the children's stomachs.'
- b. Le médecin leur a radiographié l' estomac.  
           the doctor to them X-rayed SING DEF DET stomach  
           'The doctor X-rayed their stomachs.'

If the affectedness effect is the result of the object occupying Spec of VP, the French data is not easily explained, since it is difficult to view the dative complement, *aux enfants* in the above examples, as occupy-

ing the Spec of VP.

In addition, sentences like the following also constitute a problem for a purely syntactic account of the affectedness condition.

- (36) Chelswu-ka Yenghi-lul elkwul-ul ttwulecikey po-ess-ta.  
       C-NOM     Y-ACC     face-ACC hard             see-PST-DCL  
       ‘Chelswu saw Yenghi’s face hard enough to make a hole in it.’

Sentence (36) differs from the unacceptable (34a) only in that an adverb was added to the verb in (34a), but it is far more acceptable than the corresponding sentence without the adverb. Since adding an object does not change the position the object occupies in a sentence, according to Larson’s explanation of the affectedness condition, the improved acceptability of (36) in contrast to (34a) is not expected. However, if the affectedness condition is a pragmatic condition, we may explain the contrast as the adverb *ttwulecikey* ‘hard’ makes the affected interpretation of the object *Yenghi* pragmatically easier to obtain.

Finally, the fact that acceptability judgment of MOCs can vary among speakers is also indicative of the pragmatic nature of affectedness condition.

At this point, one might be tempted to claim that all instances of unacceptable MOCs can be explained in terms of the affectedness condition alone, without appealing to the argument structures of relational nouns. This claim, however, is not tenable. If the affectedness constraint is a purely pragmatic constraint and is singlehandedly responsible for the unacceptability of MOCs, the prediction would be that MOCs which involve non-relational nouns would also be acceptable as long as the first of the two adjacent objects can be interpreted as affected. That this prediction is not borne out is evidenced by the complete unacceptability of sentences like (37) below.

- (37) \* Kutul-i Chelswu-lul Yenghi-lul cwuki-ess-ta.  
       they-NOM C-ACC     Y-ACC     kill-PST-DECL

Imagine a situation where the life and death of Chelswu totally depends on that of Yenghi, i.e., if Yenghi dies, then Chelswu dies, too. When spoken in a pragmatic context like this, we could say that the referent of the first object *Chelswu* in (37) is affected by the activity expressed

by the complex predicate, but the sentence is still unacceptable. This shows that no matter how plausible a pragmatic context is provided, a MOC cannot be acceptable unless the second object of the two adjacent object is an argument-taking noun.

In short, the preceding discussion shows that having nouns which have a-structure is a necessary, although not sufficient, condition on MOCs. Since only a thematically unsaturated NP can combine with a verb and form a complex predicate which takes another argument, and non-relational nouns, by nature, are thematically unsaturated, it is expected that only relational nouns can license MOCs.

### 3.2.3.2. Lack of the Alienable Possession Relation

The proposed analysis explains why whole-DPs in MOCs cannot be interpreted as the alienable possessors of part-NPs (38b) unlike the genitive possessors (38a).

- (38) a. Chelswu-ka Yenghi-uy meli-lul chi-ess-ta.  
           C-NOM    Y-GEN    head-ACC hit-PST-DCL  
           ‘Chelswu hit Yenghi’s head.’  
       b. Chelswu-ka Yenghi-lul meli-lul chi-ess-ta.  
           C-NOM    Y-ACC    head-ACC hit-PST-DCL  
           ‘Chelswu hit Yenghi on the head.’

As already discussed in section 3.1., the genitive possessor in (38a) can be interpreted both as an inalienable and as an alienable possessor. This is expected given that nouns like *meli* ‘head’ are ambiguous between relational and non-relational meaning. However, the same kind of ambiguity with respect to inalienable/alienable possession distinction is not observed in MOCs. This calls for an explanation.

The analysis of MOCs proposed in this section provides such an explanation. Recall that what makes more than one object possible in the proposed analysis is that part-NPs are thematically unsaturated, which, in turn, is attributed to the fact that they are headed by argument-taking nouns. Given this, the absence of alienable possession relation between whole-NPs and part-NPs in MOCs can be explained. First, since part-NPs in MOCs can be headed only by relational nouns, it is expected that whole-NPs can only be the inalienable possessors of part-NPs.

Secondly, given that part-NPs must be thematically unsaturated, the following structure, which could yield the alienable as well as the inalienable possession relation between whole-NPs and part-NPs, cannot be the structure of MOCs like (38b), since the part-NP in it is thematically saturated due to the presence of a null pronoun.

- (39) \*Chelswu-ka Yenghi-lul, [pro; meli-lul] chi-ess-ta.  
       C-NOM     Y-ACC     head-ACC     hit-PST-DCL  
       'Chelswu hit Yenghi's head.'

### 3.2.3.3. Restriction on Appositive Modification

That part-NPs in MOCs resist modification by appositive adjectives can be attributed to the thematic unsaturatedness of these NPs, if we assume that thematically unsaturated NPs cannot be modified by appositive modifiers (J. H-S Yoon 1989; Kim 1989; Vergnaud & Zubizarreta 1992).<sup>10</sup> If the restriction on appositive modification is the result of thematic unsaturatedness of part NPs in MOCs, the prediction is that part-NPs which are thematically saturated will not show this restriction. This prediction is borne out, as we see below.

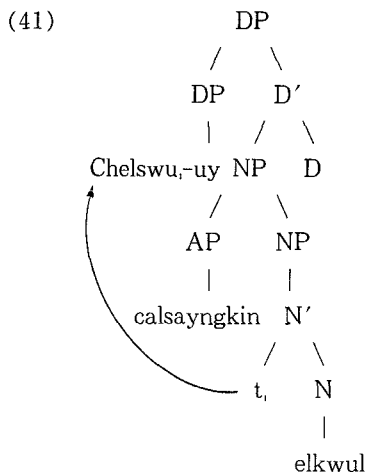
- (40) ku-nun [Chelswu-uy calsayngkin elkwul-ul] ttaylye-ess-ta.  
       he-TOP C-GEN     handsome     face-ACC     hit-PST-DCL  
       'He hit Chelswu's handsome face.'

In (40), the adjective *calsayngkin* can be interpreted as the appositive modifier since the NP it modifies is thematically saturated, as we see in the following structure.

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<sup>10</sup> Kim (1989) claims that part-NPs in MOCs resist appositive modification since they are predicative NPs and predicative NPs in general resist appositive modification. Kim's analysis does not differ from the explanation given here in terms of thematic unsaturatedness, since predicative NPs are thematically unsaturated, if we take the R-argument of Williams (1994) into account.





In this structure, the genitive possessor *Cheslwu* has moved from inside the  $N'$  to the DP-Specifier position and therefore, there is a trace inside the  $N'$ . The adjective *calsayngkin* 'handsome' modifies this NP and since it is thematically saturated, the adjective can be interpreted as an appositive modifier.

The behavior of other thematically unsaturated nominals such as part-DPs in French External Inalienable Possessor Constructions evidences that the restriction on appositive modification is a characteristic of thematically unsaturated nominals is also evidenced by (Kayne 1975; Authier 1988; Vergnaud & Zubizarreta 1992).

- (42) a. Le coiffeur      a peigné ses cheveux soyeux.  
          the hairdresser combed her hair      silky  
          'The hairdresser combed her silky hair.'
- b. \* Le coiffeur      lui      a peigné le cheveux soyeux.  
          the hairdresser to her combed the hair      silky
- (Vergnaud & Zubizarreta 1992: p. 603)

(42) shows that part-nominals in French cannot be modified by appositive modifiers, when the inalienable possessor of the head-noun is realized outside the nominal projection of its theta-marking head as a dative object (42b), whereas they allow appositive modification when the inalienable possessor is realized inside the nominal projection as a genitive possessor (42a).

Vergnaud & Zubizarreta (1992) also propose to explain this contrast in modification between the External Inalienable Possessor Construction and the Internal Inalienable Possessor Construction in terms of the thematic “openness/closeness” of the part-nominals in the two constructions: part-nominals in the External Possessor Construction of the type (42b) are thematically unsaturated, unlike those in the Internal Possessor Construction of the type (42a), and thus, they cannot be modified by appositive adjectives.

Additional evidence for the fact that thematically unsaturated nominals resist appositive modification comes from the behavior of complex event NPs in Light Verb Constructions with respect to appositive modification (J H-S Yoon 1991).

- (43) a. Chelswu-nun kyengchal-ey ku sasil-ul poko-lul  
           C-TOP      police-DAT that fact-ACC report-ACC  
           hay-ess-ta.  
           do-PST-DCL  
           ‘Chelswu reported the fact to the police immediately.  
    b. ?\* Chelswu-nun kyengchal-ey ku sasil-ul sinsokhan  
           C-TOP      police-DAT that fact-ACC fast  
           poko-lul hay-ess-ta.  
           report-ACC do-PST-DCL  
           ‘Chelswu reported the fact to the police immediately.

In (43a), the indirect object and the direct object are arguments of the complex event noun *poko* ‘report’, since the verb *hata* ‘do’ does not take indirect objects. DAT and ACC Case marking on the objects indicates that they are outside the nominal projection of their theta-marking head, *poko* ‘report’ and this, in turn, shows that the nominal phrase *poko* is thematically unsaturated.<sup>11</sup> Thus, that the complex event NPs in Light Verb Constructions resist appositive modification as in (43)b, again, shows that impossibility of appositive modification is a characteristic of thematically unsaturated nominals in general.

#### 3.2.3.4. Non-extractability of Part-NP

When we confine our attention to Korean, it appears that the unex-

<sup>11</sup> See J. H-S Yoon (1991) for details.

tractability of part-NPs can be attributed simply to the thematic unsaturatedness of part-NPs in MOCs, just like the restriction on appositive modification we have discussed in the previous section. That the restriction on extraction is a characteristic of thematically unsaturated NPs is, again, evidenced by the fact that other thematically unsaturated NPs such as complex event nominals in Light Verb Constructions in Korean manifest the same property, as the following sentences illustrate.

- (44) a. \*poko<sub>i</sub>-lul [Chelswu-ka kyengchal-ey ku sasil-ul t,  
report-ACC C-NOM police-DAT that fact-ACC  
hay-ess-ta.]  
do-PST-DCL  
'Chelswu reported the fact to the police.'
- b. [Chelswu-ka kyengchal-ey ku sasil-ul t,  
C-NOM police-DAT that fact-ACC  
ha-n] poko<sub>i</sub>,  
do-COMP report  
'the report that Chelswu made to the police concerning the fact'

However, the behavior of part-nominals in the External Inalienable Possessor Constructions in French suggests that thematic unsaturatedness alone cannot explain the unextractability of part-nominals in MOCs: as we have already seen, although part-nominals in French External Inalienable Possessor Constructions resist modification by appositive modifiers (45b), they can be extracted, unlike in Korean (45c).

- (45) a. Pierre lui est lavé les cheveux.  
Pierre to him washed the hair  
'Pierre washed his hair.'
- b. \* Pierre lui est lavé les cheveux soyeux.  
Pierre to him washed the hair silky  
'Pierre washed his silky hair.'
- c. Les cheveux, lui ont été lavé t,  
the hair to him have been washed  
'His hair has been washed.'

Thus, given the French data, thematic unsaturatedness of part-nominals in Korean External Inalienable Possessor Constructions, i.e., MOCs, is not enough to explain the non-extractability of part-NPs in Korean in contrast to French.

I propose that the difference between the two languages lies in the difference in the status of DP in the two languages. Specifically, I propose that unlike French, DP is an optional projection in Korean, and thus thematically unsaturated nominals do not project DPs. This means that thematically unsaturated part-nominals in MOCs in Korean are NPs, not DPs, as I have proposed in section 3.2.2.

That part-nominals in MOCs cannot take demonstratives supports that they are NPs, not DPs, if we take demonstratives to be licensed by D.

- (46) \*Chelswu-ka namwu-lul **ku** kaci-lul cal-ess-ta.  
       C-NOM     tree-ACC that branch-ACC cut-PST-DCL  
       ‘Chelswu cut that branch of the tree.’

French differs from Korean in that DP in French is an obligatory projection. As is clear from the presence of the definite determiner *les* in (45), thematically unsaturated part-nominals in French External Inalienable Possessor Constructions are DPs. This is possible, since the definite determiners in French can be an expletive with respect to referentiality, as has been already noted (Gueron 1985; Vergnaud & Zubizarreta 1992).

Given this, the difference in the extraction of part-nominals in Korean and French External Inalienable Possessor Constructions can be attributed to the difference in the syntactic status of thematically unsaturated nominals in the two languages: if we assume that only DPs can undergo movement,<sup>3</sup> the difference in extractability of part-nominals in French and Korean is explained. The assumption that NPs cannot be extracted is not unreasonable, since NP corresponds to N' in the pre-DP system and it is well-known that non-maximal projections cannot be moved.

To summarize, the proposed analysis explains why the thematically unsaturated part-nominals in External Inalienable Possessor Constructions in Korean and French behave differently with respect to extrac-

tion, although they concur with respect to appositive modification. It is because thematically unsaturated part-nominals are NPs in Korean, whereas they are DPs in French. Ultimately, this difference between the two languages in the syntactic status of part-nominals has to be attributed to the fact that there can be cross-linguistic variation in the obligatoriness/optionality of the DP.

Further support for the proposal that thematically unsaturated nominals do not project DP in Korean is provided by the behavior of complex event nominals in Light Verb Constructions in Korean, another construction with thematically unsaturated nominals, that parallels that of part-NPs in MOCs. Like part-NPs in MOCs, they also cannot take demonstratives (47a) and cannot be extracted (47b).

- (47) a. \*Chelswu-ka kyengchal-ey sasil-ul i poko-lul  
           C-NOM           police-DAT fact-ACC this report-ACC  
           hay-ess-ta.  
           do-PST-DECL  
           ‘\*Chelswu made this report of the fact to the police.’  
       b. \*poko-lul, [Chelswu-ka kyengchal-ey sasil-ul t,  
           report-ACC C-NOM           police-DAT fact-ACC  
           hay-ess-ta.]  
           do-PST-DCL  
           ‘Chelswu reported the fact to the police.’

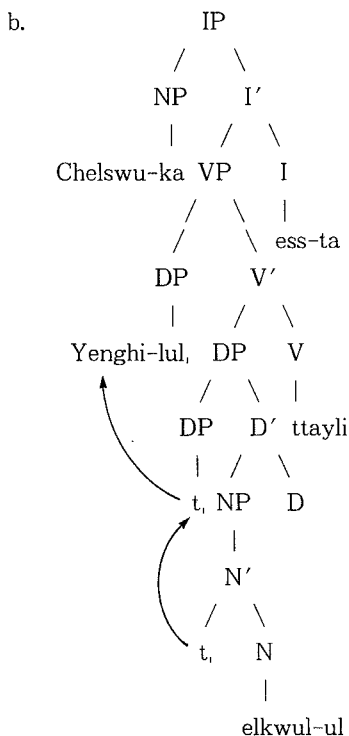
(47a) shows that NP *poko* ‘report’ cannot take a demonstrative like *i* ‘this’ and (47b) shows that *poko* ‘report’ cannot be extracted. Given that complex event nominals in Light Verb Constructions are thematically unsaturated, that they cannot take demonstratives or be extracted, just like part-NPs in MOCs, provides further support to the proposal that thematically unsaturated nominals are NPs, not DPs, in Korean.

### 3.2.4. Against the Possessor Raising Analysis of MOCs

Various properties of MOCs I have examined and provided explanations for in this section provide evidence against the analyses of MOCs which do not take into account the a-structure of relational nouns involved in MOCs. Possessor Raising Analyses, a popular analysis of MOCs in Korean (Chun 1985; Choe 1987; Kang 1987; Ura 1996, etc.)

suffer from this defect. Although the Possessor Raising Analyses proposed by various researchers differ in their specifics, in the Possessor Raising Analyses of MOCs, the possessor of a part noun raises to the Spec of VP, leaving its trace inside the part-NP. For example, the following is the schematic structure of MOCs under the Possessor Raising Analyses.

- (48) a. Chelswu-ka Yenghi-lul elkwul-ul ttayli-ess-ta.  
 C-NOM Y-ACC face-ACC hit-PST-DECL  
 'Chelswu hit Yenghi on the face.'



The following are the properties of MOCs which received principled explanations in the analysis proposed in this section but are not easily explained in Possessor Raising Analyses.

First, Possessor Raising Analyses have difficulty in explaining why only relational nouns (part nouns, to be precise) license MOCs, since inalienable possessors and alienable possessors are not distinguished in

them.<sup>12</sup>

Secondly, in Possessor Raising Analyses, it is not explained why there is difference in appositive modification of part-nominals between MOCs and Internal Inalienable Possessor Constructions, i.e., why the part-nominals in MOCs resist appositive modification, whereas the part-nominals in the Internal Inalienable Possessor Constructions do not. I have suggested that the reason part-nominals in MOCs resist appositive modification is their thematic unsaturatedness. In the Possessor Raising Analyses, however, part-NPs are thematically saturated expressions, since raising of a possessor will leave a trace inside the part-NP, as we see in (47). Therefore, Possessor Raising Analyses cannot explain why part-nominals in MOCs cannot be modified by appositive adjectives.

Thirdly, Possessor Raising Analyses cannot explain why the possession relation between whole-NPs and part-NPs cannot be an alienable one. According to the Possessor Raising Analyses, the projection of part-NPs are basically the same in MOCs and in Internal Inalienable Possessor Constructions, and given that part nouns like *son* 'hand' are ambiguous between relational and non-relational interpretation, the possessors of part-nouns, i.e., the whole-nominals, must be able to be interpreted as alienable possessors just like in Internal Inalienable Possessor Constructions.

In short, Possessor Raising Analyses fail to explain the difference in the possession relation between MOCs, i.e., External Inalienable Possessor Constructions, and Internal Inalienable Possessor Constructions. In the analysis proposed in this paper, this difference is explained, since in

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<sup>12</sup> The inalienable/alienable possessor distinction could be captured, although with difficulty, in the Possessor Raising Analysis proposed by Ura (1996) in terms of the inherent vs structural nature of the Case assigned to possessors. Ura proposes that the D which assigns the possessor theta-role to the alienable possessor assigns an inherent Case, whereas D which does not assign a possessor theta-role assigns the structural genitive Case to the possessor of an inalienable noun. In addition, he suggests that possessor raising is possible in L only if D (GEN) may have no structural Case in L. It is because otherwise, when the possessor raises, the GEN Case of D is not checked, causing the derivation to crash. Although not explicitly discussed in Ura (1996), the reason alienable possessors cannot raise in his analysis must be because inherent Case, unlike the Structural GEN Case, which can remain unassigned, must accompany the possessor theta-role assignment by the D.

order for the multiple object to be taken, it is crucial that the part-nominals be thematically unsaturated, as well as they be relational nouns.

#### 4. Conclusion

In this paper, I have shown that the hypothesis that relational nouns have a-structure can provide a principled basis for the explanation of various syntactic and semantic properties of two types of Inalienable Possessor Constructions in Korean, i.e., the Internal Inalienable Possessor Constructions and the External Inalienable Possessor Constructions (i.e., MOCs). In particular, the proposed analysis of MOCs which capitalizes on the a-structure of relational nouns provided a key to explaining various syntactic and semantic peculiarities of MOCs which are not easily explained in analyses which do not take into account the a-structure of relational nouns involved in MOCs, such as Possessor Raising Analyses.

Various properties of Inalienable Possessor Constructions discussed and explained in this paper also suggest that the arguments of relational nouns are obligatorily realized just like those of verbs or complex event nouns that Grimshaw (1990) discussed, and that much of the apparent optionality is the result of the ambiguity of relational nouns between argument-taking and non-argument-taking interpretation, coupled with the availability of null pronoun possessors of relational nouns. Given that relational nouns, which lack the event (Ev) argument, have a-structure, Grimshaw's (1990) claim that the ability of a noun to take a syntactic argument is related to whether it has [Ev] argument or not is untenable. Instead, there are two types of argument-taking nouns, i.e., complex event nouns and relational nouns, and nouns with a-structure are generally ambiguous between argument-taking and non-argument-taking interpretation.

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Department of English Language and Literature  
Myong Ji University  
50-3, Namkajwa-dong, Seodaemun-ku,  
Seoul, 120-728,  
Korea