

# **On some expressions of plurality in Korean and their implications: With reference to Chinese and Japanese\***

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**An, Duk-Ho. 2016. On some expressions of plurality in Korean and their implications: With reference to Chinese and Japanese.** *Linguistic Research* 33(2), 205-227. Li (1999) and Ochi (2012) examine the behavior of the plural suffixes in Chinese and Japanese, i.e., *men* and *tachi*, respectively, and argue that their behavior sheds light on the syntax of noun phrases in the languages in question. In this paper, I extend Li's and Ochi's analyses to equivalent expressions of plurality in Korean and consider their implications. In particular, I examine the properties of *tung* and *tul*, focusing largely on the former, an element that has not received any attention in the generative syntactic literature on Korean. I show that unlike their Chinese and Japanese counterparts, *tung* and *tul* show complementarity with respect to the collective-plural dichotomy Li and Ochi discuss. I argue that these interpretive differences correlate with the structural status of *tung* and *tul* on the one hand and the types of nouns that these elements are attached to on the other. In addition to shedding light on the structure of noun phrases in Korean more generally, the discussion also has implications for the structure of numeral classifier constructions, which has been rather controversial. (Konkuk University)

**Keywords** plural suffix, noun phrase, DP, numeral classifier, quantifier float

## **1. Introduction**

Li (1999) and Ochi (2012) examine the syntax and semantics of the plural suffixes (PL) in Chinese and Japanese, i.e., *men* and *tachi*, respectively. In particular, they note that the interpretation of *men*- and *tachi*-phrases correlates with the type of

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\* Special thanks are due to Masao Ochi for helpful comments and discussion. I am also grateful to two anonymous reviewers for their insightful feedback. This paper was supported by Konkuk University in 2014.

the head noun. For instance, when these suffixes are attached to a common noun, they yield a plural reading, just like the regular plural suffix *s* in English, as shown in (1). On the other hand, when these suffixes are attached to a proper noun, they yield a “collective” reading (i.e., ‘the particular individual and others in the group’) as well as a plural reading (i.e., ‘a group of people with the same name or characteristics’), as shown in (2).

- (1) a. xuesheng-men  
       student-PL  
       ‘the students’  
       b. gakusei-tachi  
       student-PL  
       ‘the students’ (Ochi 2012)
- (2) a. Xiao Qiang-men  
       X.Q.-PL  
       ‘Xiao Qiang and others’ (collective)  
       ‘a group of people all named Xiao Qiang’ (plural)  
       b. Hanako-tachi  
       H.-PL  
       ‘Hanako and others’ (collective)  
       ‘a group of people all named Hanako’ (plural) (Ochi 2012)

In Korean, plurality is typically marked by the suffix *tul*. When attached to a common noun, it yields the usual plural reading, as shown in (3).

- (3) haksayng-tul  
       student-PL  
       ‘the students’

However, *tul* behaves differently from *men* and *tachi* when it attaches to a proper noun. That is, *tul* does not allow a collective reading at all. Only a plural reading is allowed.

- (4) John-tul  
 J.-PL  
 \*‘John and others.’ (collective)  
 ‘a group of people all named John.’ (plural)

Interestingly, Korean employs a different expression to induce the kind of collective reading discussed by Li and Ochi. The element in question is *tung*.<sup>1</sup>

- (5) John tung  
 J. tung  
 ‘John and others.’ (collective)  
 \*‘a group of people all named John.’ (plural)

As shown above, *tung* can combine with a proper noun and yield a collective reading ‘the particular individual and others in the group’. However, unlike *men* and *tachi* phrases (and, also, *tul*), *tung* does not allow a plural reading, as indicated in (5).<sup>2</sup>

The goal of this paper is to examine the properties of *tung* in relation to its Chinese and Japanese counterparts. The discussion will also have implications for the nature of the plural suffix *tul* as well as the structure of numeral classifier constructions in Korean.

<sup>1</sup> Unlike *tul*, which is standardly assumed to be a suffix, *tung* behaves more like a clitic than a suffix as it is dependent on a preceding word, e.g., it cannot stand alone without a preceding word, without becoming a part of it morphologically. In this regard, it is also noteworthy that in Korean grammar, *tung* is categorized as a “dependent noun”.

<sup>2</sup> According to *Standard Korean Dictionary*, published by the National Institute of Korean Language (<http://www.korean.go.kr>), *tul* and *tung* can also be associated with two or more nouns, i.e., a list of nouns, at a time. In that case, *tul* yields an interpretation that is similar to what we call a collective reading. When *tung* is combined with two or more nouns at a time, it indicates that the list of relevant elements should be limited to the elements mentioned. These are very different from the cases we examine in this paper. Therefore, it should be kept in mind that we will only be concerned with cases where *tul* and *tung* are associated with a single noun.

## 2. Background: Li (1999) and Ochi (2012)

In this section, I will introduce Li's (1999) and Ochi's (2012) analysis of *men* and *tachi* in some detail to build the necessary background for the discussion in subsequent sections.

First, Chinese and Japanese (as well as Korean) use numerals and classifiers (NC) for counting. Since the languages in question have plural suffixes as well, it is naturally expected that plural suffixes and NCs (when indicating numbers larger than one) can co-occur. Interestingly, Li (1999: 52-53) observes that *men* cannot co-occur with an NC when attached to a common noun, while it can when attached to a proper noun.<sup>3</sup> It is important to notice that in the latter case, ambiguity disappears (cf. (2a)).

- (6) a. wo qing san-ge xuesheng(\*-men) chifan.  
 I invite 3-CL student-PL eat  
 'I invited (the) three students for a meal.'
- b. wo qing Xiao Qiang-men san-ge (ren) chifan.  
 I invite X.Q.-PL 3-CL person eat  
 'I invited Xiao Qiang and two others for a meal.'
- (collective)
- \* 'I invited the three people all named Xiao Qiang for a meal.'
- (plural)

On the other hand, Ochi (2012) notes that no such restriction applies when *tachi* attaches to a common noun, i.e., *tachi*-marked common nouns can co-occur with an NC, while *tachi* on proper nouns behaves like *men*. Note the disambiguation in (8)

<sup>3</sup> Note that in (6), the position of the relevant nouns differ. That is, the common noun *xuesheng* 'student' comes after the NC, while the proper noun *Xiao Qiang* comes before the NC. This is because their base-generated positions are different. To complete the paradigm, consider also the data below. I will come back to this shortly.

- (i) \*wo qing pengyou-men san-ge (ren) chifan.  
 I invite friend-PL 3-CL person eat  
 'I invited three friends for a meal.'
- (ii) \*wo qing san-ge Xiao Qiang-men chifan.  
 I invite 3-CL X.Q.-PL eat  
 'I invited Xiao Qiang and two others for a meal.' (collective)  
 'I invited 3 people all named Xiao Qiang.' (plural)

as well.

- (7) a. boku-wa san-nin-no gakusei-tachi-o maneita.  
       I-Top 3-CL-Gen student-PL-Acc invited  
       ‘I invited the three students for a meal.’  
       b. boku-wa gakusei-tachi san-nin-o maneita.  
       I-Top student-PL 3-CL-Acc invited  
       ‘I invited the three students for a meal.’
- (8) a. boku-wa Hanako-tachi san-nin-no jyosei-o maneita.  
       I-Top H.-PL 3-CL-Gen lady-Acc invited  
       ‘I invited Hanako and two other ladies.’ (collective)  
       \*‘I invited the three ladies all named Hanako.’ (plural)  
       b. boku-wa Hanako-tachi jyosei san-nin-o maneita.  
       I-Top H.-PL lady 3-CL-Acc invited  
       ‘I invited Hanako and two other ladies.’ (collective)  
       \*‘I invited the three ladies all named Hanako.’ (plural)

As pointed out above, it is crucial to note that only a collective reading is allowed when an NC co-occurs with *men* or *tachi* on a proper noun, as in (6b) and (8a, b). However, as shown in (9), a *tachi*-marked proper noun only yields a plural reading when it follows an NC, unlike those in (8).<sup>4</sup>

- (9) san-nin-no Hanako-tachi  
       3-CL-Gen H.-PL  
       \*‘Hanako and two others’ (collective)  
       ‘three people all named Hanako’ (plural)

Given this, the crucial components of Li’s and Ochi’s analyses of *men* and *tachi* can be summarized as follows:

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<sup>4</sup> Note that (9) also contrasts with (ii) in footnote 3, where a proper noun following an NC is ungrammatical under either reading.

- (10) a. Nouns are base-generated in different positions:
- (i) A common noun is base-generated in N.
  - (ii) A proper noun may be base-generated in D or N: when in D, it is a referential expression; when in N, it is interpreted like a common noun, denoting an entity with the characteristics typically ascribed to that proper noun.<sup>5</sup>
- b. When the plural suffix is attached to an element in the domain of D, it yields a collective reading; when attached to an element in N, it yields a plural reading.
- c. A PL-marked element must be licensed by D.<sup>6, 7</sup>

Let's see how these proposals capture the relevant facts.

First, the fact that *men* and *tachi* induce an ambiguity when attached to a proper noun, as shown in (2), is attributed to the two options for the base-generation of proper nouns. Thus, under a plural reading, the PL-marked proper noun is

<sup>5</sup> As evidence for this claim, Li (1999: 95, fn.13) notes that there is a difference concerning the possibility of proper nouns combining with an article or a restrictive modifier. For instance, when a proper noun denotes an entity with the typical characteristics associated with the proper noun, it can be used with a restrictive modifier or an article just like common nouns. Li adduces examples like *the future King Henry IV*, *the former Jacqueline Bouvier*, and *Bill Clinton is the same Bill Clinton that he's always been* to this effect. She argues that such proper nouns function like common nouns, generated in N, while proper nouns base-generated in D do not allow a restrictive modifier, just like a pronoun in D.

<sup>6</sup> Li's proposal on this point is based on the observation that the attachment of *men* forces the resulting nominal expression to be definite. Kurafuji (2004) argues that the same property is observed for *tachi* in Japanese.

(i) a. boku-wa kodomo-o sagashiteiru.

I-Top child-Acc look.for

'I'm looking for some/the child(ren).'

b. boku-wa kodomo-tachi-o sagashiteiru.

I-Top child-PL-Acc look.for

'I'm looking for some specific group of children.'

However, Ochi points out that there is some controversy concerning the availability of the definiteness effect in the literature on Japanese. Similarly, it is not so clear if the definiteness effect obligatorily holds in equivalent constructions in Korean either, although researchers like Kim (2007, 2009) suggest that it does. In this paper, I follow Ochi (2012: 52, fn7) and assume that what is important is not the availability of a definite interpretation of PL-marked elements per se, but the fact that there is a dependency between the plural suffix and a higher functional head such as D.

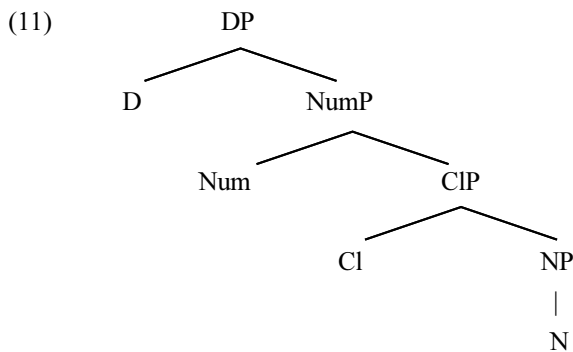
<sup>7</sup> There are differences in how Li and Ochi implement the licensing relation between a plural suffix and D. Li argues that it involves overt N-to-D movement, while Ochi argues that it can be done covertly by feature checking. See below for further discussion.

base-generated in N, while it is base-generated in the domain of D, i.e.,  $D^0$ , [Spec, DP], or DP-adjoined position, under a collective reading.

Second, concerning the incompatibility between an NC and a *men*-marked common noun, as shown in (6a), Li argues that head-movement of the *men*-marked common noun from N to D is blocked by the intervening NC head due to the head-movement constraint (HMC)<sup>8</sup>, which leads to a failure of the requirement in (10c). (See the structure in (11) below.)

Next, concerning the lack of an ambiguity in (6b) (unlike those cases in (2)), it is argued that the proper noun does not have the option of base-generation in N for a plural reading, because that will eventually lead to a violation of HMC, similarly to (6a). Thus, the proper noun in (6b) is base-generated in D, yielding a collective reading only. The same account extends to the two examples in footnote 3. In a similar vein, Ochi argues concerning the lack of an ambiguity in (9) that given the word order, the *tachi*-marked proper noun is base-generated in N, yielding a plural reading.

Concerning the behavior of *tachi* in (7), which is different from that of *men* in (6a), it is necessary to look into the structural difference between NC constructions in Chinese and Japanese. That is, Li argues that NC constructions in Chinese have the structure in (11). Here, N movement to D is expected to be blocked by the intervening NC heads, as suggested above.

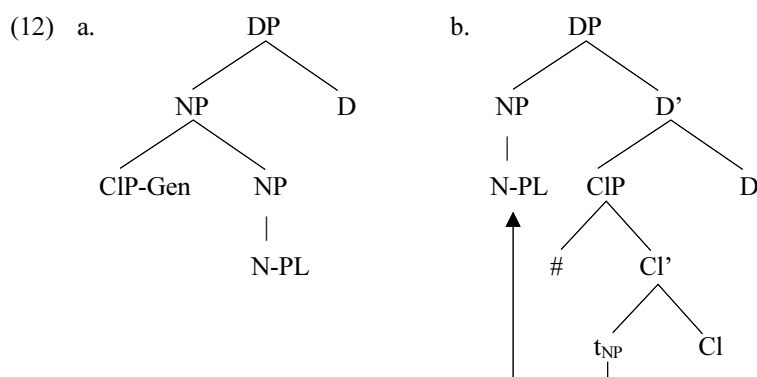


<sup>8</sup> HMC indicates that movement of heads take place in a strictly cyclic and local fashion.

(i) Head Movement Constraint

Head movement may not skip intermediate heads. (Travis 1984)

On the other hand, Ochi argues that the structure of NC constructions in Japanese are different from that in (11). In particular, for genitive-marked prenominal NCs, as in (7a), Ochi postulates the structure in (12a), where there is no intervening head that would block covert feature checking. For postnominal NCs, as in (7b), Ochi assumes the derivation in (12b), where NP, which bears the plural suffix *tachi*, moves to [DP, Spec] for an independent reason – that is, to derive the postnominal NC construction. As a result, the plural suffix *tachi* ends up in [DP, Spec] as a free rider and is licensed by D as per (10c).



Finally, concerning the lack of an ambiguity in (8), Ochi argues that given the word order, the *tachi*-marked proper nouns there are base-generated in [DP, Spec], accounting for the availability of a collective reading only.

### 3. Properties of the *tung* phrase

In this section, I will turn to the properties of the *tung* phrase in Korean. I will focus on presenting a set of crucial facts about *tung* here and postpone their analysis to the next section.

First, as mentioned in Section 1, the regular plural suffix in Korean is *tul*. Unlike *men* and *tachi*, a collective reading is unavailable for *tul* when it is attached to a proper noun. Rather, it consistently yields a plural reading regardless of the type of the noun.



- (13) John-tul  
 J.-PL  
 \*‘John and others.’ (collective)  
 ‘a group of people all named John’ (plural)

To obtain the desired collective reading, a different element, namely, *tung*, should be used. Crucially, the *tung* phrase in (14) does not allow a plural reading. Thus, concerning the plural and collective dichotomy of the interpretation of plural expressions, *tul* and *tung* show complementarity.

- (14) John tung  
 J. tung  
 ‘John and others.’ (collective)  
 \*‘a group of people all named John.’ (plural)

Second, when attached to a proper noun, *tung* can co-occur with an NC and an additional host NP, just like *men* and *tachi* in (6b) and (8). Crucially, such sentences only allow a collective reading.<sup>9</sup> I repeat the relevant *men* and *tachi* sentences in (15). The corresponding *tung* sentences are given in (16).

- (15) a. wo qing Xiao Qiang-men san-ge (ren) chifan.  
 I invite X.Q.-PL 3-CL person eat  
 ‘I invited Xiao Qiang and two others for a meal.’  
 (collective)

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<sup>9</sup> In the most natural English translation of such sentences, the *tung* phrase may translate into something like ‘including X’. For instance, (16a) can be plausibly translated as ‘I invited three ladies including Yenghi.’ However, there is reason to believe that *tung* itself is not to be directly equated with *including* in English. First, a more literal counterpart of *including* exists in Korean – namely, *phohamha(nu)n* ‘including’. Just like *including*, *phohamha(nu)n* is based on the transitive verb *phohamhata* ‘to include’. It also retains its case-assigning ability. Thus, as with *including*, a phrase combined with *phohamha(nu)n* should be assigned accusative case, a property that *tung* does not have. Furthermore, *tung* and *phohamha(nu)n* can even co-occur.

(i) na-nun Johntung-ul phohamhan haksayng sey-myeng-ul chotayha-ess-ta.  
 I-Top J. tung-Acc including student 3-CL-Acc invite-Past-Dec  
 ‘I invited three students including John and others.’

Given this, I assume that *tung* does not directly correspond to *including* in English, even though I will be translating it as ‘including X and others’ in some examples to make the interpretation of the example more easily accessible.

\*‘I invited the three people all named Xiao Qiang for a meal.’

(plural)

b. boku-wa Hanako-tachi san-nin-no jyosei-o maneita.

I-Top H.-PL 3-CL-Gen lady-Acc invited

‘I invited Hanako and two other ladies.’ (collective)

\*‘I invited the three ladies all named Hanako.’ (plural)

c. boku-wa Hanako-tachi jyosei san-nin-o maneita.

I-Top H.-PL lady 3-CL-Acc invited

‘I invited Hanako and two other ladies.’ (collective)

\*‘I invited the three ladies all named Hanako.’ (plural)

(16) a. na-nun Yenghi tung sey-myeng-uy yeca-lul chotayha-ess-ta.

I-Top Y. tung 3-CL-Gen lady-Acc invite-Past-Dec

‘I invited Yenghi and two other ladies.’ (collective)

\*‘I invited the three ladies all named Yenghi.’ (plural)

b. na-nun Yenghi tung yeca sey-myeng-lul chotayha-ess-ta.

I-Top Y. tung lady 3-CL-Acc invite-Past-Dec

‘I invited Yenghi and two other ladies.’ (collective)

\*‘I invited the three ladies all named Yenghi.’ (plural)

Third, the *tung* phrase cannot be separated from its host.

(17) a. na-nun Chelswu tung haksayng sey-myeng-ul chwuchenha-ess-ta.

I-TopC. tung student 3-CL-Acc recommend-Past-Dec

‘I recommended Chelswu and two other students.’

b. \*Chelswu tung na-nun haksayng sey-myeng-ul chwuchenha-ess-ta.<sup>10</sup>

C. tung I-Top student 3-CL-Acc recommend-Past-Dec

(18) a. na-nun Kim tung haksayng sey-myeng-ul phathi-ey chotayha-ess-ta.

I-Top K. tung student 3-CL-Acc party-to invite-Past-Dec

<sup>10</sup> An anonymous reviewer points out that to him/her, examples like (17b) and (18b) do not sound entirely ungrammatical. I agree that there is some speaker variation concerning these data (and possibly others as well). However, it is important that all the speakers I have consulted agree that there is a clear contrast between the (a) and (b) examples here, to the effect that the (b) examples are much degraded when compared to the (a) examples.

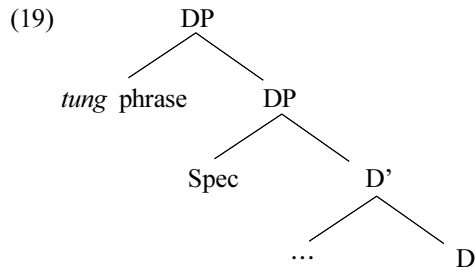
‘I invited Kim and two other students to the party.’

b. ??na-nun Kim tung phathi-ey haksayng sey-myeng-ul hotayha-ess-ta.

I-Top K. tung party-to student 3-CL-Acc invite-Past-Dec

#### 4. Analysis

Given the properties observed above, I propose an analysis of the *tung* phrase in this section. More specifically, I suggest that the *tung* phrase is merged with the highest node within the extended nominal projection, which I assume is DP.<sup>11</sup> This is shown below.



Let us see how this analysis captures the observations made above.

First, recall that according to Li (1999) and Ochi (2012), a plural expression receiving a collective reading should be in the domain of D. Given the analysis in (19), the fact that the *tung* phrase invariably yields a collective reading can be captured straightforwardly.

Second, the current analysis also captures correctly the fact that the *tung* phrase cannot be separated from its host, i.e., that they are a constituent. (See the data in (17) and (18).) In a similar vein, examples like (20) provide additional support for the current analysis.

<sup>11</sup> There are two ways to be merged with the highest node of DP, i.e., as a DP-adjunct or as an (outer) specifier of DP. The distinction depends on one's theory of phrase structure, a question that I will not be concerned with here. (See Fukui 1995, Kayne 1994, Ura 1996, among others, for relevant discussion.) What is important for our purposes is that the *tung* phrase be the highest element that marks the left boundary of DP. For expository convenience, I will assume that the *tung* phrase is adjoined to DP in what follows.

- (20) a. na-nun [Chelswu tung namhaksayng sey-myeng]-kwa  
           I-Top C.           tung male.student 3-CL-and  
           [Yenghi tung yehaksayng sey-myeng]-ul chwuchenha-ess-ta.  
           Y.       tung female.student 3-CL-Acc       recommend-Past-Dec  
           ‘I recommended three male students including Chelswu and others  
           and three female students including Yenghi and others.’
- b. nay-ka chwuchenhan kes-un [Chelswu tung namhaksayng  
           I-Nom recommended Comp-Top C.       tung male.student  
           sey-myeng]-i-ta.  
           3-CL-Cop-Dec  
           ‘It is three male students including Chelswu and others that I recommended.’

Third, the fact that the *tung* phrase can co-occur with an NC and an additional host NP is consistent with the structure in (19). As is standardly assumed by many researchers (e.g., An 2016, Huang and Ochi 2014, Kawashima 1998, Ochi 2012, 2015, Watanabe 2006, 2008, among many others), NC constructions involve layers of functional projections and iterated applications of movement within the extended nominal projection. I assume that DP is the highest category in the extended nominal projection and that it dominates all the necessary layers of additional functional projections under it. Simply put, I assume that there is enough space to host all the elements relevant for deriving NC constructions.<sup>12</sup>

Concerning the third point above, note that it is also possible to use a *tung* phrase without an additional NP and an NC, i.e., the *tung* phrase can stand alone, as shown in (21).

- (21) John tung-i hakkyo-ey an wa-ss-ta.  
       J.   tung-Nom school-to not come-Past-Dec  
       ‘John and others did not come to school.’ (collective)  
       \*‘A group of students/people all named John did not come to school.’ (plural)

It is also possible to use a *tung* phrase with an NC but without a host NP.

<sup>12</sup> I will discuss the structure of NC constructions in more detail in Section 5.2. For further details, see also the works cited in the main text.

- (22) John *tung*    ney-myeng-i   hakkyo-ey   an   wa-ss-ta.  
       J.    *tung*    4-CL-Nom    school-to    not   come-Past-Dec  
       ‘John and three others did not come to school.’                    (collective)  
       \*‘Four students/people all named John did not come to school.’ (plural)

I suggest that in these cases, the *tung* phrase is adjoined to a DP based on a null pronoun. The NC in (22) is associated with the null pronoun, not directly with the *tung* phrase there.

Finally, the current analysis makes a prediction about the linear order of prenominal elements. That is, given that the *tung* phrase is merged with the highest node of DP, it is predicted that it precedes other prenominal modifiers. The prediction is borne out.

- (23) a. [Kim *tung*]    [Yenghi-uy]   chinkwu   sey-myeng-i  
           K.    *tung*    Y.-Gen    friend    3-CL-Nom  
           ‘Three of Yenghi’s friends including Kim and others’  
       b. \*[Yenghi-uy]   [Kim *tung*]   chinkwu   sey-myeng-i  
           Y.-Gen            K.    *tung*    friend    3-CL-Nom
- (24) a. [Kim *tung*]   [ttokttokhan]   haksayng   sey-myeng-ul  
           K.    *tung*    smart            student    3-CL-Acc  
           ‘Three smarts students including Kim and others’  
       b. \*[ttokttokhan]   [Kim    *tung*]   haksayng   sey-myeng-ul<sup>13</sup>

<sup>13</sup> Originally, I intended *ttokttokhan* ‘smart’ in (24) to be an example of a prenominal adjective. But, it is worth mentioning that prenominal adjectives are also often regarded as relative clauses in Korean. Given this, an anonymous reviewer points out that not all examples of the structure [relative clause]-[*tung* phrase]-DP, as in (24b), are ungrammatical, as shown below.

(i) [aikwyu-ka 150-i    nemul   cengtolo ttokttokhan] [Kim *tung*] sey-myeng-uy haksayng  
       IQ-Nom    150-Nom go.over degree    smart            K.    *tung*    3-CL-Gen    student  
       ‘(roughly) three smart students including Kim and others whose IQs are over 150.’

There are a couple of things to note about (i). First, the relative clause in (i) can modify either Kim alone or the whole DP denoting the three students including Kim. In the latter case, a pause is inserted after the relative clause, while there is no such pause in the former. In (24b), placing a pause after *ttokttokhan* leads to the interpretation where it modifies the whole DP, as in (i), and the example is unacceptable. (The interpretation in question is obtained by (24a).) But, without a pause after *ttokttokhan*, in which case *ttokttokhan* only modifies Kim, (24b) sounds fine. (Of course, in this case, *ttokttokhan* would be part of the *tung* phrase itself.) This indicates that there is a difference between *ttokttokhan* in (24b) and the relative clause in (i). There are several possibilities. It could be that

smart                      K.            tung student            3-CL-Acc

- (25) a. [Kim tung] [sey-myeng-uy] haksayng-i  
           K.    tung    3-CL-Gen            student-Nom  
           ‘three students including Chelswu and others’  
       b. \*[sey-myeng-uy] [Kim    tung] haksayng-i  
           3-CL-Gen            K.            tung student-Nom

## 5. Implications

I proposed an analysis of *tung* in the previous section. In this section, I will discuss some implications and consequences of the current analysis, focusing largely on two issues here.

### 5.1 *Tul*

Let me discuss a couple of properties of the plural suffix *tul* in Korean in comparison with *men* and *tachi*.<sup>14</sup>

First, Li (1999) and Ochi (2012) note that *men* and *tachi* are restricted to nouns denoting a human (e.g., *\*shu-men*, *\*hon-tachi* ‘books’). *Tul* does not seem to have this restriction (e.g., *catongcha-tul* ‘cars’, *chayk-tul* ‘books’).

Second, *tul* behaves like *tachi* (and unlike *men*) in that it can co-occur with an NC when attached to a common noun. (cf. (6a), (7))

- (26) a. na-nun    sumwu-myeng-uy    haksayng-tul-ul    chotayha-ess-ta.  
           I-Top    20-CL-Gen            student-PL-Acc    invite-Past-Dec

*ttoktokhan* is an adjective in (24b) and that such adjectives are adjoined lower than *tung* phrases, which was the original interpretation of the example. Alternatively, it could be that *ttoktokhan* is a kind of relative clause and that relative clauses can be adjoined to different positions depending on their length/weight. Further research is necessary to tease apart these possibilities.

<sup>14</sup> Concerning *tul*, the aspect of its interpretation that has received the most attention in the literature is its distributivity, as an anonymous reviewer points out. It should be borne in mind that the current paper is not concerned with this (and any other) aspect of *tul* and that it focuses especially on its behavior with respect to the plural/collective dichotomy. For other aspects of the behavior of *tul*, I refer the reader to works like Kang 1994, Kim 2007, 2009, Nam and Ko 1993, Park 2008, among others, and references therein.

‘I invited twenty students.’

- b. na-nun haksayng-tul sumwu-myeng-ul chotayha-ess-ta.  
 I-Top student-PL 20-CL-Acc invite-Past-Dec  
 ‘I invited twenty students.’

However, *tul* behaves differently from *tachi* (or *men* for that matter) in that it cannot be used with a proper noun under a collective reading. Only a plural reading is available in that case.<sup>15</sup> This is shown in (27).

- (27) na-nun Chelswu-tul-ul manna-ss-ta.  
 I-Top C.-PL-Acc meet-Past-Dec  
 ‘I met several people all named Chelswu.’ (plural)  
 \*‘I met several people including Chelswu and others.’ (collective)

Furthermore, (28) shows that *tul*-marked proper nouns can also co-occur with an NC under a plural reading and that they consistently disallow a collective reading. (cf. (6b), (8))

- (28) a. na-nun sey-myeng-uy Chelswu-tul-ul manna-ss-ta.  
 I-Top 3-CL-Gen C.-PL-Acc meet-Past-Dec  
 ‘I met three people all named Chelswu.’ (plural)  
 \*‘I met three people including Chelswu and others.’ (collective)  
 b. na-nun Chelswu-tul sey-myeng-ul manna-ss-ta.  
 I-Top C.-PL 3-CL-Acc meet-Past-Dec  
 ‘I met three people all named Chelswu.’ (plural)  
 \*‘I met three people including Chelswu and others.’ (collective)  
 c. na-nun Chelswu-tul-ul sey-myeng manna-ss-ta.  
 I-Top C.-PL-Acc 3-CL meet-Past-Dec  
 ‘I met three people all named Chelswu.’ (plural)  
 \*‘I met three people including Chelswu and others.’ (collective)

The crucial observation here is that *tul* consistently gives rise to a plural

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<sup>15</sup> As discussed above, to induce a collective reading, *tung* should be used instead of *tul*.

reading only and that its occurrence is not affected by the presence of an NC.

Given the analyses by Li and Ochi, the lack of a collective reading for the *tul*-marked common nouns and proper nouns in the examples above indicates that they are all base-generated in N. It is not surprising that common nouns are base-generated in N, but the lack of a collective reading for *tul*-marked proper nouns indicates that they too do not have the option of base-generation in the domain of D when combined with *tul*. Recall that in (10a<sub>ii</sub>), it is suggested that a proper noun is base-generated in D when interpreted as a referential expression, while those interpreted as a common noun are base-generated in N. Given that proper nouns in Korean can in principle behave as regular referential expressions, we cannot say that proper nouns in Korean are always base-generated in N. Rather, it is reasonable to assume that it is the property of *tul*, not the proper noun itself that leads to base-generation in N.

Concerning the lack of an HMC effect, I suggest that the licensing of *tul* simply involves c-command by D. Thus, no head movement or covert feature checking is needed and, hence, no HMC effect is expected. As long as a *tul*-marked element is c-commanded by D, it is properly licensed and induces a plural reading. This is a point of difference between *tul* on the one hand and *men* and *tachi* on the other, to the effect that the latter two are subject to more stringent licensing conditions, while the former is subject to a more lenient condition.

Recall that *tul* and *tung* show complementarity concerning the dichotomy between plural and collective readings. Given the proposal that *tung*-phrases are base-generated in DP-adjoined position, I suggest that the complementarity has to do with the c-command requirement by D. That is, if a PL-marked element is base-generated in a position c-commanded by D, it surfaces with the suffix *tul* and receives a plural reading, while it surfaces with *tung* and receives a collective reading if it is base-generated outside of the c-command domain of D.

## 5.2 NC constructions

In the literature on NC constructions, it is standardly assumed that in constructions like (29a), the NC and its host NP form a constituent, while those in constructions like (29b) do not.<sup>16</sup> Examples like (30) are often adduced to support this.



- (29) a. na-nun haksayng tases-myeng-ul phathi-ey chotayha-ess-ta. (PNC)  
 I-Top student 5-CL-Acc party-to invite-Past-Dec  
 ‘I invited five students to the party.’  
 b. na-nun haksayng-ul tases-myeng phathi-ey chotayha-ess-ta. (FNC)  
 I-Top student-Acc 5-CL party-to invite-Past-Dec  
 ‘I invited five students to the party.’
- (30) a. \*na-nun haksayng phathi-ey tases-myeng-ul chotayha-ess-ta. (PNC)  
 I-Top student party-to 5-CL-Acc invite-Past-Dec  
 ‘I invited five students to the party.’  
 b. na-nun haksayng-ul phathi-ey tases-myeng chotayha-ess-ta. (FNC)  
 I-Top student-Acc party-to 5-CL invite-Past-Dec  
 ‘I invited five students to the party.’

Given this, it should be noted that there are two main lines of analysis of FNC in the literature. One group of researchers argues that FNC is derived by moving the host NP out of a larger nominal domain containing the NC, say, DP. Thus, FNC involves “stranding” of the NC. The other group of researchers argues that the NC is “base-generated” separately from the host NP.<sup>17</sup> (See An 2016, Bošković 2004, Chung 2002, Fitzpatrick 2006, Huang and Ochi 2014, Ishii 1999, Kang 2002, Kawashima 1998, Nakanishi 2008, Ochi 2012, 2015, Park 2009, Shi 2000, Sportiche 1988, Watanabe 2006, 2008, among many others.) Interestingly, the behavior of the *tung* phrase has significant implications for the structure of FNC.

First, recall that the *tung* phrase can occur in NC constructions, as shown in (31).

- (31) a. na-nun Yenghi tung haksayng tases-myeng-ul phathi-ey (PNC)  
 I-Top Y. tung student 5-CL-Acc party-to  
 chotayha-ess-ta.  
 invite-Past-Dec  
 ‘I invited to the party five students including Yenghi and others.’

<sup>16</sup> I will refer to the type of NC construction in (29a) as the postnominal NC construction (PNC). NC constructions like (29b) are often referred to as the floating NC construction (FNC).

<sup>17</sup> In each group, there are further differences as to how such extraction or base-generation is implemented. I will not go into details here.

- b. na-nun Yenghi tung haksayng-ul tases-myeng phathi-ey (FNC)  
 I-Top Y. tung student-Acc 5-CL party-to  
 chotayha-ess-ta.  
 invite-Past-Dec  
 ‘I invited to the party five students including Yenghi and others.’

In (31a), the occurrence of the *tung* phrase is not surprising, because the host NP and the NC form a constituent, as pointed out above. I assume that the *tung* phrase is adjoined to the DP containing the host NP and the NC.

In (31b), on the other hand, the occurrence of the *tung* phrase is curious. Suppose tentatively that we adopt the stranding analysis of FNC. If the host NP moves out of DP, our analysis of the *tung* phrase will predict that the host NP precedes the *tung* phrase, which is contrary to what we see in (31b). Interestingly, however, such a sentence is actually possible, as shown in (32). Thus, we seem to be dealing with a contradictory situation here.

- (32) (?)na-nun haksayng-ul Yenghi tung tases-myeng phathi-ey chotayha-ess-ta.  
 I-Top student-Acc Y. tung 5-CL party-to invite-Past-Dec  
 ‘I invited to the party five students including Yenghi and others.’

One of the possibilities that comes to mind is that the extraction of the host NP is optional. If that is correct, then perhaps, when the host NP follows the *tung* phrase, as in (31b), there is no extraction, while there is when the order is reversed, as in (32). However, the situation becomes more complicated if we consider a sentence like (33). Here, the NC is separated from the host NP by an intervening element, which makes it necessary to posit the extraction of the host NP under the stranding analysis (cf. (30b)). Thus, it is not sufficient to simply say that the host NP stays within DP when it follows the *tung* phrase.

- (33) (?)na-nun Yenghi tung haksayng-ul phathi-ey tases-myeng chotayha-ess-ta.  
 I-Top Y. tung student-Acc party-to 5-CL invite-Past-Dec  
 ‘I invited five students including Chelswu, Yenghi and others to the party.’

Given (33), one may also suspect that the *tung* phrase has the option of adjoining to the host NP, so that the *tung* phrase here has moved out of DP together with the host NP. However, in addition to the theory-internal motivation to adjoin the *tung* phrase to DP, as discussed above, I also showed in Section 4 that the *tung* phrase has to precede other prenominal elements. If NP-adjunction were a legitimate option for the *tung* phrase, we would expect the examples in (34) to be well-formed, contrary to fact.

- (34) a. \*[Yenghi-uy] [Chelswu tung] chinkwu sey-myeng-i  
           Y.-Gen C. tung friend 3-CL-Nom  
       b. \*[ttokttokhan] [Chelswu tung] haksayng sey-myeng-ul  
           smart C. tung student 3-CL-Acc  
       c. \*[sey-myeng-uy][Chelswu tung] haksayng-i  
           3-CL-Gen C. tung student-Nom

At this point, we almost seem to have hit a dead end under the stranding analysis. I conclude that the stranding analysis cannot account for all cases of FNC. Rather, I assume that at least some instances of FNC should be handled by the base-generation analysis. More specifically, I suggest that in those cases where an NC is clearly separated from its host NP, as in (30b) and (33), the NC is (part of) an adverbial base-generated separately from the host NP. On the other hand, when an NC is adjacent to its host NP, as in (29b) and (31b), it can be part either of a DP along with the host NP or of an adverbial separately from the host NP.

This means that FNC constructions are structurally ambiguous when the host NP and the NC are adjacent. If this is correct, the *tung* phrase in (33) is adjoined to the DP that contains just the host NP, while the NC is separately generated as part of an adverbial. In (31b), the *tung* phrase can be adjoined either to the DP containing the host NP and the NC or to the DP that contains just the host NP. Concerning (32), I suggest that it is *not* structurally ambiguous and that the only legitimate derivation for it is the one where the NC is generated as part of the DP that contains the host NP and the *tung* phrase. The host NP then undergoes further extraction from the DP, as was initially suggested above. The option of base-generating the NC separately from the host NP is not available here. If that were possible, the *tung* phrase would be adjoined to the DP that contains just the host NP, which will

eventually move out of the DP stranding the *tung* phrase. However, I believe such a derivation is not possible. Consider (35) to this effect.

- (35) a. na-nun [Chelswu-uy chayk-ul] sa-ss-ta.  
           I-Top C.-Gen book-Acc buy-Past-Dec  
           ‘I bought Chelswu’s book.’  
       b. \*[chayk-ul]<sub>i</sub> na-nun [Chelswu-uy t<sub>i</sub>] sa-ss-ta.  
           book-Acc I-Top C.-Gen buy-Past-Dec

(36) provides additional support for the suggestion above.<sup>18</sup> Here, given the intervening element, the NC should be base-generated separately from the host NP and the *tung* phrase should be adjoined to the DP that contains just the host NP, whose extraction is ruled out on a par with (35b).

- (36) ?\*na-nun haksayng-ul Yenghi tung phathi-ey tases-myeng chotayha-ess-ta.  
           I-Top student-Acc Y. tung party-to 5-CL invite-Past-Dec  
           ‘I invited five students including Chelswu, Yenghi and others to the party.’

In sum, the behavior of the *tung* phrase allows us to choose the appropriate analysis of FNC in Korean. When an NC is overtly separated from its host NP, it is base-generated as part of an adverbial. When the two are adjacent, the construction is potentially ambiguous between stranding and base-generation configurations. One additional note before closing this section is that it follows from the discussion above that in FNC, the NC and its host NP can in principle form a constituent, though they can also be separated by movement of the latter. (See An 2016, Chung 2002, Watanabe 2008, among others, for relevant discussion.)

<sup>18</sup> Speakers I have consulted vary concerning how degraded they judge (36) to be. However, they all agreed that there is a clear contrast between (31b), (32), (33) on the one hand and (36) on the other, to the effect that the latter is much worse than the former.

## 6. Conclusion

In this paper, I examined some expressions of plurality in Korean, namely, *tung* and *tul*, focusing largely on the former, which has not received any attention in the generative syntactic literature on Korean. Following the proposals by Li (1999) and Ochi (2012), I showed that these plural expressions behave differently from their Chinese and Japanese counterparts. I pointed out that *tung* and *tul* show complementarity with respect to the collective-plural dichotomy. I argued that these interpretive differences correlate with a difference in the structural status of the two elements in question. More specifically, the *tung* phrase is adjoined to (or is in the outer Spec of) DP, giving rise to a collective reading, while *tul* is attached to common nouns and proper nouns base-generated in N, inducing a plural reading. I also pointed out that the behavior of the *tung*-phrase has significant implications for FNC in Korean, the structure and derivation of which have been rather controversial. In particular, I argued that the behavior of *tung*-phrases provides evidence that the derivation of FNC can be ambiguous between stranding and base-generation when an NC and its host NP are adjacent, while it involves separate base-generation of the NC as part of an adverbial when it is clearly separated from its host NP, a conclusion which has been independently argued for by a number of researchers.

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Received: 2016. 03. 11.

Revised: 2016. 04. 18.

Accepted: 2016. 04. 18.