

# An Empirical Study of Korean Adjectival Predicates that License Double Nominative Constructions\*

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Despite the numerous studies proposed to explain double nominative constructions (DNCs) in Korean, empirical approaches to the predicate types that license their essential complements for conversion into nominatives have attracted little attention from scholars. However, given that, from syntactic and semantic viewpoints, the DNCs result from diverse and complex linguistic realities, a rigorous examination of the predicate types is required before attempting to elaborate theoretical assumptions further. Based on a large database of 6,600 Korean adjectives, this study distinguishes two types of DNCs: Predicate-Dependent DNCs (PD-DNCs), where the two nominatives are essential arguments of the adjectival predicates; and Discourse-Dependent DNCs (DD-DNCs), where one of the two nominatives is not related to the argument structures, but either is generated by the split of one argument or is newly introduced at the discourse level. About 30% of the 6,600 adjectives license PD-DNCs. On this basis, the current study provides two findings on PD-DNCs. First, adjectives licensing PD-DNCs are classified into five syntactic and semantic sub-types, the predominant complement type that is convertible into a nominative being that in -EY. Second, the adjectives licensing their complements for conversion into nominatives mostly show certain peculiar syntactic properties: most of them permit two syntactic constructions in a subject-complement crossing (SCC) relation like 'N1-NOM N2-POS ADJ-DEC = N2-NOM N1-POS ADJ-DEC'. With regard to DD-DNCs, in this study the DNCs are divided into four sub-types, which exhibit various semantic and syntactic properties that are distinct from those of PD-DNCs.

Key words: adjective, complement type, conversion, discourse effect, double nominative

## 1. Introduction

This article offers a new account of double nominative construction (DNC)<sup>1</sup> phenomena in Korean, based on the examination of a large-scale database of adjectival predicates that occur in the following sentence type:

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<sup>1</sup> The terminology designating double nominative construction has undergone a change in Korean linguistics literature. At the beginning, it was often called DOUBLE SUBJECT CONSTRUCTION, which emphasized the aspect of the odd syntactic structure. As scholars started to doubt whether one really deals with two subjects, terminology such as DOUBLE NOMINATIVE CONSTRUCTION appeared. Still, the question about the syntactic nature of nominative-marked noun phrases has been raised, because semantic and syntactic relations among the noun phrases followed

(1) *N1-NOM N2-NOM ADJ-DEC*<sup>2</sup>

In basic constructions, Korean adjectives occur as predicative elements without requiring a copula such as *be* in English. Since arguments are essentially accompanied by case-marking postpositions, canonical sentence structures in Korean can be schematized roughly as follows:

(2) *N1-NOM N2-POS N3-POS ... Nn-POS (V+ADJ)-DEC*

Among diverse syntactic constructions representable by (2), (1) raises a particular issue, since this type of sentence is observed uncommonly frequently, and in addition, the adjectival predicates are extremely heterogeneous. The following examples, which each consist of two nominatives and an adjectival predicate, illustrate this complex situation:

- (3) a. *Ku kakey-ka celmun salamtul-i katukha-ta*  
 that store-NOM young people-NOM full/filling-DEC  
 ‘Lit.: (As for) that store, young people are filling = **That store** is full of **young people**’
- b. *Ku san-i sonamuswuph-i acwu wulchangha-ta*  
 that hill-NOM pine wood-NOM very dense-DEC  
 ‘Lit.: (As for) that hill, pine wood is very dense = **The pine wood** is very dense on **that hill**’
- c. *Minwu-ka ina-uy cwukum-i nemwu sulphu-ess-ta*  
 Minu-NOM [Ina-GEN death]-NOM very sorrowful-PAS-DEC  
 ‘Lit.: (For) Minu, Ina’s death was very sorrowful = **Ina’s death** was very sorrowful for **Minu**’
- d. *Minwu-ka ina-uy kulen mosup-i cengmal salangsulep-ess-ta*  
 Minu-NOM [Ina-GEN the posture]-NOM really lovely-PAS-DEC  
 ‘Lit.: (For) Minu, Ina’s posture was really lovely = **Ina’s posture** was really lovely from Minu’s point of view’

by the same type of case markers are heterogeneous in diverse examples. In this regard, the more prudent term, DOUBLE N-KA CONSTRUCTION (i.e. *KA* stands for the lexical form of nominative), has been suggested, in order not to assign a pre-acquired syntactic notion to these repeated noun phrases. However, ‘double N-KA’ is not a widely used term in Korean linguistics in comparison with ‘double nominative’. Consequently, the latter is adopted in the current study.

<sup>2</sup> Abbreviations used in this paper are: ACC: Accusative; ADJ: Adjective; ADV: Adverb; CLA: Classifier; CON: Conjunctive; DEC: Declarative; E: Empty Sequence; GEN: Genitive; HON: Honorification; KI: Nominal Suffix *-KI*, roughly equivalent to the nominalization suffix such as *-ing* (e.g. *solve* → *solv-ing*); LOC: Locative; NOM: Nominative (i.e. *-ka* or *-i*); NUM: Numeral; N1: First occurring Noun phrase; N2: Second occurring Noun phrase; N3: Third occurring Noun phrase; Nn: Nth occurring Noun phrase; N-EY: Complement in *-EY* (i.e. *-ey* or *eykey*, roughly equivalent to the preposition *to*, *at*, *in*, or *for*); N-KA: Complement in *-KA* (i.e. *-ka* or *-i*, roughly equivalent to the preposition *in* or *at*); N-WA: Complement in *-WA* (i.e. *-wa* or *kwa*, roughly equivalent to the preposition *with* or *to*); PAS: Past tense; POS: Postposition; PRE: Present tense; PRED: Predicate; SFX: Suffix; V: Verb; Vn: Nominalization of a verb.

- e. *Minwu-ka khawunseylle il-i kacang almac-ta*  
 Minu-NOM counselor job-NOM most suitable-DEC  
 ‘Lit.: (For) Minu, the job of counselor is most suitable = **The job of counselor** is most suitable for **Minu**’
- f. *Ku mwuncey-ka [10 pwunan-ey phwul-ki]-ka elyep-ta*  
 that problem-NOM [10 minute-in solve-SFX]-NOM hard-DEC  
 ‘Lit.: (As for) that problem, to solve it in 10 minutes is hard = **That problem** is hard **to solve** in 10 minutes’
- g. *Ina-ka caki son-i ohilye aphu-ess-ta*  
 Ina-NOM [her hands]-NOM rather sore-PAS-DEC  
 ‘Lit.: (As for) Ina, rather her hands were sore = **Ina** felt pain in **her hands**’
- h. *Haksayng-i sey myeng-i ttokttokha-ta*  
 student-NOM three CLA-NOM smart-DEC  
 ‘Lit.: (As for) students, three are smart = **Three students** are smart’
- i. *Minwu-ka cip-i kunsaha-ta*  
 Minu-NOM house-NOM great-DEC  
 ‘Lit.: (As for) Minu, the house is great = **Minu’s house** is great’
- j. *Ku cha-ka eyncin-i thunthunha-ta*  
 that car-NOM engine-NOM powerful-DEC  
 ‘Lit.: (As for) that car, the engine is powerful = **The engine** of **that car** is powerful’
- k. *Minwu-ka tongsayng-i pwucilenha-ta*  
 Minu-NOM brother-NOM diligent-DEC  
 ‘Lit.: (As for) Minu, his brother is diligent = **Minu’s brother** is diligent’
- l. *Ku os-i somay-ka nemwu kil-ta*  
 that shirt-NOM sleeve-NOM too long-DEC  
 ‘Lit.: (As for) that shirt, the sleeves are too long = **That shirt** has long **sleeves**’
- m. *Ku thong-i pwuphi-ka nemwu cak-ta*  
 that bucket-NOM volume-NOM too small-DEC  
 ‘Lit.: (As for) that bucket, the volume is too small = **That bucket** is too small in **volume**’
- n. *Ku yeca-ka somwun-i acwu nappu-ta*  
 that girl-NOM reputation-NOM very bad-DEC  
 ‘Lit.: (As for) that girl, the reputation is very bad = **That girl** has a very bad **reputation**’
- o. *Cinanhay-ka minwu-ka manhi aphu-ess-ciman, . . .*  
 last year-NOM Minu-NOM seriously sick-PAS-Although  
 ‘Lit.: Although, (as for) last year, Minu was seriously sick, = Although **Minu** was seriously sick **last year, . . .**’
- p. *Sayngsenhoy-ka kwange-ka ceyil kosoha-ta*  
 raw fish-NOM flatfish-NOM most tasty-DEC  
 ‘Lit.: (As for) raw fish, flatfish is most tasty = As for **raw fish**, **flatfish** is most tasty’

As seen here, the syntactic and semantic functions of the nominatives in DNCs are not identical to one another. This observation makes persuasive the widely held assumption that this diversity results from the fact that not all DNCs are canonical structures for adjectival predicates. I agree with this commonly accepted assertion. The essential problem, however, is to know *how* to distinguish the canonical structures from the non-canonical ones, and *what* is the most crucial factor for this distinction. Nevertheless, most previous works have converged on the explanation of *why* DNCs are different from each other on the basis of their own theoretical backgrounds. As a result, a limited number of selected examples have been examined to support the presupposed hypotheses.

I claim that, before attempting to explain why these complex DNC phenomena occur, all adjectival predicates licensing a DNC should be empirically examined. I examined in this study a database of 6,600 adjectival constructions proposed in Nam (1996, 2007), to obtain a set of adjectives licensing their complements for conversion into nominatives. I analyzed what types of complements required by adjectival predicates are sensitive to the conversion into nominatives. In this process, I distinguished two types of DNCs in Korean: the DNCs where the two nominatives are essential arguments of the adjectival predicates (named *PREDICATE-DEPENDENT* DNCs (PD-DNCs)), and the DNCs where one of the two nominatives is not related to the argument structure but either is generated by the split of one argument or is newly introduced at the discourse level (named *DISCOURSE-DEPENDENT* DNCs (DD-DNCs)). Once the PD-DNC types are determined, the DD-DNCs are discussed on the basis of the diverse relations between two nominatives. Among the above examples, the first seven sentences (i.e. (3a)–(3g)) illustrate various PD-DNCs, whereas the second nine sentences (i.e. (3h)–(3p)) show DD-DNC types. In the following sections, I shall discuss each of these DNC types.

Notice that DNCs, syntactically uncomfortable, have been considered one of the most problematic issues among Korean scholars (Choi 1937; Ko 1999; Lee 2002; D.-H. Lim 1997; H.-B. Lim 1974; Nam 1986; Park 2001; Seo 1996; Song 2009, among others). The most vigorous discussion on DNCs has focused on determining the *true* subject from the two identical forms in DNCs. In this regard, logical relation types between two nominatives are analyzed from semantic and discourse viewpoints and justified by syntactic criteria based on a theoretical foundation. Two assumptions are worthy of note. The *ONE-SUBJECT ASSUMPTION*, supported by M.-S. Kim (1971), Y.-H. Kim (1978), Lim (1997), Ko (1999), Ahn (2001), Park (2001), and Lee (2002), among others, postulates the existence of only one subject in DNCs, irrespective of the DNC type, and therefore, the other nominative form must be labeled in some way such as a newly added topic or a converted complement. Hence, one of the predominant concerns of the scholars has been to determine which one of them is the subject. The second assumption, the *TWO-SUBJECT ASSUMPTION*, held by Lim (1974), Choi (2002), K.-H. Kim (2003), Mok (2005), and Yoon (2007), among others, postulates that the two nominatives in DNCs are both subjects of the sentence, even though the nature of these two subjects or the scope of the predicates may be assumed differently according to their theoretical background. However, since there are diverse types of DNCs in Korean, building a unique theoretical hypothesis is not recommended. Moreover, DNCs are observed with adjectival predicates more frequently than with verbal ones. Thus, some scholars such as Ko (2001) or Song (2009) insisted that it would be indispensable to examine predicate types, notably adjectives, which license DNCs. None the less, no relevant studies on a sizeable number of adjectives have been proposed and only a few stereotypical adjectives have been considered in relation to certain problematic examples of double nominatives. In this study, based on the database of 6,600 adjectives, I advocate

two distinct DNC types which should be approached in a different manner regarding canonical structure issues such as the true subject determination. As a matter of fact, before I attempt to elaborate theoretical assumptions, a rigorous examination of the predicate types licensing PD-DNCs is required.

This article is organized as follows. Section 2 discusses previous works on DNCs in the Korean literature; §3 introduces five sub-types of the adjectival predicates licensing PD-DNCs, whereas §4 deals with four sub-types of DD-DNCs; and §5 presents the implications of the current study based on these empirical results.

## 2. Previous works on DNCs

The most active issues regarding DNCs in Korean have converged on the problem of recognizing the TRUE subject between the two nominatives. More precisely, they can be summarized as determining diverse logical relations between two nominatives from semantic and discourse viewpoints, and using a certain theoretical foundation to identify and justify the syntactic properties of the two nominatives.

Attempts to generalize semantic natures have often been blended with discourse notions such as the topic or focus of the utterance (Choi 2002; Doo 2010; Lim 1974; Park 2001). Semantic relations between two nominatives have been vigorously discussed for determining the subject of the sentence. According to Choi (2002), when the first occurrence of two nominatives in a CLASS-MEMBER relation does not show semantic dependency with the predicate, it only emphasizes a ‘class’ that a ‘member’ occurring in the second noun position belongs to; thus, the second noun should be analyzed as the subject and the first one as the topic (e.g. *Kyeycel-un kaul-i coh-ta* ‘(As for) season, autumn is good = Autumn is the best season’). The most frequently discussed semantic relation types are related to the genitive phrases as in *N1-uy N2* ‘N2 of N1’, which displays various logical relations between N1 and N2. For instance, in Choi (2002), POSSESSION and PART-WHOLE relations have been discussed, both of which are described as a BIG-SMALL relation in Song (2009) (e.g. *Chelswu-ka cha-ka mesci-ta* ‘(As for) Chulsoo, the car is stylish=Chulsoo’s car is stylish’, and *Khokkili-nun kho-ka kil-ta* ‘(As for) elephants, the trunk is long=The trunk of elephants is long’). In this regard, when two nominatives are analyzed as in this BIG-SMALL relation, the identification of the subject becomes a more complex problem. Choi (2002) and Mok (2005) have proposed N1 as the subject, whereas Ahn (2001) has claimed that N2 should be the subject. In contrast, Choi (2008) has proposed an analysis of N1 and N2 as double subjects.

In fact, regarding the identification of the subject, the previous works can be divided into two distinct approaches: one is based on the assumption that there is only one subject in DNCs, the non-subject being a converted complement or a topic word obtained by diverse channels (i.e. the One-Subject Assumption); and the other holds the assumption that there are two subjects in DNCs (i.e. the Two-Subject Assumption). When the latter assumption is supported, two viewpoints can be distinguished: some scholars claim that, in Korean, there are certain constructions composed of two syntactic subjects, while others assume that the first nominative is the subject of the so-called PREDICATIVE CLAUSE, which is, in turn, made of an inner subject and a predicate. The first viewpoint is the DOUBLE SUBJECT ASSUMPTION, supported by M.-S. Kim (1971), Y.-H. Kim (1978), Lee (2002),

and Yoon (2007). The second one is the PREDICATIVE CLAUSE ASSUMPTION, held by Lim (1997), Ko (1999), Ahn (2001), and Park (2001). Here, the main issue is justifying their assumptions by using certain syntactic tests.

Among the prime syntactic evidence used to support these assumptions, the first piece of evidence is related to the presence of the HONORIFICATION SUFFIX *-SI*, which is known as being in agreement with the subject. Let us compare the following sentences:

- (4) a. *Ku sonyen-i cungcopwu-ka hwullyungha-si-ta*  
           that boy-NOM great-grand-father-NOM admirable-HON-DEC  
           ‘Lit.: (As for) that boy, the great-grand-father is admirable = That boy’s great-grand-father is admirable’  
       b. *Kim sensayngnim-i aywankyen-i sanap-(E + \*si)-ta*  
           Kim Mr.-NOM pet dog-NOM fierce-(E + \*HON)-DEC  
           ‘Lit.: (As for) Mr. Kim, the pet dog is fierce = Mr. Kim’s pet dog is fierce’

The presence of the honorification marker *-SI* in (4a) reveals that the second noun *cungcopwu* ‘great-grand-father’ is the subject, not the first one *ku sonyen* ‘that boy’. For the same reason, in (4b), this honorification marker cannot be attached, because the second noun *aywankyen* ‘pet dog’ is semantically inappropriate for being assigned with a honorification marker. Agreement with the honorification marker may be a criterion to determine the subject, and according to this criterion, N2 turns out to be the subject for these DNCs, not N1.

The second piece of evidence is a co-referential relation between a REFLEXIVE PRONOUN *CAKI/CASIN* and the subject. If one of the two nominatives is in co-referential relation with *CAKI/CASIN*, that is the subject, not the other one. Consider:

- (5) [*Minwu-uy sengkong*]-i ina-ka<sup>3</sup> cengmal calangsulep-ese, ...  
       [Minu-GEN success]-NOM Ina-NOM really proud/prideful-CON  
       ‘Lit.: As Minu’s success was really prideful for Ina, ... = As Ina was really proud of Minu’s success ...’

In general, if two nouns are engaged in a co-referential relation, usually the non-subject is transformed into a reflexive pronoun *CAKI/CASIN*. However, for (6a), only (6c) is accepted, not (6b):

- (6) a. [*Minwu<sub>i</sub>-uy sengkong*]-i minwu<sub>i</sub>-ka cengmal calangsulep-ese, ...  
       [Minu<sub>i</sub>-GEN success]-NOM Minu<sub>i</sub>-NOM really proud/prideful-CON  
       ‘Lit.: As Minu’s success was really prideful for Minu, ... = As Minu was really proud of his success, ...’

<sup>3</sup> For this argument, semantically expressing a psychological experiencer, a preferred form of the case marker is *-NUN*, which is often considered a topic marker. In this study, in order not to enter into another discussion regarding this issue, I do not replace the nominative marker by a topic marker, even though, in certain contexts, the former seems less natural than the latter.



- b. \*[*Minwu<sub>i</sub>-uy sengkong*]-i *casin<sub>i</sub>-i* *cengmal calangsulep-ese*, ...  
 [Minu<sub>i</sub>-GEN success]-NOM **HIMSELF<sub>i</sub>**-NOM really proud/prideful-CON  
 ‘Lit.: As Minu’s success was really prideful for himself = As Minu was really proud of his success, ...’
- c. [*Casin<sub>i</sub>-uy sengkong*]-i *minwu<sub>i</sub>-ka(nun)* *cengmal calangsulep-ese*, ...  
 [**HIMSELF<sub>i</sub>**-GEN success]-NOM Minu<sub>i</sub>-NOM really proud/prideful-CON  
 ‘Lit.: As his success was really prideful for Minu = As Minu was really proud of his success, ...’

When the two nominatives in (6a) are co-referential, regardless of the order of occurrence of these two, (6b) is not allowed (i.e. \**casin<sub>i</sub>-i [minwu<sub>i</sub>-uy sengkong]-i cengmal calangsulep-ese*, ... ‘As Minu was really proud of his success, ...’). In contrast, when the two nominatives are in reverse order, (6c) appears even more natural (i.e. *Minwu<sub>i</sub>-ka [casin<sub>i</sub>-uy sengkong]-i cengmal calangsulep-ese*, ... ‘As Minu was really proud of his success, ...’), which reveals that only one of these two nominatives should be analyzed as the subject.

The third piece of evidence is obtained by the attachment of the PLURAL MARKER *-TUL* to other elements of the sentence. In Korean, when the subject is a plural noun, this marker can be attached to the other elements as well. Let us examine the following sentences:

- (7) a. *Sillyek-i ku haksayng-i hwaksilhi ttwuyena-ta*  
 ability-NOM that student-NOM clearly excellent-DEC  
 ‘Lit.: (As for) the ability, that student is clearly excellent = That student’s ability is clearly excellent’
- b. *Sillyek-i ku haksayng-tul-i hwaksilhi-tul ttwuyena-ta*  
 ability-NOM that student-**Plural**-NOM clearly-**Plural** excellent-DEC  
 ‘Lit.: (As for) the ability, those students are clearly excellent = Those students’ ability is clearly excellent’

When the second nominative in (7b) appears with a plural marker, the adverb *hwaksilhi* ‘clearly’ can receive the same marker, which reveals that the second one is the subject of the sentence.

However, as various types of DNCs cannot be defined solely by means of these properties, this evidence cannot serve as a sufficient condition in determining the subject. Therefore, in addition to the above evidence, some more elaborated proofs have been proposed by Lim (1997), Choi (2002), Yoon (2007), and Song (2009). Nevertheless, if some of them work for some types of DNCs, others do not. In this regard, instead of relying on the mentioned syntactic tests in detecting the subject, predicate types and their argument structures should be examined in order to determine DNC types as well as the subject.

Thus, some scholars such as Ko (2001), Choi (2002), K.-H. Kim (2003), and Song (2009) have claimed that DNC types should be described in consideration of the given predicate types, notably adjectives. However, as mentioned above, no relevant studies on a sizeable number of adjectives have been conducted; only a few stereotypical adjectives have been treated. In fact, the question of which one of the two nominatives is the subject should be integrated into the question of what

the argument structures of the given predicates are, and therefore an empirical approach to the classification of DNCs should be executed. I shall argue in the following section how DNCs should be classified in relation to adjectival predicates after examining the types of adjectival predicates and their argument structures.

### 3. Adjectives licensing PD-DNCs

#### 3.1 Large-scale database of adjectives

As most previous studies that have attempted to determine DNC types have been based on the syntactic and semantic observation of a limited number of examples, an empirically serious examination of predicate types appearing in DNCs is strongly recommended. Since double nominatives are observed more frequently with adjectival predicates, as mentioned earlier, this study examines elementary structures comprised of adjectival predicates.

Among the important studies on adjectival constructions in Korean, Yoo (1998) described the semantic and syntactic properties of about 2,400 adjectives selected from a corpus. J.-N. Kim (1998) also proposed a semantic classification of adjectives, which covers about 800 entries. Nam (1996, 2007) proposed a syntactic classification of about 6,600 adjectival constructions which were obtained from the entries of current dictionaries. As the coverage of Korean adjectives proposed in Nam (1996) is richer and more complex than that of others, this database of 6,600 adjectives is used as groundwork for the study.

The complement types defined in the classification of the adjectival constructions are individually tested to determine whether, under certain circumstances, they can be converted into nominatives. Adjectives acting as a predicative element in a simple sentence require their own subject types and complement types. As discussed earlier, adjectival predicates in Korean behave like verbal ones; they do not require any copula such as *be* in English, but are directly connected with certain inflectional suffixes like verbal roots. Thus, the basic structure of adjectival predicates looks identical to that of verbal ones, as shown in the following schema:

- (8) *N-NOM (V-Inflectional Suffix + ADJ-Inflectional Suffix)*  
 ‘N (V + be ADJ)’

The following examples illustrate the verbal and adjectival constructions defined in (8):

- (9) a. *Ku-ka ca-nta*  
           he-NOM **sleep**-Verbal Inflectional Suffix: DEC  
           ‘He **runs**’  
       b. *Ku-ka sengsilha-ta*  
           he-NOM **be serious**-Adjectival Inflectional Suffix: DEC  
           ‘He **is serious**’

Due to this particularity of Korean adjectives, some scholars do not admit the category named ADJECTIVE in Korean. Even though verbs and adjectives are similar to each other in this regard, there



nevertheless exist several morpho-syntactic and semantic differences between these two groups. Syntactically, first, one can insert some ADVERBS OF DEGREE such as *acwu* ‘very’ or *taytanhi* ‘very’ for the predicate in (9b), whereas it is not acceptable for (9a); second, some ADVERBIAL FORMS can be derived from the predicate in (9b) such as *sensilha-key* ‘seriously’ or *sensilh-i* ‘seriously’, which is not allowed for in (9a); third, QUESTION TYPES associable to (9a) and (9b) are not the same, and thus a question such as *ku-ka mwues-ul ha-ni?* ‘What does he do?’ can be assigned to (9a), while a HOW-question such as *ku-ka etteha-ni?* ‘How is he?’ should be assigned to (9b); and fourth, the predicate in (9a) is followed by *-nta* as a PRESENT DECLARATIVE INFLECTIONAL SUFFIX, whereas that in (9b) cannot be assigned with this form, but can with *-ta*. These differences emerge systematically in the pair of two predicate groups such as in (9a) and (9b). In addition, from the semantic viewpoint, two distinct groups exist: one expressing some ACTIONS or EVENTS, such as the predicate in (9a); and the other representing some STATES or QUALITIES, such as that in (9b), even though it is not always unanimously admissible. In this regard, it might be more practical and meaningful to distinguish between these two groups rather than placing them in the one category, whatever their legal titles are. In current Korean grammars and dictionaries, they are distinguished from each other as well, but the distinctions are often executed according to some implicit semantic criteria. In this study, I adopt the list of adjectives established on the basis of several criteria by Nam (1996) without entering into a detailed discussion on this issue.

In the syntactic study of adjectival constructions proposed by Nam (1996),<sup>4</sup> the maximum number of essential arguments licensed by adjectival predicates does not exceed two, except for some frozen structures. In this case, the adjectival constructions can be more precisely schematized as follows:

$$(10) \quad N1-NOM \quad (N2-POS + E) \quad ADJ-DEC$$

where *E*, standing for an empty sequence, represents the fact that *N2-POS* is absent. Different from verbs, adjectives, never being a transitive predicate, cannot take an accusative argument, and thus the total number of arguments is smaller than that in transitive verbal constructions. The maximum number of essential arguments in Korean verbal constructions has been reported by Kim & Nam (2011) as three, whereas, in French verbal constructions, the maximum number of arguments is four, except in some frozen verbal expressions (Gross 1981; Leclère 2002).

### 3.2 Adjectives licensing PD-DNCs

On the basis of the examination of the database of 6,600 adjectives, about 3,000 are discerned as requiring a complement: in other words, as binary-argument predicates. The remaining 3,600 adjectives are inherently unitary-argument predicates. When the former adjectives occur in DNCs, the DNCs may be PD-DNCs where one of the two nominatives is converted from the complement

<sup>4</sup> A methodology known as the Lexicon-Grammar framework (Boons et al. 1976; Giry-Schneider 1987; Gross 1975, 1981; Guillet & Leclère 1992) was adopted in this study.

required by the adjectives.<sup>5</sup> In contrast, when the latter adjectives appear in DNCs, there is little chance that the DNCs are PD-DNCs, since there is no complement convertible into a nominative. One exception is observed with a set of adjectives that shows a RAISING-SUBJECT property such as *swip*- ‘easy’ or *elyep*- ‘difficult’; these adjectives, which require a clausal subject consisting of a transitive verb and an accusative complement, license this embedded accusative complement for conversion into a nominative (i.e. like the adjective *easy* in English that occurs in the pair ‘*To solve the problem is easy* = *The problem is easy to solve*’).

Among the binary-argument adjectives, this study discovered that about 50% (i.e. 1,500 out of 3,000 adjectives) license their complements for conversion into nominatives, and about 7% (i.e. 200 out of 3,000 adjectives) inherently require nominative-like complements (i.e. N-KA). These 1,500 adjectives are all characterized by a complement in *-EY*, this type of complement showing diverse functions from syntactic and semantic viewpoints; they are classified in this study as SCENE-LOCATIVE, PSYCHO-EVALUATIVE, and CRITERIA complements (i.e. *N2-EY* roughly equivalent to ‘at N2’, ‘for N2’, or ‘to N2’). Meanwhile, among the unitary-argument adjectives, about 9% (i.e. 320 out of 3,600 adjectives) that show a raising-subject property are discerned as licensing PD-DNCs. Table 1 shows the types and numbers of the adjectives licensing PD-DNCs:

**Table 1:** Types and numbers of the adjectives licensing PD-DNCs

No.	Basic construction	Semantic property of ADJ	ADJ example	Quantity
1	<i>N1-NOM N2-EY ADJ-DEC</i>	Scenic occupation of N1 at the location N2	<i>katukha</i> - ‘full’	640
2	<i>N1-NOM N2-EY ADJ-DEC</i>	Psycho-evaluation of N1 by the human N2	<i>sulphu</i> - ‘sorrowful’	510
3	<i>N1-NOM N2-EY ADJ-DEC</i>	Judgment of N1 on the basis of the criterion N2	<i>almac</i> - ‘suitable’	340
4	<i>N1-NOM N2-KA ADJ-DEC</i>	Physical symptoms of the body part N2 felt by the human N1	<i>kalyep</i> - ‘itchy’	200
5	<i>[N2-ACC Vn]I-NOM ADJ-DEC</i>	Evaluation of the entity N2 in relation to the action (Vn)1	<i>swup</i> - ‘easy’	320
	Total			2,010

As previously mentioned, the first three constructions consist of a complement in *-EY* that may be converted into a nominative, whereas the syntactic structure of the fourth one is inherently a DNC (i.e. *KA* in ‘N2-KA’ is equivalent to the lexical notation of a *NOM* in ‘N2-NOM’). In the last construction, an accusative complement (N2-ACC) in the clausal subject may be converted into a nominative, which leads to a DNC of the type ‘N2-NOM [Vn]1-NOM ADJ-DEC’. These adjectival constructions are examined in the following sections.

<sup>5</sup> The DNCs may also be DD-DNCs where, the complement being omitted, one of the two nominatives is split from the other nominative (i.e. the subject), or newly added, without being related to a complement. In this study, this complex type of operation is not considered; therefore, for these adjectives, only the nominatives convertible from complements will be accounted for.

### 3.3 Complement types convertible into nominatives

Some types of complements in *-EY* are susceptible to conversion into nominatives. They are fundamentally non-dative complements in *-EY* among all the complement types in *-EY*. They are sub-divided into three types: scene-locative, psycho-evaluative, and criteria complements.

#### 3.3.1 Scene-locative complements in *-EY*

The adjectives such as *katukha-* ‘filling/filled’ or *wulchangha-* ‘dense’ permit a DNC as follows:

- (11) a. *Twismatang-i cikum aitul-i katukha-ta*  
 backyard-NOM now children-NOM filling/filled-DEC  
 ‘Lit.: As for the backyard, children are filling now = The backyard is now full of children’
- b. *Ku san-i sonamwuswuph-i acwu wulchangha-ta*  
 that hill-NOM pine wood-NOM very dense-DEC  
 ‘Lit.: As for that hill, pine wood is very dense = The pine wood is very dense on that hill’

As a matter of fact, the first occurrences of nominatives in the above examples are, in the following sentences, converted from the complements in *-EY*:

- (12) a. *Aitul-i cikum twismatang-ey katukha-ta*  
 children-NOM now backyard-EY filling/filled-DEC  
 ‘Lit.: Children are filling now in the backyard = The backyard is now full of children’
- b. *Sonamwuswuph-i ku san-ey acwu wulchangha-ta*  
 pine woods-NOM that hill-EY very dense-DEC  
 ‘The pine woods are very dense on that hill’

The nouns *twismatang* ‘backyard’ and *ku san* ‘that hill’, being scene-locative complements in (12a) and (12b), appear as the first nominatives in (11a) and (11b), respectively. What is peculiar in these sentences is that those nouns can appear in the position of a subject in an equivalent, but syntactically distinct, construction as shown in:

- (13) a. *Twismatang-i cikum aitul-lo katukha-ta*  
 backyard-NOM now children-LO filling/filled-DEC  
 ‘The backyard is now filled with children = The backyard is now full of children’
- b. *Ku san-i sonamwuswuph-ulo acwu wulchangha-ta*  
 that hill-NOM pine woods-LO very dense-DEC  
 ‘That hill is very dense with pine woods’

In (13), nouns indicating a location appear as the subject and the entities filling this location show up in the position of complement in *-LO*. The pairs (12a)–(13a) and (12b)–(13b) illustrate a subject–complement crossing (SCC) relation. This relation can be schematized as follows:

- (14) a. *N1 (Entity)-NOM N2 (Location)-EY ADJ-DEC* ‘N1 (Entity) is Adj in N2 (Location)’  
 = b. *N2 (Location)-NOM N1 (Entity)-LO ADJ-DEC* ‘N2 (Location) is Adj with N1 (Entity)’

The scene-locative complement in *-EY* in (14a) shows up as the subject of the same adjectival predicate in (14b), while the subject in (14a) appears as the complement in *-LO* in (14b). Similar phenomena were first observed by Boons et al. (1976) for French verbs, and by Salkoff (1983), Levin (1993), and Huddleston & Pullum (2002) for English verbs. Hong (1987) discussed the same type of relation in Korean verbs and Nam (1996) discerned the adjectives in these relations. The following examples illustrate these phenomena in French, English, and Korean verbal constructions, respectively:

- (15) a. *Des étoiles étincellent dans le ciel* (Boons et al. 1976:175 for French)  
 = b. *Le ciel étincelle d'étoiles*
- (16) a. *Bees are swarming in the garden* (Salkoff 1983:288 for English)  
 = b. *The garden is swarming with bees*
- (17) a. *Salamtul-i cangthe-ey pwumpi-ess-ta* (Hong 1987:174–175 for Korean)  
 crowds-NOM market place-EY bustle-PAS-DEC  
 ‘Crowds bustled through the market place’  
 = b. *Cangthe-ka salamtul-lo pwumpi-ess-ta*  
 market place-NOM crowds-LO bustle-PAS-DEC  
 ‘The market place bustled with people’

In brief, the adjectives *katukha-* ‘filling/filled’ and *wulchangha-* ‘dense’, appearing in a DNC, authorize two canonical constructions: one with a complement in *-EY* and the other with a complement in *-LO*. About 640 adjectives are discerned as satisfying an SCC relation of (14) and licensing the complement in *-EY* for conversion into a nominative such as the adjectives discussed above.

### 3.3.2 Psycho-evaluative complements in *-EY*

Another type of complement in *-EY* may be converted into a nominative. The adjectives such as *sulphu-* ‘sorrowful’ or *salangsulep-* ‘lovely’, which essentially require a complement in *-EY*, occur in DNCs as follows:

- (18) a. *Minwu-ka [ina-uy cwukum]-i nemwu sulphu-ess-ta*  
 Minu-NOM [Ina-GEN death]-NOM very sorrowful-PAS-DEC  
 ‘Lit.: (For) Minu, Ina’s death was very sorrowful’  
 b. *Minwu-ka [ina-uy kulen mosup]-i cengmal salangsulep-ess-ta*  
 Minu-NOM [Ina-GEN the posture]-NOM really lovely-PAS-DEC  
 ‘Lit.: (For) Minu, Ina’s posture was really lovely’

From semantic and syntactic standpoints, these adjectives show some similarities. They both express certain subjective sentiments about entities or events, like psychological experience in (18a) and subjective evaluation in (18b). Further, they both appear in a DNC in which N1 is filled with a human noun and N2 with an entity or event noun, as schematized in the following structure:<sup>6</sup>

- (19) *N1:Human-NOM N2:Entity/Event-NOM ADJ-DEC*

Here, N1 in (19) corresponds to the complement in *-EY*,<sup>7</sup> as illustrated in the following examples that are equivalent to (18a) and (18b), respectively:

- (20) a. [*Ina-uy cwukum*]-i *minwu-eykey nemwu sulphu-ess-ta*  
 [Ina-GEN death]-NOM Minu-**EY** very sorrowful-PAS-DEC  
 ‘Ina’s death was very sorrowful for Minu’  
 b. [*Ina-uy kulen mosup*]-i *minwu-eykey cengmal salangsulep-ess-ta*  
 [Ina-GEN the posture]-NOM Minu-**EY** really lovely-PAS-DEC  
 ‘Lit.: Ina’s posture was really lovely for Minu = Ina’s posture was really lovely from Minu’s point of view’

Regarding (20a), another type of SCC relation is observed:

- (21) *Minwu-ka [ina-uy cwukum]-ulo nemu sulphu-ess-ta*  
 Minu-NOM [Ina-GEN death]-**LO** very sorrowful-PAS-DEC  
 ‘Minu was very sorrowful at Ina’s death’

which results in a triple like (22a–c) that represents the relation (18a), (20a), (21):

- (22) a. *N1-NOM N2-NOM ADJ-DEC* ‘= (For) N1, N2 is Adj’  
 b. *N2-NOM N1-EY ADJ-DEC* ‘= N2 is Adj for (from the viewpoint of) N1’  
 c. *N1-NOM N2-LO ADJ-DEC* ‘= N1 is Adj because of N2’

The constructions (22b) and (22c) show a similar relation to that discussed with scene-locative complements in the above sub-section: the subject in the construction of the complement in *-EY* appears as the complement in *-LO*, while the complement in *-EY* appears as the subject in the other construction.

Meanwhile, this relation is not authorized for the construction of the adjective *salangsulep*-‘lovely’. Let us compare (20b) with the following sentence:

<sup>6</sup> As mentioned in fn. 3, when a human noun appearing in N1 is followed by a topic marker *-NUN*, the DNC becomes more natural. However, as the structure shown in (19) is totally legitimate as well, this study remains with double nominatives without entering into another discussion concerning the topic marker.

<sup>7</sup> The canonical form *-EY* stands for *-ey* and *-eykey*, the latter attaching to a human noun.

- (23) \**Minwu-ka* [*ina-uy* *kulen mosup*]-*ulo* *cengmal* *salangsulep-ess-ta*  
 Minu-NOM [Ina-GEN the posture]-LO really lovely-PAS-DEC  
 ‘Lit.: Minu was really lovely at Ina’s posture’

As a matter of fact, the adjectives such as *sulphu-* ‘sorrowful’ have a syntactic particularity in predication, such that they can function perfectly as double predicates for both N1 and N2 in (22), whereas the adjectives such as *salangsulep-* ‘lovely’, only being predicates for N2, cannot function as predicates for N1 in (22). Thus, regarding the former, sub-structures of (22a) in which only either N1 or N2 appears as a subject are perfectly authorized, while regarding the latter, a sub-structure of (22a) in which only N1 appears as a subject is not accepted (unless accepted as a non-equivalent sentence), as illustrated in (24) and (25), respectively:

- (24) a. *Minwu-ka nemwu sulphu-ess-ta* ‘Minu was very sorrowful’  
 b. [*Ina-uy cwukum*]-*i nemwu sulphu-ess-ta* ‘Ina’s death was very sorrowful’
- (25) ≠ a. *Minwu-ka cengmal salangsulep-ess-ta* ‘Minu was really lovely’  
 b. [*Ina-uy kulen mosup*]-*i cengmal salangsulep-ess-ta* ‘Ina’s posture was really lovely’

In fact, 270 adjectives are discerned by means of the property of the equivalent relation (22b–c), while 240 adjectives,<sup>8</sup> occurring in a DNC, do not allow an SCC relation such as *salangsulep-* ‘lovely’ in (20b).

A similar relation is observed with a set of predicates named psychological verbs by Gross (1975) for French. For the construction (26a), comprised of a transitive verb *fatiguer* ‘(to) tire’, the two equivalent sentences of (26b) and (26c) are observed:

- (26) a. *La parole de Marie fatigue Jean*  
 = b. *Jean est fatigué par la parole de Marie*  
 = c. *La parole de Marie est fatigante pour Jean*

A similar triple is observed in English, as well:

- (27) a. *Mary’s nagging tires John*  
 = b. *John is tired of Mary’s nagging*  
 = c. *Mary’s nagging is tiring for John*

<sup>8</sup> These adjectives are syntactically discerned by means of the following criterion:

- (i) a. *N1-NOM N2-EY ADJ-DEC* ‘= N1 is Adj for N2’  
 = b. \**N2-NOM N1-LO ADJ-DEC* ‘= \*N2 is Adj because of N1’  
 = c. *N2-NOM N1-ACC ADJ-eha-DEC* ‘= N2 considers N1 (to be) Adj’

For instance, the relation (ia–c) for the adjective *salangsulep-* ‘lovely’ is shown in the pair (20b)–(ii):

- (ii) *Minwu-ka* [*ina-uy* *kulen mosup*]-*ul* *cengmal* *salangsulep-eha-ess-ta*  
 Minu-NOM [Ina-GEN the posture]-ACC really lovely-consider-PAS-DEC  
 ‘Lit.: Minu really considered Ina’s posture (to be) lovely = Minu really loved Ina’s posture’



The corresponding triple in Korean is as follows:

- (28) a. *[Ina-uy cansoli]-ka minwu-lul acwu phikonha-key ha-ess-ta*  
 [Ina-GEN nagging]-NOM Minu-ACC very tiring/tired-SFX make-PAS-DEC  
 ‘Lit.: Ina’s nagging made Minu very tired = Ina’s nagging tired Minu’
- = b. *Minwu-ka [ina-uy cansoli]-lo acwu phikonha-ess-ta*  
 Minu-NOM [Ina-GEN nagging]-LO very tiring/tired-PAS-DEC  
 ‘Minu was very tired of Ina’s nagging’
- = c. *Minwu-eykey [ina-uy cansoli]-ka acwu phikonha-ess-ta*  
 Minu-EY [Ina-GEN nagging]-NOM very tiring/tired-PAS-DEC  
 ‘Ina’s nagging was very tiring for Minu’

In the triple in Korean, the transitive verb, being frequently absent, is replaced by an adjective assigned to a causative verb like *ha-* ‘make’. In fact, instead of psychological verbs, Korean possesses many psychological adjectives, which usually correspond to both the *V-ing* form and the *V-pp* form of the transitive verbs in English or in French.

To summarize, in the constructions of these adjectives, the nominatives are converted from the complements in *-EY*, which semantically denote a human agent making a subjective evaluation of the other entities or undergoing a psychological experience caused by the latter. These types of DNCs are PD-DNCS, where one nominative (usually the first occurring nominative) is obtained from the complement in *-EY* required by adjectival predicates.

### 3.3.3 Criteria complements in *-EY*

The adjectives such as *almac-* ‘suitable’ or *philyoha-* ‘necessary’ that require another type of complement in *-EY* also appear in DNCs, as shown in the following examples:

- (29) a. *Minwu-ka khawunseylle il-i kacang almac-ta*  
 Minu-NOM counselor job-NOM most suitable-DEC  
 ‘Lit.: (For) Minu, the job of counselor is most suitable’
- b. *Minwu-ka [ina-uy sengkong]-i kkok philyoha-ta*  
 Minu-NOM [Ina=GEN success]-NOM absolutely necessary-DEC  
 ‘Lit.: (For) Minu, Ina’s success is absolutely necessary’

The above DNCs correspond to the following ones:

- (30) = a. *Khawunseylle il-i minwu-eykey kacang almac-ta*  
 counselor job-NOM Minu-EY most suitable-DEC  
 ‘The job of counselor is most suitable to Minu’
- = b. *[Ina-uy sengkong]-i minwu-eykey kkok philyoha-ta*  
 [Ina=GEN success]-NOM Minu-EY absolutely necessary-DEC  
 ‘Ina’s success is absolutely necessary to Minu’

These adjectives actually require a complement in *-EY* that semantically designates a ground or a criterion for the assertion expressed by the predicate. About 340 adjectives are detected as requiring this type of complement in *-EY* that may be converted into a nominative. They may authorize an SCC relation like the precedent types of adjectives, except that the two constructions in the SCC relation are not always identical. A triple relation including a DNC such as (29) can be schematized as follows:

- (31) a. *N1-NOM N2-NOM ADJ*      ‘= (As for) N1, N2 is Adj’  
       = b. *N2-NOM N1-EY ADJ*      ‘= N2 is Adj to (for) N1’  
       ≡ c. *N1-NOM N1-EY ADJ*      ‘= N1 is Adj to (for) N2’

The construction (31c) does not necessarily imply (31b), and vice versa. For instance, for the pairs (29a)–(30a), the following sentence is observed as well:

- (32) *Minwu-ka khawunseylle il-ey kacang almac-ta*  
       Minu-NOM counselor job-EY most suitable-DEC  
       ‘Minu is most suitable for the job of counselor’

Nevertheless, (32) is not necessarily true because of the truth of (30a); the truths of these two sentences do not reciprocally imply each other, different from the two precedent SCC relations where N1 and N2 are interchangeable without exerting any logical implication. Further examination needs to be conducted for this type of adjective.

### 3.3.4 Complements in *-KA*: inherently identical to nominatives

Some adjectives require complements in *-KA*, identical to nominative forms. For these adjectives, the canonical construction is inherently a DNC. Let us examine:

- (33) *Ina-ka kwi-ka aphu-ess-ta*  
       Ina-NOM ears-NOM sore-PAS-DEC  
       ‘Lit.: (As for) Ina, her ears were sore = Ina felt pain in her ears’

The adjective *aphu-* ‘sore’ requires two arguments: a human agent of physical experience and a body part inalienable from this agent. As *Ina* and *kwi* ‘ears’ are IN INALIENABLE RELATION, one cannot insert a noun phrase indicating another human agent in the latter sequence as follows:

- (34) \**Ina-ka [minwu-uy kwi]-ka aphu-ess-ta*  
       Ina-NOM [Minu-GEN ears]-NOM sore-PAS-DEC  
       ‘Lit.: (As for) Ina, Minu’s ears were sore = Ina felt pain in Minu’s ears’

At this point, the adjective *aphu-* ‘sore’ shares some syntactic properties with the adjective *cak-* ‘small’ occurring in a DNC such as (35) (i.e. the same distribution of noun phrases in inalienable relation (Ina and ears), and the prohibition of insertion of a new agent in N2):

- (35) a. *Ina-ka kwi-ka cak-ta*  
 Ina-NOM ears-NOM small-DEC  
 ‘Lit.: (As for) Ina, her ears are small = Ina’s ears are small’  
 b. \**Ina-ka [minwu-uy kwi]-ka cak-ta*  
 Ina-NOM [Minu-GEN ears]-NOM small-DEC  
 ‘Lit.: (As for) Ina, Minu’s ears are small’

However, the adjective *cak*- ‘small’ is actually a unitary-argument predicate, whereas the adjective *aphu*- ‘sore’ is a binary-argument predicate. In fact, the two arguments in the former can be replaced by a single one like *N1-GEN N2* ‘N2 of N1’, whereas those in the latter cannot:

- (36) a. *[Ina-uy kwi]-ka cak-ta*  
 [Ina-GEN ears]-NOM small-DEC  
 ‘Ina’s ears are small’  
 b. ??*[Ina-uy kwi]-ka aphu-ess-ta*  
 [Ina-GEN ears]-NOM sore-PAS-DEC  
 ‘Lit.: Ina’s ears were sore = Ina felt pain in her ears’

The fact that the two arguments in (33) can hardly be unified into one single argument as shown in (36b), nor replaced by other types of complements, confirms the analysis that the construction (33), formally identical to a DNC, is a canonical construction for the given adjective. About 200 adjectives are discerned as sharing these syntactic properties. They convey certain semantic properties in common, like expressing some physical symptom undergone by a human agent such as *kancilkancilha*- ‘tickling’, *ttakkumttakkumha*- ‘stinging’, *kalyep*- ‘itchy’, *sswusi*- ‘tingling’ and *ecilecilha*- ‘dizzy’. To summarize, the complements in *-KA* licensed by these adjectives are the unique type inherently identical to nominatives and, therefore, their canonical constructions are of type *N1-NOM N2-NOM ADJ-DEC*.

### 3.3.5 Embedded accusative complements in raising-subject constructions

Some adjectives such as *swip*- ‘easy’ or *elyep*- ‘hard’ also occur in DNCs as follows:

- (37) a. *Ku mwuncey-ka [10 pwunan-ey phwul-ki]-ka elyep-ta*  
 that problem-NOM [10 minute-in solve-SFX]-NOM hard-DEC  
 ‘Lit.: (As for) that problem, to solve it in 10 minutes is hard = That problem is hard to solve in 10 minutes’  
 b. *I wenphisu-ka [ip-ki]-ka swip-ta*  
 this dress-NOM [put on-SFX]-NOM easy-DEC  
 ‘Lit.: (As for) this dress, to put it on is easy = This dress is easy to put on’

As a matter of fact, the above examples illustrate a well-known syntactic relation between two adjectival constructions such as the following pair in English:<sup>9</sup>

<sup>9</sup> In the tradition of transformational grammars, this phenomenon has been termed *TOUGH MOVEMENT* in English, and *MONTÉE DU SUJET* (subject raising) in French. However, given that this study is primarily an empirical examination, not a theoretical speculation, further detailed discussion of this topic is not presented here.

- (38) a. *It is difficult to solve this problem*  
 = b. *This problem is difficult to solve*

or the following pair in French:

- (39) a. *Il est difficile de résoudre ce problème*  
 = b. *Ce problème est difficile à résoudre*

In Korean, the sentence (38a) makes a similar pair with the following:

- (40) [Ku mwuncey-lul 10 pwunan-ey phwul-ki]-ka elyep-ta  
 [that problem-ACC 10 minute-in solve-SFX]-NOM hard-DEC  
 ‘Lit.: To solve that problem in 10 minutes is hard = It is hard to solve that problem in 10 minutes’

The accusative argument in the clause in subject position in (40) has been RAISED into the upper clause by means of a nominative marker indicating a topic of the utterance. The first nominative *ku mwunce* ‘this problem’ in (37a) acts as a direct object of the verb *phwul-* ‘solve’ in the inner clause. Thus, the relation (40)–(37a) is schematized as in (41):

- (41) a. [NI-ACC V-KI]-NOM ADJ-DEC ‘ = To V N1 is Adj (=It is Adj to V N1)’  
 = b. NI-NOM [V-KI]-NOM ADJ-DEC ‘ = N1 is Adj to V’

The relation (41) can be established if certain constraints are satisfied: the clausal subject in (41a) should be a nominalization of transitive verbs that require an accusative complement, and the nominal suffix (i.e. SFX) attached to the clausal subject is *-ki*, rather than the other forms such as *kes*, *tey*, or *-um*. About 320 adjectives satisfy these constraints, and thus the relation (41).

It is worth noting that, for these adjectives, another type of construction corresponding to the pair (37a)–(40) is observed. Let us examine the following sentence:

- (42) Ku mwuncey-ka [10 pwunan-ey phwul-ki]-ey elyep-ta  
 that problem-NOM [10 minute-in solve-SFX]-EY hard-DEC  
 ‘Lit.: That problem is hard for solving in 10 minutes = That problem is hard for being solved in 10 minutes’

which can be schematized as follows:

- (43) = NI-NOM [V-KI]-EY ADJ-DEC ‘ = N1 is Adj for being V-pp’<sup>10</sup>

<sup>10</sup> However, the construction (43) does not always seem to be allowed for the pair (41), as shown in the following triple where (ic) is not as natural as (ia) and (ib):

In brief, on the basis of this empirical approach, a persistent property emerges regarding the complement types in adjectival constructions: all converted nominatives in adjectival constructions appear to be related to NON-DATIVE COMPLEMENTS IN *-EY*. In addition, the adjectives licensing a PD-DNC mostly permit two syntactic constructions in an SCC relation like ‘*N1-NOM N2-POS ADJ-DEC = N2-NOM N1-POS ADJ-DEC*’. Meanwhile, diverse types of DD-DNCs are independently observed for various adjectival predicates. They will be examined in the following section.

#### 4. Diverse types of DD-DNCs

DD-DNCs designate the DNCs in which one of the two nominatives is not affected by the argument structures of adjectival predicates. This nominative usually shows up in the front of the sentence. It can be split from noun phrases in the subject position, converted from some time adverbials, or newly introduced in existing sentences to add certain discourse effects. One important point in defining this category is that one of the two nominatives in these DNCs is not an essential argument of adjectival predicates; these DNCs are distinct from those discussed in the previous sections (i.e. PD-DNCs). Therefore, all the DNCs treated in this section can be paraphrased by other syntactic structures where one of the two nominatives is integrated, deleted, or turned into other elements of the sentence.

Since DD-DNCs are generated by this type of operation, they can contain diverse adjectives. In addition, as there is no a priori number limit on the operation, multiple nominatives such as ‘*N1-NOM N2-NOM N3-NOM ... Nn-NOM ADJ-DEC*’ can be produced. This study sub-categorizes DD-DNCs into the following four types: nominatives originating from numeral quantifiers of the noun phrases in subject, nominatives related to genitives constituting the noun phrases in subject, nominatives obtained from time adverbials used as adjuncts, and nominatives newly added to existing sentences.

##### 4.1 Nominatives originating from numeral quantifiers

This type of DD-DNC is characterized by the presence of a floating numeral modifier in a nominative position, mostly in the position of second occurring nominative. Let us consider:

- 
- |     |      |  |   |                             |
|-----|------|--|---|-----------------------------|
| (i) | a.   | <i>Ku mwuncey-ka</i><br>that problem-NOM   | <i>[phwul-ki]-ka</i><br>[solve-SFX]-NOM | <i>elyep-ta</i><br>hard-DEC |
|     |      | ‘Lit.: (As for) that problem, to solve it is hard = That problem is hard to solve’ |   |                             |
|     | = b. | <i>[Ku mwuncey-lul</i><br>[that problem-ACC  | <i>phwul-ki]-ka</i><br>solve-SFX]-NOM   | <i>elyep-ta</i><br>hard-DEC |
|     |      | ‘It is hard to solve that problem’   |   |                             |
|     | = c. | <i>??Ku mwuncey-ka</i><br>that problem-NOM   | <i>[phwul-ki]-ey</i><br>[solve-SFX]-EY  | <i>elyep-ta</i><br>hard-DEC |
|     |      | ‘Lit.: That problem is hard for solving = That problem is hard for being solved’   |   |                             |

In order that (ic) becomes as natural as (ia) and (ib), certain semantic or discourse modifiers are required in the complement in *-EY* such as *10 pwunan-ey* ‘in 10 minutes’ or *aitul-i* ‘by children’. Further study will be required, to provide an accurate analysis of these phenomena.

- (44) a. *Haksayng-i sey myeng-i ttokttokha-ta*  
 student-NOM three CLA-NOM smart-DEC  
 ‘Lit.: (As for) students, three are smart = Three students are smart’  
 b. *Mwul-i il lithe-ka ttattusha-ta*  
 water-NOM one CLA-NOM warm-DEC  
 ‘Lit.: (As for) water, one liter is warm’

The second nominatives in (44) are composed of a numeral quantifier followed by a classifier such as *sey myeng* ‘three persons’ and *il lithe* ‘one liter’. They logically modify the head nouns appearing in the first position in each sentence, although they show up detached after the head nouns. The sentences in (44) actually correspond to the following ones:

- (45) a. [*Sey myeng-uy haksayng*]-i *ttokttokha-ta*  
 [three CLA-GEN student]-NOM smart-DEC  
 ‘Three students are smart’  
 b. [*Il lithe-uy mwul*]-i *ttattusha-ta*  
 [one CLA-GEN water]-NOM warm-DEC  
 ‘One liter of water is warm’

The relation between (44) and (45) can be schematized as:

- (46) a. *NI-NOM [NUM CLA]2-NOM ADJ-DEC* ‘= (As for) N1, [NUM (CLA)]2 is Adj’  
 = b. *[[NUM CLA]2-GEN NI]1-NOM ADJ-DEC* ‘= [NUM (CLA of)]2 N1 is Adj’

[NUM CLA]2 in (46a), being originally a constituent of the noun phrase in (46b), shows up detached from the head noun. Due to this syntactically unusual behavior, the construction (46a) has been called a FLOATING QUANTIFIER CONSTRUCTION, which attracted the attention of many scholars to the syntactic particularities of quantifiers in Korean. In fact, this type of nominative is easily observed, since this operation may be executed to introduce certain discourse effects without requiring nominatives related to any essential complements. Thus, a noun phrase modified by a quantifier in a binary-argument adjectival construction may be converted into two nominatives independently from the complement as shown in the DNCs (48) obtained from the canonical constructions (47):

- (47) a. [*Twu myeng-uy chamkaca*]-ka *ku hayngsa-ey pwucokha-ta*  
 [two CLA-GEN participant]-NOM that event-EY wanting-DEC  
 ‘Lit.: Two participants are wanting for that event = The event is short of two participants’  
 b. [*Swusip kay-uy kong*]-i *ku kapang-ey ppaykppaykha-ta*  
 [several tens CLA-GEN ball]-NOM that bag-EY packing-DEC  
 ‘Lit.: Several tens of balls are packing that bag = That bag is full of several tens of balls’



- (48) a. *Chamkaca-ka* [two myeng]-i *ku hayngsa-ey* *pwucokha-ta*  
 participant-NOM [two CLA]-NOM that event-EY wanting-DEC  
 ‘Lit.: The participants, two persons, are wanting for that event = The event is short of two participants’
- b. *Kong-i* [swusip kay]-ka *ku kapang-ey* *ppaykppaykha-ta*  
 ball-NOM [several tens CLA]-NOM that bag-EY packing-DEC  
 ‘Lit.: Balls, several tens of units, are packing that bag = That bag is full of several tens of balls’

Here, the complements in *-EY* in (48) may, in turn, be converted into nominatives (i.e. PD-DNC), and as a result, (48) may become triple nominative constructions, as shown in (49).

- (49) a. *Ku hayngsa-ka* *chamkaca-ka* *twu myeng-i* *pwucokha-ta*  
 that event-NOM participant-NOM two CLA-NOM wanting-DEC  
 ‘Lit.: (As for) that event, the participants, two persons, are wanting = The event is short of two participants’
- b. *Ku kapang-i* *kong-i* *swusip kay-ka* *ppaykppaykha-ta*  
 that bag-NOM ball-NOM several tens CLA-NOM packing-DEC  
 ‘Lit.: (As for) that bag, balls, several tens of units, are packing = That bag is full of several tens of balls’

As a matter of fact, the first nominative of the triple nominatives in (49) is converted from the complement in *-EY* required by the adjectival predicate in (48), while the third one is obtained by being split from the second one as a floating numeral quantifier. This situation reveals that the DD-DNC operation may occur at a discourse level apart from the syntactic operation, and in this way, any PD-DNCs discussed in §3 may, in turn, be the target of this extra operation occurring at a discourse level.

## 4.2 Nominatives related to genitives in other noun phrases

This type of nominative is obtained from genitives included in other noun phrases, as shown in (50a–b):

- (50) a. *N1-NOM N2-NOM ADJ-DEC* ‘=(As for) N1, N2 is Adj’  
 = b. [*N1-GEN N2*]-NOM *ADJ-DEC* ‘= N1’s N2 is Adj’

The N1 in (50a) corresponds to the genitive phrase in the noun phrase in (50b). This type of relation has provoked the most vigorous discussions among previous scholars (Choi 2002, 2008; Ko 2001; Song 2009). Syntactically, N1 in (50a) does not show any legitimate function required by the adjectival predicate. Semantically, it is emphasized as a topic appearing in front of the sentence. More precisely, these DNCs show various semantic relations between two nominatives, which can be characterized by six sub-types: nominatives in POSSESSION relation, those in PART–WHOLE relation, those in KINSHIP relation, those in INALIENABILITY relation, those in PROPERTY relation, and those in EVENT relation.

Nevertheless, a semantic classification is barely justifiable, even though most of the aforementioned sub-types have been attested to by previous researchers. These sub-types have been roughly termed a BIG–SMALL RELATION, except the last sub-type (i.e. the EVENT relation), which has hardly been mentioned. Let us briefly consider the above six types.

First, the following sentences illustrate the case of two nominatives in the possession relation. Let us consider:

- (51) a. *Minwu-ka cip-i kunsaha-ta*  
 Minu-**NOM** house-**NOM** great-DEC  
 ‘Lit.: (As for) Minu, the house is great = Minu’s house is great’  
 b. *Ina-ka cha-ka cengmal tokthukha-ta*  
 Ina-**NOM** car-**NOM** really original-DEC  
 ‘Lit.: (As for) Ina, the car is really original = Ina’s car is really original’

The semantic relation between N1 and N2 may be characterized as possession, where N1 is a possessor of the entity N2. The adjectives in (51a) and (51b) are actually the predicates for the entity N2, not the possessors N1. Genitive-based constructions such as (52) justify these predicative relations:

- (52) = a. [*Minwu-uy cip]-i kunsaha-ta*  
 [Minu-**GEN** house]-**NOM** great-DEC  
 ‘Minu’s house is great’  
 = b. [*Ina-uy cha]-ka cengmal tokthukha-ta*  
 [Ina-**GEN** car]-**NOM** really original-DEC  
 ‘Ina’s car is really original’

Second, the type of the semantic relation between two nominatives is a part–whole relation, where N2 is a part of N1. Consider:

- (53) a. *Ku uyca-ka tungpati-ka pwulphyenha-ta*  
 that chair-**NOM** back-**NOM** uncomfortable-DEC  
 ‘Lit.: (As for) that chair, the back is uncomfortable = The back of the chair is uncomfortable’  
 b. *Ku cha-ka eyncin-i thunthunha-ta*  
 that car-**NOM** engine-**NOM** strong-DEC  
 ‘Lit.: (As for) that car, the engine is strong = The engine of that car is strong’

In the above examples, the entities N1 and N2 are in a whole–part relation, which is explicitly interpreted by the equivalent constructions *N1-uy N2* ‘N2 of N1’:

- (54) a. [*Ku uyca-uy tungpati]-ka pwulphyenha-ta*  
 [that chair-**GEN** back]-**NOM** uncomfortable-DEC  
 ‘The back of that chair is uncomfortable’

- b. [Ku cha-uy        eyncin]-i        thunthunha-ta  
       [that car-GEN    engine]-NOM    strong-DEC  
       ‘The engine of that car is strong’

Third, this type shows a kinship relation, where N1 and N2 are in kinship relation, as illustrated in (55):

- (55) a. Minwu-ka        tongsayng-i        pwucilenha-ta  
       Minu-NOM    brother-NOM    diligent-DEC  
       ‘Lit.: (As for) Minu, his brother is diligent = Minu’s brother is diligent’  
       b. Ina-ka        enni-ka        ttokttokha-ta  
       Ina-NOM    sister-NOM    intelligent-DEC  
       ‘Lit.: (As for) Ina, her sister is intelligent = Ina’s sister is intelligent’

The above examples correspond to the following ones:

- (56) a. [Minwu-uy        tongsayng]-i        pwucilenha-ta  
       [Minu-GEN    brother]-NOM    diligent-DEC  
       ‘Minu’s brother is diligent’  
       b. [Ina-uy        enni]-ka        ttokttokha-ta  
       [Ina-GEN    sister]-NOM    intelligent-DEC  
       ‘Ina’s sister is intelligent’

These two noun phrases are necessarily *human* nouns; in particular, the nouns in N2 are limited to kinship relational nouns such as *emma* ‘mother’, *apeci* ‘father’, *samchon* ‘uncle’, *imo* ‘aunt’, or *tongsayng* ‘brother’.

Fourth, this type of relation between N1 and N2 designates an inalienability relation between two nominatives. Consider:

- (57) a. Ina-ka        nwun-i        yeyppu-ta  
       Ina-NOM    eye-NOM    pretty-DEC  
       ‘Lit.: (As for) Ina, the eyes are pretty = Ina’s eyes are pretty’  
       b. Minwu-ka        phal-i        kil-ta  
       Minu-NOM    arm-NOM    long-DEC  
       ‘Lit.: (As for) Minu, the arms are long = Minu’s arms are long’

In the above examples, the first noun is a human and the second a body part of this human. This inalienable relation is explicitly interpreted by the noun phrase *N1-uy N2* ‘N1’s N2’, as shown in the following sentences:

- (58) a. [Ina-uy        nwun]-i        yeyppu-ta  
       [Ina-GEN    eye]-NOM    pretty-DEC  
       ‘Ina’s eyes are pretty’

- b. [Minwu-uy phal]-i kil-ta  
 [Minu-GEN arm]-NOM long-DEC  
 ‘Minu’s arms are long’

Fifth, this type expresses a property of an entity, where N2 is a noun of property such as *khi* ‘height’ or *pwuphi* ‘volume’ appropriate to the semantic characteristics of the adjective. Consider:

- (59) a. Minwu-ka khi-ka kkway khu-ta  
 Minu-NOM height-NOM quite high-DEC  
 ‘Lit.: (As for) Minu, his height is high = Minu is quite high in stature’  
 b. Ku thong-i pwuphi-ka nemwu cak-ta  
 that bucket-NOM volume-NOM too small-DEC  
 ‘Lit.: (As for) that bucket, the volume is too small = That bucket is too small in volume’

The above constructions correspond to the following genitive-based constructions:

- (60) a. [Minwu-uy khi]-ka kkway khu-ta  
 [Minu-GEN height]-NOM quite high-DEC  
 ‘Lit.: Minu’s height is high = Minu is quite high in stature’  
 b. [Ku thong-uy pwuphi]-ka nemwu cak-ta  
 [that bucket-GEN volume]-NOM too small-DEC  
 ‘Lit.: The volume of that bucket is too small = That bucket is too small in volume’

Unlike the nouns in position N2 in the precedent DNCs, these nouns of property do not accept the insertion of modifiers.

Finally, this type shows two nominatives in event relation. Let us examine the following sentences:

- (61) a. Suthipu capsu-ka chwumosik-i tokthukha-ess-ta  
 Steve Jobs-NOM memorial-NOM original-PAS-DEC  
 ‘Lit.: (As for) Steve Jobs, the memorial was original = Steve Jobs’s memorial was original’  
 b. Ku yeca-ka somwun-i acwu nappu-ta  
 that girl-NOM reputation-NOM very bad-DEC  
 ‘Lit.: (As for) that girl, the reputation is very bad = That girl has a very bad reputation’  
 c. Kim sensayngnim-i haksayng phyengka-ka hangsang nalkhalop-ta  
 Kim Mr.-NOM student evaluation-NOM always sharp-DEC  
 ‘Lit.: (As for) Mr. Kim, student evaluation is always sharp = Mr. Kim is always sharp at student evaluation’

The two nominatives in (61) are related to genitive-based noun phrases as shown in (62):

- (62) a. [*Suthipu capsu-uy chwumosik*]-*i tokthukha-ess-ta*  
 [Steve Jobs-GEN memorial]-NOM original-PAS-DEC  
 ‘Steve Jobs’s memorial was original’
- b. [*ku yeca-uy somwun*]-*i acwu nappu-ta*  
 [that girl-GEN reputation]-NOM very bad-DEC  
 ‘That girl’s reputation is very bad’
- c. [*Kim sensayngnim-uy haksayng phyengka*]-*ka hangsang nalkhalop-ta*  
 [Kim Mr.-GEN student evaluation]-NOM always sharp-DEC  
 ‘Lit.: Mr. Kim’s student evaluation is always sharp = Mr. Kim is always sharp at student evaluation’

However, the noun phrases *N1-uy N2* ‘N1’s N2’ in (62) can also be paraphrased by diverse types of noun phrases such as *N1-ey tayhan N2* ‘N2 about N1’, *N1-lul wihan N2* ‘N2 for N1’, or *N1-ka hanun N2* ‘N2 done by N1’, which concretize the semantic relations between N1 and N2 in (62). Compare (62) with (63):

- (63) a. [*Suthipu capsu-(ey tayhan + lul wihan + \*ka hanun) chwumosik*]-*i tokthukha-ess-ta*  
 [Steve Jobs-(about + for + \*done by) memorial]-NOM original-PAS-DEC  
 ‘Lit.: The memorial (about + for + \*done by) Steve Jobs was original’
- b. [*Ku yeca-(ey tayhan + \*lul wihan + \*ka hanun) somwun*]-*i acwu nappu-ta*  
 [that girl-(about + \*for + \*done by) reputation]-NOM very bad-DEC  
 ‘Lit.: The reputation (about + \*for + \*done by) that girl is very bad’
- c. [*Kim sensayngnim-(ey tayhan + \*ul wihan + i hanun)*  
 [Kim Mr.-( \*about + \*for + done by)  
*haksayng phyengka*]-*ka hangsang nalkhalop-ta*  
 student evaluation]-NOM always sharp-DEC  
 ‘Lit.: Student evaluation (\*about + \*for + done by) Mr. Kim is always sharp’

As seen in (63), according to the logical relation types between N1 and N2, the adequate paraphrase types corresponding to each sentence are not identical. These relations can be schematized as in (64):

- (64) a. *N1-NOM N2-NOM ADJ-DEC* ‘= (As for) N1, N2 is Adj’  
 = b. [*N1-GEN N2*]-*NOM ADJ-DEC* ‘= N1’s N2 is Adj’  
 = c. [*N1-for/about/done by N2*]-*NOM ADJ-DEC* ‘= N2 for/about/done by N1 is Adj’

In this regard, the two nominatives in event relation might, in future works, be divided into smaller sub-types. Nonetheless, as long as the discussion about this type of DNC remains at the semantic level, it cannot be determined in a finite way. Therefore, although this semantic description reveals significant information concerning these DNCs, further detailed studies should be carried out at syntactic and formal levels.

### 4.3 Nominatives generated from time adverbials

This type of DD-DNC is composed of nominatives corresponding to certain time adverbials (Kim & Sells 2010). The first occurring nominative in (65a) actually originates from a time expression such as *cinanhay* ‘last year’ in (65b):

- (65) a. *Cinanhay-ka minwu-ka manhi aphu-ess-ciman*, ...  
 last year-NOM Minu-NOM seriously sick-PAS-CON  
 ‘Although, (as for) last year, Minu was seriously sick, ...’  
 = b. *Minwu-ka cinanhay manhi aphu-ess-ciman*, ...  
 Minu-NOM last year seriously sick-PAS-CON  
 ‘Although Minu was seriously sick last year, ...’

The time expression *cinanhay* ‘last year’ is an ambiguous unit in regard to the part of speech determination. Despite its possible usage as a noun in other contexts, it behaves here as a time adverbial. The substitution of this unit by adverbials such as *ecey pwuthe* ‘since yesterday’ or *ithul tongan* ‘during 2 days’ confirms this aspect:<sup>11</sup>

- (66) *Minwu-ka (cinanhay + ecey pwuthe + ithul tongan) manhi aphu-ess-ciman* ...  
 Minu-NOM (last year + yesterday since + 2 days during) seriously sick-PAS-CON  
 ‘Although Minu was seriously sick (last year + since yesterday + during 2 days) ...’

The time adverbials in (66) can all appear as nominatives as follows:

<sup>11</sup> Notice that some other types of adverbials can be followed by a topic marker *-NUN* like:

- (i) a. *Minwu-ka (ppalli + cha-lo + achim-ey + cipang-eyse) o-ess-ciman* ...  
 Minu-NOM (quickly + car-By + morning-In + province-From) come-PAS-CON  
 ‘Although Minu came (quickly + by car + in the morning + from the provinces) ...’  
 = b. *Minwu-ka (ppalli + cha-lo + achim-ey + cipang-eyse)-nun o-ess-ciman* ...  
 Minu-NOM (quickly + car-By + morning-In + province-From)-NUN come-PAS-CON  
 ‘Although Minu came (quickly + by car + in the morning + from the provinces) ...’

which is allowed in construction (66) as well, as shown in:

- (ii) *Minwu-ka (cinanhay + ecey pwuthe + ithul tongan)-nun/un manhi aphu-ess-ciman* ...  
 Minu-NOM (last year + yesterday since + 2 days during)-NUN seriously sick-PAS-CON  
 ‘Although Minu was seriously sick (last year + since yesterday + during 2 days) ...’

However, the nominative marker *-KA* is not allowed for the adverbials in (ib), unlike (67). Compare (ib) with (iii):

- (iii) \**Minwu-ka (ppalli + cha-lo + achim-ey + cipang-eyse)-ka o-ess-ciman* ...  
 Minu-NOM (quickly + car-By + morning-In + province-From)-NOM come-PAS-CON  
 ‘Although Minu came (quickly + by car + in the morning + from the provinces) ...’



- (67) = (Cinanhay+ecey pwuthe+ithul tongan)-ka/i  
 (last year+yesterday since+2 days during)-**NOM**  
*minwu-ka manhi aphu-ess-ciman ...*  
 Minu-NOM seriously sick-PAS-CON  
 ‘Although, (as for) (last year+since yesterday+during 2 days), Minu was seriously sick ...’

However, as shown in (68), when the same adverbials appear in VERBAL constructions:

- (68) *Minwu-ka (cinanhay+Ecey pwuthe+ithul tongan) thokki-lul khiwu-ess-ciman ...*  
 Minu-NOM (last year+yesterday since+2 days during) rabbit-ACC raise-PAS-CON  
 ‘Although Minu raised rabbits (last year+since yesterday+during 2 days) ...’

different from those appearing in ADJECTIVAL constructions, they cannot become nominatives. Compare (67) with (69):

- (69) \*(Cinanhay+Ecey pwuthe+ithul tongan)-ka/i  
 (Last year+yesterday since+2 days during)-**NOM**  
*minwu-ka thokki-lul khiwu-ess-ciman ...*  
 Minu-NOM rabbit-ACC raise-PAS-CON  
 ‘Although (last year+since yesterday+during 2 days) Minu raised rabbits ...’

Therefore, nominatives related to time adverbials seem to be reserved for adjectival predicates. The following pair confirms this assumption:

- (70) a. *Cinanhay tongan ku il-i thukhi minwu-eykey phikonha-ess-ta*  
 last year during that work-NOM in particular Minu-EY tiring/tired-PAS-DEC  
 ‘Lit.: During last year, that work, in particular, was tiring for Minu’  
 b. *Cinanhay tongan ku il-i thukhi minwu-lul koylophi-ess-ta*  
 last year during that work-NOM in particular Minu-ACC trouble-PAS-DEC  
 ‘Lit.: During last year, that work, in particular, troubled Minu’

The adverbial in (70a) can become a nominative, whereas that in (70b) cannot:

- (71) a. *Cinanhay tongan-i ku il-i thukhi minwu-eykey phikonha-ess-ta*  
 last year during-**NOM** that work-**NOM** in particular Minu-EY tiring/tired-PAS-DEC  
 ‘Lit.: During last year, that work, in particular, was tiring for Minu’  
 b. \**Cinanhay tongan-i ku il-i thukhi minwu-lul koylophi-ess-ta*  
 last year during-**NOM** that work-**NOM** in particular Minu-ACC trouble-PAS-DEC  
 ‘Lit.: During last year, that work, in particular, troubled Minu’

Further studies on the conditions of the conversion of time adverbials into nominatives are required, to account for the asymmetry observed between adjectival and verbal constructions.

#### 4.4 Nominatives newly introduced

This type of DD-DNC represents the DNCs where a nominative is newly added for some discourse effects. In the following sentences, the first nominative is not originally a constituent of the sentence, but simply introduced at a discourse level. Consider:

- (72) a. *Kyeycel-i kaul-i mesiss-ta*  
 season-NOM autumn-NOM splendid-DEC  
 ‘Lit.: (As for) the season, autumn is splendid’  
 b. *Sayngsenhoy-ka kwange-ka ceyil kosoha-ta*  
 raw fish-NOM flatfish-NOM most tasty-DEC  
 ‘Lit.: (As for) raw fish, flatfish is most tasty’

The first nominative in (72) can always be deleted without affecting the argument structure of the basic sentences. Compare (72) with (73), where the first nominatives are removed:

- (73) a. *Kaul-i mesiss-ta*  
 autumn-NOM splendid-DEC  
 ‘Autumn is splendid’  
 b. *Kwange-ka ceyil kosoha-ta*  
 flatfish-NOM most tasty-DEC  
 ‘Flatfish is most tasty’

In the precedent DNCs, deletion of one of two nominatives can make the sentence semantically incomplete, but the deletion of N1 in the above sentences is always legitimate. In fact, the first nominative N1, especially addable to adjectival or state verbal constructions, acts as the topic of the prime statement. In order to clarify the required conditions for the addition of these topic phrases, closer examination of the adjectival and verbal constructions should be conducted.

#### 5. Conclusion

Despite a large number of studies attempting to explain the double nominative phenomena in Korean, the predicate types licensing the conversion of essential complements into nominatives, and the sub-types of DNCs determined according to the types of corresponding adjectival constructions have rarely been discussed. Most previous studies have focused on certain semantic and syntactic properties of the nominatives: the nature of relations between two nominatives has been discussed from semantic and discourse viewpoints, and the subject has been identified from two nominatives at a syntactic level and theoretically justified. However, empirical examination of a large-scale database of predicate types licensing DNCs has been almost completely neglected.

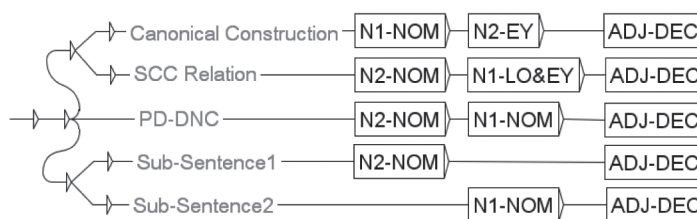
This study has been conducted on the basis of the database of adjectival constructions proposed by Nam (1996, 2007). This study distinguishes two types of DNCs: PD-DNCs, where the two nominatives are essential arguments of the adjectival predicates; and DD-DNCs, where one of the two

nominatives is not related to the argument structures, but either is generated by the split of one argument or is newly introduced at the discourse level. Unlike the former, which is directly related to the argument structures of adjectives, the latter can appear in various types of primary sentences, and even in other DNCs as many times as possible, if certain semantic and discourse conditions are satisfied.

In this regard, in contrast with DD-DNCs that can hardly be predicted via the syntactic properties of adjectives, PD-DNCs can be identified, when the predicate types are properly recognized. Regarding PD-DNCs, the CONDITIONS licensing this conversion are empirically discerned as follows:

- According to the examination of the complement types in adjectival constructions, the COMPLEMENTS in *-EY* are relevant to the conversion into nominatives, and not the other types of complements.
- Among the complements in *-EY* in adjectival constructions, those roughly corresponding to DATIVE complements do not accept the conversion, and those in *-EY* representing scene-locative, psycho-evaluative, and criteria complements can be converted into nominatives.
- The adjectival predicates that license their complements in *-EY* for conversion into nominatives mostly authorize TWO CONSTRUCTIONS IN THE SCC RELATION between N1 and N2 (i.e. *N1-NOM N2-POS ADJ-DEC = N1-NOM N2-POS ADJ-DEC*). Two elliptical sub-sentences (i.e. *N1-NOM ADJ-DEC* and *N2-NOM ADJ-DEC*), being semantically incomplete but syntactically legitimate, justify the existence of these two constructions in the SCC relation.

The SCC relation between the subject and the complement in *-EY* for the adjectives licensing PD-DNCs can be schematized as shown in Figure 1.



**Figure 1:** SCC relation types for the adjectives licensing PD-DNCs

On this basis, determining whether the subject is N1 or N2 in given DNCs seems irrelevant, since these two nouns are both originally susceptible to being the subject in two different syntactic constructions, which may be replaced by a DNC. Due to overemphasis on the theoretical studies of DNCs, empirically verified results have rarely been reported. That non-dative complements in *-EY* in adjectival constructions are relevant to the conversion into nominatives and that most of these adjectives license an SCC relation between the subject and the complement in *-EY* are facts that have been poorly noticed. This is one of the main advances offered by the current study. This study discovers that about 30% of 6,600 Korean adjectives license PD-DNCs. They are classified into five sub-types, as shown in Table 2.

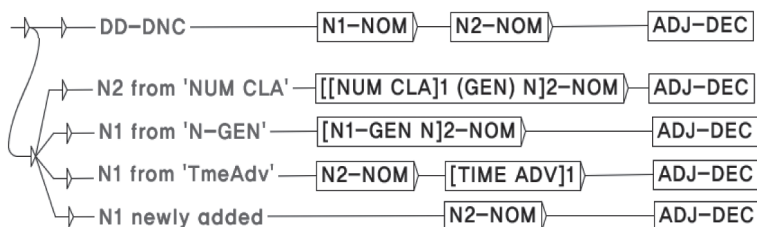
**Table 2:** Five sub-types of adjectives licensing PD-DNC types

No.	Canonical construction	PD-DNC Type	Semantic property of ADJ	Quantity
1	<i>N1-NOM N2-EY ADJ-DEC</i>	<i>N2-NOM N1-NOM ADJ-DEC</i>	Scenic occupation of N1 at the location N2	640
2	<i>N1-NOM N2-EY ADJ-DEC</i>	<i>N2-NOM N1-NOM ADJ-DEC</i>	Psycho-evaluation of N1 by the human N2	510
3	<i>N1-NOM N2-EY ADJ-DEC</i>	<i>N2-NOM N1-NOM ADJ-DEC</i>	Judgment of N1 on the basis of the criterion N2	340
4	<i>N1-NOM N2-KA ADJ-DEC</i>	<i>N1-NOM N2-NOM ADJ-DEC</i>	Physical symptoms of the body part N2 felt by N1	200
5	<i>[N2-ACC Vn]I-NOM ADJ-DEC</i>	<i>N2-NOM VnI-NOM ADJ-DEC</i>	Evaluation of the entity N2 in relation to the action (Vn)1	320
	Total			2,010

Regarding DD-DNCs, four sub-types are discerned according to the types of relations between N1 and N2, as discussed in §4:

- Nominatives originating from NUMERAL QUANTIFIERS split from the noun phrases in the subject;
- Nominatives related to GENITIVES that constitute the noun phrases in the subject;
- Nominatives generated from certain TIME ADVERBIALS used as adjuncts;
- Nominatives NEWLY INTRODUCED into existing sentences for certain discourse effects.

These basic DD-DNC types can be schematized, as shown in Figure 2:

**Figure 2:** Four basic DD-DNC types

However, in the case of DD-DNCs, there is no theoretical limit on the repetition of nominatives. When multiple nominatives occur, they should be accounted for after the DNC types are identified; DD-DNC operations can be a priori executed, even upon the other DNCs, as many times as possible. Given that the main goal of this study is to examine empirically all adjective predicates and their complement types that are convertible into nominatives, and accordingly to distinguish

the DNCs related to the argument structures of adjectives (i.e. PD-DNCs) from the other types of DNCs (i.e. DD-DNCs), the latter DNC types have not been systematically examined. In further studies, the conditions and constraints required for DD-DNC operations should be more closely investigated, in order to provide a global explanation of these constructions. In addition, DNC types founded on verbal predicates, parallel to adjectival ones, should be investigated in detail, as long as only certain *STATIC* verbs semantically closed to adjectives allow this operation. Since, from syntactic and semantic viewpoints, the DNCs result from diverse and complex linguistic realities, a rigorous examination of the predicate types is required, before attempting to elaborate theoretical assumptions further.

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# 雙主語構造下韓語形容詞謂語的實證研究

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基於 6,600 條韓語形容詞，本研究將雙主語構造區分為謂語獨立雙主語和交流獨立雙主語兩種類型。謂語獨立雙主語中兩主語是形容詞謂語的實質論元。交流獨立雙主語中的任一主語都與論元結構不相關，但他們或者是由分離論元產生或者在交流中被新近引入。6,600 個形容詞中的 30% 允許謂語獨立雙主語。依照句法和語義，謂語獨立雙主語被分為五個子類型。交流獨立雙主語則可分為四個子類型，這些類型展示了不同於謂語獨立雙主語的各種語義和依據造詞法的特性。

關鍵詞：雙主語，形容詞，補語，轉換，話語效應