

Distributive plural marker *tul* and its structural licensing*

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Lee, Doo-Won. 2013. Distributive plural marker *tul* and its structural licensing. *Linguistic Research* 30(1), 67-92. Korean has a copied plural marker *-tul* (i.e., distributive plural marker, DPM), which looks like a plural morpheme in its form but does not denote genuine plurality of the element it is attached to since it is simply copied from the preceding plural marker. The DPM can be attached not only to a singular noun but also to a verb, adverb, whole verbal chunk or even complementizer, which inherently triggers distributivity, but resists genuine plurality. The licensor of DPMs is not always necessarily a subject but can be a c-commanding nominal. As for the shifted object licensing the DPM attached to the VP adverb, it carries discourse effect such as specificity or presupposed interpretation of distributivity, which induces it to move to the Spec of v*P. Hence, the shifted object c-commands and licenses the DPM attached to the VP adverb. The argument to which the typical distributive markers such as *-mata* ‘every’, *-ssik* ‘each’, or *hana hana* ‘one-by-one’ as well as the plural marker *-tul* are attached can be a licensor of the DPM. I put forward the observation that in the bi-clausal structure, the DPM attached to the embedded complementizer *-ko* as well as the matrix adverb is only licensed by the matrix distributive argument. As for the RTOed nominal, it is located in the matrix clause, which induces it to c-command and license the DPM attached to the complementizer and matrix adverb. Like the shifted distributive object, the RTOed argument to which the plural marker *-tul* is attached also carries discourse effect such as specificity and presupposed interpretation of distributivity, which induces the RTOed object to move to the Spec of v*P in the matrix clause. This set of facts leads us to suggest the condition that the DPM must be locally c-commanded and licensed by PRO, a trace, null argument (i.e, pro) or syntactic argument, which bears distributivity. (Korea National University of Transportation)

Keywords distributive plural marker (DPM), local c-command, licensing, RTOed nominal, distributivity, shifted object, specificity, presupposed interpretation

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1. Introduction

Traditionally, *-tul* has been considered as a plural marker (e.g., *-tul* on the subject position in (1)) (Kang 1994, Im 2000, Jun 2004, and many others). However, it has also been well known in the literature (Choe 1988, Yim 2002, Chung 2003, Park 2008, J. Lee 2012, among others) that Korean has a copied plural marker (e.g., any *-tul* other than the *-tul* attached to the subject in (1)), which looks like a plural morpheme in its form but does not denote genuine plurality of the element it is attached to since it is simply copied from the preceding plural marker. The copied marker *-tul* can be attached not only to a singular noun but also to a verb, adverb, whole verbal chunk or even complementizer, which inherently triggers distributivity, but resists plurality.¹

- (1) a. caney-tul ese-tul tule-tul wa swul han can-tul
 you-PM quickly-DPM enter-DPM come wine one glass-DPM
 hakeyna-tul.
 drink-DPM
 ‘You come in quickly and drink a glass of wine.’ (cf. C. Lee 2000)
- b. nam-haksayng-tul-un [ye-haksayng-tul-i
 male-student-PM-TOP female-student-PL-N
 cengcikha-yess-ta-ko]-tul mitnun-ta.
 be-honest-PST-COMP-DPM believe
 ‘Male students believe that female students were honest.’

The copied plural marker really assigns distributivity to the items it is attached to as in (1). The plural marker *-tul* is divided into two parts: “intrinsic *tul*”, which is *-tul* attached to the subject in (1) and “extrinsic *tul*”, which is *-tul* attached to other

¹ The morphological slot for plurality and distributivity differs, as far as the marker *-tul* is concerned, as shown in (i). The former is closer to the stem while the latter takes an exterior position to a case marker (cf. H. Lee 1991). Licensing the copied plural marker *-tul*, the nominal to which the plural marker *-tul* is attached is distributive. This is what the distributivity of *ai-mata* ‘child-each’ in (i) means, as will be shown in more detail.

(i) ai-tul-i/ai(-tul)-mata chayk-**tul**-ul-tul pat-ess-ta.
 child-PM-NOM/child-PL-every book-PM-ACC-DPM get-PST-DC
 ‘Every child got books.’

elements in (1) (An 2007). In this paper, I will call the former a plural marker (hereafter, PM) and the latter a distributive plural marker (hereafter, DPM) (cf. Moon 1995). The DPM means the multiple events and yields a distributive reading that each event maps to each entity in one-to-one correspondence. This paper will focus on the fact that the DPM in (1b) can be licensed by the matrix distributive (plural) subject, but not by the embedded subject, which induces the sentence not to be ambiguous, unlike J. Lee's (2012) observation.

According to Choe (1988), the DPM is licensed by a local plural subject, as shown in the examples in (1). Such a subjecthood condition is challenged by Yim (2002), who claims that the DPM is constrained by the event semantic notions of event distributivity and collectivity-internal distributivity (Yim 2002: 197). As for the example in (2c), it is interpreted as meaning that the teacher made each child go to *Busan* at a different time, which is event distributivity. The example in (2c) has a collectivity-internal distributivity as well. At this point, it is true if and only if the teacher sent the children, collectively, to *Busan*. J. Kim (2008) also claims that the licenser of the DPM is not always necessarily a subject but can be a c-commanding noun, as shown in (2).²

- (2) a. Chelswu-ka pwungsen-tul-ul khukey-tul
 -NOM balloon-PM-ACC largely-DPM
 pwule-cwu-ess-ta.
 blow-up-give-PST-DC
 ‘Chelswu blew up a balloon and gave it to someone.’
- b. Yenghi-ka chayk-tul-ul/un Chelswu-eykey
 -NOM book-PM-ACC/TOP -DAT
 thaykpay-lo-tul ponay-ss-ta.
 delivery service-with-DPM send-PST-DC
 ‘Yenghi sent Chelswu books by delivery service.’
- c. sensayngnim-i ai-tul-ul pusan-ey-tul ponay-ss-ta.
 teacher-NOM child-PM-ACC Busan-to-DPM send-PST-DC
 ‘A teacher sent children to Busan.’

² As an anonymous reviewer points out, one may judge the examples in (2) to be out unless the elements in question undergo object shift to the spec of v*P to get presupposed interpretation of distributivity. In fact, this is what I want to show in this paper.

Apart from the controversy on judgment on the data, I will show that there are several reasons to believe that the DPM is locally licensed by the distributive (plural) argument with respect to the syntactic factor of the c-command condition.³ This is also what the examples in (3) show. Park and Sohn (1993) also show that the dative argument can be a licenser of the DPM.⁴

- (3) a. Chelswu-ka haksayng-tul-eykey(-nun) yenphil-ul
 -NOM student-PM-DAT(-TOP) pencil-ACC
 han calwu-ssik-tul cwu-ess-ta.
 one CL-each-DPM give-PST-DC
 ‘Chelswu gave students a pencil each.’ (Park and Sohn 1993)
- b. han ye-haksayng-i ai-tul-eykey(-nun)/un
 one female-student-NOM child-PM-DAT(-TOP)/TOP
 thaykpay-lo-tul senmwul-ul ponay-cwu-ess-ta.
 delivery service-with-DPM present-ACC send-give-PST-DC
 ‘A female student sent children a present by delivery service.’

Unlike J. Lee’s (2012) observation, the absence of the PM on the subject doesn’t always render the appearance of the DPM cancelled. It will be shown that a distributive argument to which the distributive markers such as *-mata* ‘every’, *-ssik* ‘each’, or *hana hana* ‘one-by-one’ in (4) as well as the plural marker *-tul* in the above examples are attached can be a licenser of the DPM.

- (4) a. kwukka-eyse canghaksayng-mata mikwuk-ey-tul
 country-in scholarship-student-each America-to-DPM

³ As Chung (2003) points out, it can be said that the whole verbal chunk including the DPM *-tul* in (1a) is inserted under the V-node, and later it goes up to the appropriate functional categories to check the morphological endings along with the lines of Chomsky (1995), which induces the c-command condition to be maintained.

⁴ Even when the plural subject such as *kutul-un* ‘they-TOP’ appears instead of the singular subject in (2) and (3), the DPM can be licensed by any c-commanding distributive argument. The *nun*-marked dative arguments in (3) undergo movement to shifted position (i.e., spec of v*P) to get presupposed interpretation, as will be shown. Hence, the DPM is c-commanded by the distributive licenser. Then, how about the dative arguments without the *nun*-marker in (3)? As an anonymous reviewer brings to mind an approach, they also move to the shifted position to get presupposed interpretation of distributivity, which licenses the DPM.

ponay-cwu-ess-ta.

send-give-PST-DC

‘The country sent each scholarship student to America.’

- b. sensayngnim-i ai-hana-hana-lul pusan-ey-tul ponay-ss-ta.
 teacher-NOM child-one-by-one-ACC Busan-to-DPM send-PST-DC
 ‘A teacher sent children to Busan.’

Finally, we will need to note that while the so-called RTO construction in (5b) is good, the general bi-clausal structure in (5a) is much odder. Focusing on the contrast between the examples in (5), I will delve into why there arises such a contrast and how the DPM is licensed by the RTOed argument.

- (5) a. ?*han nam-haksayng-un [_{CP} **ku ye-haksayng-tul-i**
 one male-student-TOP that female-student-PM-NOM
 cengcikhata-ko]-tul mitunta.⁵
 be-honest-COMP-DPM easily believe
 ‘A male-student easily believes that the female students are honest.’
- b. han nam-haksayng-un **ku ye-haksayng-tul-ul**
 one male-student-TOP female-student-PM-NOM
 cengcikhata-ko-tul mitunta.
 be-honest-COMP-DPM easily believe
 ‘A male-student easily believes that female students are honest.’

⁵ Under J. Lee’s (2012) system, the bi-clausal structure in (5a), where the lower subject is plural and the DPM is attached to the complementizer, is grammatical since the DPM is locally c-commanded and licensed by the lower plural subject on the Spec of FP above the DPM on C. At this point, note that, in fact, the embedded plural subject cannot be located in the Spec of FP since it is not assigned focus unlike J. Lee’s (2012) observation. If the sentence is really grammatical, however, the DPM might be licensed as follows. The whole verbal chunk including the complementizer *-ko* and DPM *-tul* in (5a) is inserted under the V-node (cf. H. Lee 1991), and later it goes up to the appropriate functional categories to check the morphological endings along with the lines of Chomsky (1995), which induces the embedded subject (i.e., licenser) to c-command the DPM before such a raising. Nevertheless, in fact, my informants and I take the example in (5a) to be unacceptable. Under my system, the DPM cannot be c-commanded and licensed by the embedded subject since the DPM is on the complementizer *-ko* base-generated on C. If it is true that there really exist such distinctive judgments on the example in (5a), the two parameters shown above could explain each grammaticality. However, the installment of the two parameters may be contradictory and controversial. In this paper, I only take the latter parameter, which induces the example in (5a) to be out.

Unlike in (1), there may arise a little controversy on the grammaticality of the data in (6). However, the point here is that the DPM in (7) cannot be licensed at all since it does not bear any preceding possible licenser. Note that the non-distributive subject cannot be a licenser of the DPM. The examples in (6), where the distributive plural object licenses the DPM, are acceptable.⁶

I argue that the plural objects in (6) undergo object shift from the preverbal position to the outside of VP, which induces the shifted objects to c-command and license the DPMs attached to *khukey* ‘largely’, *thaykpay-lo* ‘delivery service-with’, and *pusan-ey* ‘Busan-to’ adjoined to VP. At this point, we come to wonder where the shifted object is located. The shifted position is the Spec of v*P (cf. Chomsky 2005).⁷ At this stage, we need to note that as Kwon (2012) argues, a sentence stress usually falls in a preverbal position in Korean and thus a normal focus position must be close to verbs. That is, the preverbal position is a default focus one in the information structure. É. Kiss (1995) also argues that the default focus position in Hungarian is a preverbal position. What I want to say at this point is that a sentence stress falls in *pwungsen-tul-ul* ‘balloon-DPM-ACC’, *chayk-(tul)-ul* ‘book(-PM)-ACC’ and *ai(-tul)-ul* ‘child(-DPM)-ACC’ in (7) since it is in a default focus position. In this case, the DPM is not licensed since it is not c-commanded by the object in-situ. In general, a sentence stress (i.e., focus) in the preverbal position is not semantically interpreted as presupposed (Ertseheik-Shir 1997). On the other hand, the shifted object can lose its focal prominence and gains a specific or presupposed interpretation (Kwon 2012). In this vein, I observe that the shifted plural object in (6) carries the presupposed interpretation of distributivity. At this point, the accusative case-marked shifted object carries specificity as a discourse effect in the Spec of v*P, which as a result, induces the object to have the presupposed interpretation of distributivity in that position. That is, the object shift triggers the distributive argument in question to move to the Spec of v*P and carry specificity, which induces the argument to presuppose distributivity. At this stage, the argument in question c-commands the DPM adjoined to the VP.⁸ Here, we need to note that

⁶ One may judge that the DPM is only connected with the singular subject, which induces the sentence to be out. Despite this possible judgment discrepancy, however, there is a distinction between judgments on the examples in (6) and (7), which is the reason why I judge the sentences in (6) to be grammatical.

⁷ See Lee (2005) for more details of object shift in Korean.

⁸ See Lee (2012b: 125-28) for more information.

unless the presupposed (i.e., *nun*-marked) arguments undergo object shift to the Spec of v*P, the sentences are marginal at best as in (7) (cf. Lee 2005).⁹ Also note that the shifted object can license the DPM only when it presupposes distributivity. Thus, we can say that the shifted argument to Spec of v*P c-commands the DPM within the VP. Hence, the DPMs in (6) are licensed and the sentences are grammatical.

3. DPMs attached to complementizer *-ko*

3.1 Previous research: J. Lee (2012)

In this sub-section, I critically review J. Lee's (2012) observation that the DPM attached to the embedded complementizer *-ko* can be spread to the subject within its clause. Before proceeding, let's first consider how the DPM is licensed. The DPM must be structurally c-commanded by a plural noun within a local domain, as shown in (8).

- (8) a. wuli ai-ka kongwen-eyse(*-tul) phwungsen-ul(*-tul)
 we child-NOM park-in(*-DPM) balloon-ACC(*-DPM)
 sa-ss-ta.
 but-PST-DC
 'Our child bought a balloon in the park.'
- b. ye-haksayng-tul-i [han nam-haksayng-i
 female-student-PM-NOM one male-student-NOM
 kongwen-eyse(*-tul) phwungsen-ul(*-tul) sa-ss-ta-ko]
 park-in(*-DPM) balloon-ACC(*-PM) but-PST-DC-COMP

⁹ This can also be verified by the following contrast.

- (i) a. ??Chelswu-ka [_{VP} ppalli manhwa-chayk-tul-un ilk]-ess-ta.
 -NOM quickly comic-book-PL-TOP read-PST-DC
 'Chelswu read comic books quickly.'
- b. Chelswu-ka manhwa-chayk-tul-un [_{VP} ppalli ilk]-ess-ta.
 -NOM comic-book-PL-TOP quickly read-PST-DC
 'Chelswu read comic books quickly.'

The supposed position of the shifted object is the Spec of v*P between TP and VP. Note that *ppalli* 'quickly' is a VP-adverb.

malha-yess-ta.

say-PST-DC

‘Female students said that a male student bought a balloon in the park.’

- c. ku-nun [ai-tul-i chakha-ta-ko] yelsimhi(*-tul)
 he-TOP child-PM-NOM good-DC-COMP intently(*-DPM)
 cwucangha-yess-ta.
 argue-PST-DC
 ‘He argued intently that children are good.’

J. Lee (2012) observes that the contrast in the above examples forces the DPM (i.e., E(xtrinsic)-*tul*) to be c-commanded by a plural subject. However, the licenser of the DPM is not always necessarily a plural subject but can be a c-commanding distributive noun, as will be shown.

As for the bi-clausal structure, he further argues that the DPM attached to the embedded complementizer *-ko* in (9a) can be spread to the subject within its clause.

- (9) a. na-nun [ai-tul-i chakha-ta-ko]-tul mit-nun-ta.
 I-TOP child-PM-NOM good-DC-COMP-DPM believe-PRS-DC
 ‘I believe that children are good.’
 b. ai-tul-i [nay-ka chakha-ta-ko]-tul malha-n-ta.
 child-PM-NOM I-NOM good-DC-COMP-DPM say-PRS-DC
 ‘Children say that I am good.’

The DPM in (9b) is licensed by the c-commanding noun *ai-tul-i* ‘child-PM-NOM’. I observe that the example in (9a) sounds odd since the DPM cannot be c-commanded by the embedded subject *ai-tul-i* ‘child-PM-NOM’.¹⁰ However, J. Lee (2012) suggests an innovative analysis that in (9a), the licenser of the DPM, which is *ai-tul-i* ‘child-PM-NOM’, is focused. This triggers its movement to the Spec of Focus Phrase installed above the DPM attached to the CP. Hence, the DPM attached to the complementizer *-ko* is c-commanded and licensed by the embedded plural subject since it can be c-commanded by its licenser under such a system. In this

¹⁰ My informants really judge the example in (9a) to be much odder than the example in (9b).

paper, however, I observe that the DPM attached to the complementizer *-ko* in (9a) cannot induce the embedded plural subject to be focused, which doesn't drive any movement. To be brief, in (9a), the embedded plural subject cannot be assigned focus and doesn't further c-command the DPM attached to the complementizer *-ko* on C. The following example is also ungrammatical.¹¹

- (10) ?*han nam-haksayng-un [_{CP} ku ye-haksayng-tul-i
 one male-student-TOP that female-student-PM-NOM
 cengcikhata-ko]-tul mitunta.¹²
 be-honest-COMP-DPM believe
 'A male-student believes that the female students are honest.'

I observe that the DPM attached to the complementizer *-ko* cannot be spread to any category within the embedded clause. Such a sentence is ungrammatical when we

¹¹ As an anonymous reviewer points out, the example in (10) is much worse than the example in (9a). However, the sentences are both totally out when the embedded clause is finite as in (i), as will be discussed anew soon. To be brief, I judge the examples in (9a), (10) and (i) to be all out since the DPM attached to the complementizer cannot be licensed.

- (i) a. *na-nun [ai-tul-i chakha-yess-ta-ko]-tul mit-nun-ta.
 I-TOP child-PM-NOM good-PST-DC-COMP-DPM believe-PRS-DC
 'I believe that children were good.'
 b. *han nam-haksayng-un [_{CP} ku ye-haksayng-tul-i cengcikha-yess-ta-ko]-tul
 one male-student-TOP that female-student-PM-NOM be-honest-PST-COMP-DPM
 mitunta.
 believe
 'A male-student believes that the female students were honest.'

¹² As J. Lee (2012: 759) points out, the DPM can be attached to the quotative marker *-ko* as in the example (i), where the DPM is copied from the PM attached to the plural subject (of the preceding context elided in (iA)).

- (i) A: nwu-ka o-ass-ta-ko-tul? (echo question)
 who-NOM come-PST-DC-COMP-DPM
 'Who came?'
 B: ai-tul-i o-ass-ta-ko-tul.

The quotative marker *-ko* in (i) is different from the complementizer *-ko* in (10), which is base-generated on C. I suggest that the whole verbal chunk including the quotative marker *-ko* and DPM *-tul* in (i) is inserted under the V-node. At this point, the DPM is locally c-commanded and licensed by the plural subject as in (iB). Afterwards, the verbal chunk goes up to the appropriate functional category.

have a non-distributive subject in the matrix clause (H. Yoon 2005: 390-91, fn.3, Moon 1995: 359).

When the matrix and embedded subjects are both plural as in (11), the sentence is ambiguous under J. Lee's (2012) system in the sense that either the matrix or embedded subject can be a licenser of the DPM.

- (11) *nam-haksayng-tul-un* [ye-haksayng-tul-i
 male-student-PM-TOP female-student-PM-NOM
cengcikhata-ko]-tul mitunta.
 be-honest-COMP-DPM believe
 'Male-students believe that female students are honest.'

However, I observe that in (12), the underlined DPM attached to the complementizer *-ko* refers to the distributivity of the underlined matrix subject instead of the female students in the embedded subject position. In short, the sentence is not ambiguous.¹³

- (12) *nam-haksayng-tul-un* [ye-haksayng-tul-i
 male-student-PM-TOP female-student-PM-NOM
cengcikha-yess-ta-ko]-tul mitunta.
 be-honest-PST-COMP-DPM believe
 'Male-students believe that female students were honest.'

We need to note that under my system, while the matrix plural subject c-commands the DPM attached to the complementizer *-ko*, the embedded plural subject doesn't,

¹³ An anonymous reviewer points out that once a focus is given to the embedded subject in (11), the sentence is really ambiguous, as J. Lee judges. However, I observe that the DPM attached to the complementizer *-ko* in (11) cannot be licensed by the embedded subject, as shown in (10), which induces the sentence not to be ambiguous. If the sentence in (11) is really ambiguous, the passivized embedded finite clause in (i) should be ambiguous, contrary to the fact.

- (i) [ye-haksayng-tul-i cengcikha-yess-ta-ko]-tul nam-haksayng-tul-eyuyhay mitecinta.
 female-student-PM-N be-honest-PST-COMP-DPM male-student-PM-by be believed
 'That female students were honest was believed by the male-students.'

Nevertheless, the DPM attached to the complementizer *-ko* tends to be more easily licensed by the focused plural subject in the non-finite clause than in the finite clause. This seems to be what the anonymous reviewer points out. I will leave this matter open.

because it stays in situ (i.e., in the embedded Spec-T). At this point, the lower subject in (12) doesn't bear focus.¹⁴ Thus, the sentence is unambiguous. Accordingly, we can say that as the DPM attached to the adverb in (13a) copies the plural marker attached to the matrix subject, so does the DPM attached to the complementizer *-ko* in (12). That is, the DPM attached to the complementizer *-ko* in (12) or matrix adverb in (13a) is only associated with the matrix distributive subject. Hence, in fact, the examples in (9a), (10) and (13b) are all out since the DPM cannot be c-commanded and licensed by its compatible licenser.¹⁵

- (13) a. nam-haksayng-tul-un [ye-haksayng-tul-i cengcikhata-ko]
 male-student-PM-TOP female-student-PM-NOM be-honest-COMP
swypkey-tul mit-ess-ta.
 easily-DPM believe-PST-DC
 'Male-students easily believe that female students are honest.'
- b. *han nam-haksayng-un [ye-haksayng-tul-i cengcikhata-ko]
 one male-student-TOP female-student-PM-NOM be-honest-COMP
swypkey-tul mit-ess-ta.
 easily-DPM believe-PST-DC
 'A male-student easily believes that female students are honest.'

3.2 Empty categories and licensing of DPMs

For the sake of the present purpose, let's first consider whether the licenser of the DPM can be an empty category or not. We need to note here that invisible categories (i.e., empty positions) such as PRO or a trace can be a licenser of the DPM as in (14a) and (15a), respectively.¹⁶ The DPM is licensed even in the sentence where the null argument (i.e., pro) appears without any relevant antecedent when the second or third plural persons are presupposed as its subject as in (16) (cf. Chung 2003).¹⁷

¹⁴ Even though we make the embedded subject in (12) focused by putting some pitch accent, it cannot license the DPM. That is, the sentence is not ambiguous.

¹⁵ It will be shown in (21) how the DPM attached to the matrix adverb *swypkey* in (13b), which sounds bad, is c-commanded and licensed by the distributive RTOed argument.

¹⁶ In fact, the control PRO used here is pro in Korean, which is a matter of my ongoing research (Lee 2013b).

- (14) a. [PRO_i **yelsimhi-tul** kongpwuhan-hwuey] **haksayng-tul_i-un**
 hard-DPM study-after student-PM-TOP
cip-ulo-tul ka-ss-ta.
 home-to-DPM go-PST-DC
 ‘After studying hard, the students went home.’
- b. *[PRO_i **yelsimhi-tul** kongpwuhan-hwuey] **han haksayng_i-un**
 hard-DPM study-after one student-TOP
cip-ulo ka-ss-ta.
 home-to go-PST-DC
 ‘After studying hard, a student went home.’
- (15) a. [e_i **tosekwan-eyse-tul yelsimhi-tul** kongpwuhanun] **haksayng-tul_i-un**
 library-in-DPM hard-DPM study student-PM-TOP
 cwungkwuk haksayng-tul_i-i-ta.
 Chinese student-PM-be-DC
 ‘The students who are studying hard in the library are from China.’
- b. *[e_i **tosekwan-eyse-tul yelsimhi-tul** kongpwuhanun]
 library-in-DPM hard-DPM study
(han) haksayng_i-un cwungkwuk haksayng_i-i-ta.
 student-TOP Chinese student-be-DC
 ‘A student who is studying hard in the library is from China.’
- (16) a. (pro) kongpwu-tul yelsimhi-tul hay-ss-ta-tul.
 study-DPM hard-DPM do-PST-DC-DPM
 ‘You(pro) studied hard.’
- b. (in the context referring to the third person plural)
 (pro) mwusahi-tul kwykwuk-tul ha-yess-ta-tul.
 safely-DPM return-home-DPM do-PST-DC-DPM
 ‘People returned home safely.’
- c. (pro) nol-ko-tul iss-ney! (pejorative expression)
 play-and-DPM be-DC
 ‘They are stupid!’

¹⁷ This is the same pattern that the honorific morpheme *si* is licensed by an honorific target. As for the examples in (16b, c), where the third person plural subject appears as a null argument, the sentences make sense, even though the second person plural subject is more likely to be presupposed as a null argument as in (16a).

As the contrast in (14) and (15) shows, the empty categories such as PRO or a trace must be plural. Note that the null arguments in (16) must also all bear distributive plurality in order that they might license the DPM.

In the bi-clausal structure, also, the null argument in the matrix clause licenses the DPM attached to the embedded complementizer or matrix adverb as in (17).

- (17) a. (pro) [hukin-tul-i meli-ka napputa-ko]-tul
 Negro-PM-NOM head-NOM stupid-COMP-DPM
 swypkey-tul mit-ess-ta.
 easily-DPM believe-PST-DC
 ‘People(pro) believe that Negroes are stupid.’
- b. (pro) [hukin-i meli-ka napputa-ko]-tul
 Negro-NOM head-NOM stupid-COMP-DPM
 swypkey-tul mit-ess-ta.
 easily-DPM believe-PST-DC
 ‘People(pro) believe that Negro is stupid.’

3.3 Licensing of DPMs in RTO constructions

For the present purpose, let’s begin by examining the contrast in the examples in (18a) and (18b).

- (18) a. ?*han nam-haksayng-un [_{CP} ku ye-haksayng-tul-i
 one male-student-TOP that female-student-PM-NOM
 cengcikhata-ko]-**tul** mitunta. (10)
 be-honest-COMP-DPM believe
 ‘A male-student believes that the female students are honest.’
- b. han nam-haksayng-un ku ye-haksayng-tul-ul
 one male-student-TOP that female-student-PM-ACC
 cengcikhata-ko-**tul** mitunta.
 be-honest-COMP-DPM believe
 ‘A male-student believes that female students are honest.’

As already shown above, the example in (18a) is out. However, the example in

(18b) is grammatical. At this stage, we come to wonder why unlike in (18a), the example in (18b) is grammatical.

Before proceeding toward how to license the DPM attached to the complementizer *-ko* in (18b), let's consider where the accusative case-marked constituent *ku ye-haksayng-tul-ul* 'that female-student-PM-ACC' is located in the bi-clausal structure, which, in fact, is the so-called RTO construction. It has been well known in the literature (Yoon 1996, Bruening 2001, Kim 2005, *inter alia*) that the RTOed nominal derives the theta role from a coindexed position with PRO in the embedded thematic position, as shown in (19).

- (19) han nam-haksayng_i-un ku ye-haksayng-tul_j-ul
 one male-student-TOP that female-student-PM-ACC
 [_{CP} PRO_{*i}_j cengcikhata-ko]-**tul** mitunta.
 be-honest-COMP-DPM believe
 'A male-student believes that female students are honest.'

The example in (19) is grammatical, as predicted. The RTOed nominal is in the matrix clause, which induces the RTOed nominal to c-command the DPM attached to the complementizer. I observe that like the shifted plural object in (6), the RTOed argument also carries specificity as discourse effect and presupposed interpretation of distributivity, which induces the RTOed object to move to the Spec of v*P, which is its landing site (Lee 2008).¹⁸ As mentioned above, the shifted object (i.e., RTOed nominal) can lose its focal prominence and gains a presupposed interpretation of distributivity. The fact can verify this effect that the presupposed marker *-nun* can be attached to the distributive RTOed nominal in the shifted position instead of the accusative case marker *-lul* and that the VP-adverb *cengmallo* 'really' can appear between the shifted RTOed nominal and the lower CP.¹⁹ Hence, unlike in (18a), the DPM in (18b) is c-commanded and licensed by the RTOed argument. This is also what the following contrast shows.

¹⁸ From which position the RTOed nominal originates is not a main concern in this paper. What matters here is its landing site (i.e., Spec of v*P). See Yoon (1996) and Kim (2005) for where the RTOed nominal is base-generated.

¹⁹ Note that when a constituent consisting of idiom chunks undergoes object shift to have specificity or presupposed interpretation, their idiomatic meaning disappears. This is one of tests to decide whether a constituent undergoes object shift. See Lee (2012: 126) for empirical data.

- (20) a. *apeci-ka [CP ai-tul-i ttena-la-ko]-tul
 father-NOM child-PM-NOM leave-IMP-COMP-DPM
 seltukha-yess-ta.
 persuade-PST-DC
 ‘Father persuaded the children to leave.’
- b. apeci-ka ai-tul_j-ul [CP PRO*_{i/j} (ppalli-tul)
 father-NOM child-PM-ACC (quickly-DPM)
 ttena-la-ko]-tul seltukha-yess-ta.
 leave-IMP-COMP-DPM persuade-PST-DC
 ‘Father persuaded the children to leave quickly.’

At a glance, the DPM attached to the embedded adverb *ppalli* in (20b) is not locally c-commanded since the possible licensor *ai-tul-ul* ‘child-PM-ACC’ is in the matrix clause. However, it is licensed by the local licensor PRO controlled by the matrix object, which will be discussed in more detail soon.

Next, let’s consider how the RTOed argument licenses the DPMs attached to the matrix adverb. As shown above, the DPM attached to the complementizer *-ko* in (21) is c-commanded and licensed by the RTOed argument. I observe that like the shifted object shown in (6) above, it undergoes the Spec of v*P to get a discourse effect such as presupposed interpretation of distributive plurality. Hence, the RTOed nominal *ku ye-haksayng-tul-ul* ‘that female-student-PM-ACC’ in (21) comes to c-command the DPMs attached to the lower CP and matrix adverb. So, the sentence makes sense.

- (21) han nam-haksayng-un **ku ye-haksayng-tul-ul**
 one male-student-TOP that female-student-PM-ACC
 cengcikhata-ko-**tul** swipkey-**tul** mit-ess-ta.²⁰

²⁰ Some speakers may judge the example in (21) to be more awkward than the example in (18b). If so, then such a judgment may originate from the fact that the DPM attached to the matrix adverb is difficult to be licensed. However, I take the sentence to be as grammatical as the example in (i). Note that the DPM attached to the matrix adverb in (21) and (i) is locally c-commanded and licensed by the RTOed argument in the Spec of v*P under my system.

(i) han kica-nun yuthayin-tul-ul chencayla-ko-tul iceney-tul potoha-yess-ta.
 one reporter-TOP Jew-PM-ACC be-genius-COMP-PM before-PM report-PST-DC
 ‘A reporter reported before that the Jews are a genius.’

reporter-PM-TOP -NOM smart-COMP-DPM
 potoha-yess-ta.
 report-PST-DC
 ‘The reporters reported that Chelswu is smart.’

The examples in (23) can be passivized as in the following.

- (24) a. [yuthayin-tul-i chongmyenghata-ko]-**tul** (kica-tul-eyuyhay)
 Jew-PM-NOM smart-COMP-DPM (reporter-PM-by)
 pototoy-ess-ta.
 be-reported-PST-DC
 ‘That the Jews are smart was reported (by the reporters).’
- b. [Chelswu-ka chongmyenghata-ko]-**tul** (kica-tul-eyuyhay)
 -NOM smart-COMP-DPM (reporter-PM-by)
 pototoy-ess-ta.
 be-reported-PST-DC
 ‘That Chelswu is smart was reported (by the reporters).’

Likewise, the examples in (22), where the DPM attached to the complementizer is licensed by a null plural subject, can undergo passivization, as shown in the following examples, which show more clearly that the DPM attached to the complementizer cannot be licensed by the embedded subject.²¹

- (25) a. [yuthayin-tul-i chongmyenghata-ko]-**tul** miteci-n-ta.
 Jew-PM-NOM smart-COMP-DPM be-believed-PRS-DC
 ‘It is believed (by people) that the Jews are smart.’
- b. [Chelswu-ka chongmyenghata-ko]-**tul** miteci-n-ta.
 -NOM smart-COMP-DPM be-believed-PRS-DC

²¹ If the DPM in (25a) is really c-commanded and licensed by the preceding embedded subject *yuthayin-tul-i* ‘Jew-PM-NOM’ as in J. Lee (2012), the following must be acceptable, contrary to the fact, as will be also discussed in (29) soon.

(i) *[yuthayin-tul-i chongmyenghata-ko]-tul han kica-eyhay han pen mite-ci-ess-ta.
 Jew-PM-NOM smart-COMP-DPM one reporter-by once be-believed-PST-DC
 ‘It was once believed by a reporter that the Jews are smart.’

‘It is believed (by people) that Chelswu is smart.’

Before further proceeding toward licensing of the DPM attached to the passivized complementizer *-ko* in more detail, for the present purpose, let’s consider whether the DPM in the bi-clausal structure is always locally licensed or not. In the following examples, the plural word in bold type locally c-commands and licenses the DPM attached to *-ko* in bold type and the underlined plural word or null argument locally c-commands and licenses the underlined DPM.

- (26) a. **salam-tul-un** [ai-tul-i mikwuk-eyse-tul cal-tul
 people-PM-TOP child-PM-NOM America-in-DPM well-DPM
 calanta-ko]-**tul** malha-n-ta.
 grow-COMP-DPM say-PRS-DC
 ‘People say that children grow well in America.’
- b. **salam-tul-un** **ai-tul_i-ul** [PRO_i mikwuk-eyse-tul cal-tul
 people-PM-TOP child-PM-ACC America-in-DPM well-DPM
 calanta-ko]-**tul** sayngkakha-n-ta.
 grow-COMP-DPM think-PRS-DC
 ‘People say that children grow well in America.’
- c. **sensayngnim-tul-un** **ai-tul_i-eykey** [PRO_i yelsimhi-tul
 teacher-PM-TOP child-PM-DAT hard-DPM
 kongpwuha-la-ko]-**tul** malssumha-si-n-ta.²²
 study-IMP-COMP-DPM say-HON-PRS-DC
 ‘Teachers tell children to study hard.’

At this stage, for the sake of the grammaticalization of the DPM licensing, let’s consider the helpful examples. As Chung points out, the DPM licensing is sensitive to the grammatical function of the triggering element. That is, the adjunct bearing distributivity cannot be a licenser of the DPM even though it c-commands the DPM, which is what the following examples show.

- (27) a. John-i Tom-kwa Mary-lopwuthe chotay-lul

²² The lower clause in (26c) is an imperative sentence, which is called a jussive complement (Pak 2006).

- NOM -and -from invitation-ACC
 ecey(*-tul) pat-ess-ta.
 yesterday-DPM get-PST-DC
 ‘John got an invitation from Tom and Mary.’
- b. nay-ka yele pen mikwuk-ey(*-tul) kapo-ess-ta.
 I-NOM several time America-to-DPM go-PST-DC
 ‘I have been to America several times.’

Note that despite the distributive plurality of the event in (27), the DPM is not licensed, unlike Yim’s (2002) proposal that the DPM is constrained by the event semantic notion of collective-internal distributivity.

This set of facts then leads us to suggest the following condition.

- (28) The DPM must be locally c-commanded by a distributive argument at LF.²³ (The argument means empty categories such as PRO, a trace or null argument as well as overt syntactic constituents such as a subject, direct object, or indirect object.)

Before the embedded complement in (24) and (25) is passivized, the DPM attached to the complementizer *-ko* is c-commanded and licensed by the plural (null) subject as in (22) and (23), respectively. That is, the DPM in (24) and (25) is locally c-commanded and licensed by a matrix plural subject at LF. At this stage, let’s further consider the passivization of the *tul*-marked complement clause. If the DPM attached to the complementizer in the passivized example in (26a) can be c-commanded and licensed by its preceding embedded subject *yuthayin-tul-i* ‘Jew-PM-NOM’, the following example must be acceptable, contrary to the fact.

- (29) *[yuthayin-tul-i chongmyenghata-ko]-tul han kica-eyuyhay
 Jew-PM-NOM smart-COMP-DPM one reporter-by
 (han-pen) pototoy-ess-ta.
 (one-time) be-reported-PST-DC

²³ Grammaticalization for licensing the DPM in (28) is the revised version of my former (Lee’s (2012a: 266)) proposal that in Korean, the distributor is licensed only when the distributivity of its licensor c-commands it at LF.

‘It was (once) reported by a reporter that the Jews are smart.’

Before the embedded complement’s being passivized, the DPM attached to the complementizer *-ko* cannot be licensed by the matrix singular subject, as the contrast in (30) shows. This is the reason why the example in (29) is out.

- (30) a. *han kica-ka [yuthayin-tul-i chongmyenghata-ko]-**tul**
 one reporter-NOM Jew-PM-NOM smart-COMP-DPM
 han-pen potoha-yess-ta.
 one-time report-PST-DC
 ‘A reporter reported once that the Jews are smart.’
- b. kica-tul-un [yuthayin-tul-i chongmyenghata-ko]-**tul**
 reporter-PM-TOP Jew-PM-NOM smart-COMP-DPM
 han-pen potoha-yess-ta.
 one-time report-PST-DC
 ‘A reporter reported once that the Jews are smart.’

3.5 Seeming issues on local c-command

For the sake of present purpose here, let’s return to the example in (20b), where, at a glance, the DPM is not locally licensed by its licensor. In fact, the DPM attached to the adverb *ppalli* in (20b) is locally c-commanded by the licensor PRO in the embedded subject position, which is controlled by the matrix element. This is also what the following examples show.

- (31) a. Kim sensayngnim-i haksayng-tul_i-eykey [PRO_i yelsimhi-tul
 teacher-NOM student-PM-DAT hard-DPM
 kongpwuha-la-ko] tangpwuha-si-ess-ta.
 study-IMP-COMP request-HON-PST-DC
 ‘Teacher Kim requested the students to study hard.’
- b. Kim sensayngnim-i haksayng-tul_i-eykey
 teacher-NOM student-PM-DAT
 [PRO_i mikwuk-ey-tul/cip-ey-tul ka-la-ko]
 America-to-DPM/home-to-DPM go-IMP-COMP

malssumha-si-ess-ta.
 say-HON-PST-DC
 ‘Teacher Kim told the students to study hard.’

Note that while PRO in (31), where the embedded clauses are imperatives, is controlled by the matrix dative argument, PRO in (32) by the matrix subject.

- (32) a. Kim sensayngnim_i-i haksayng-tul_i-eykey [PRO_{*i/j} mikwuk-ey(*-tul)
 teacher-NOM student-PM-DAT America-to-DPM
 ka-keyss-ta-ko] yaksokha-si-ess-ta.
 go-will-DC-COMP promise-HON-PST-DC
 ‘Teacher Kim promised the students to go to America.’ (Yim 2002)
- b. Kim sensayngnim_i-i haksayng-tul_i-eykey [PRO_{*i/j} mikwuk-ey(*-tul)
 teacher-NOM student-PM-DAT America-to-DPM
 pangmwunha-keyss-ta-ko] malssumha-si-ess-ta..
 visit-will-DC-COMP say-HON-PST-DC
 ‘Teacher Kim told the students to visit America.’

The DPM in (32) cannot be licensed by PRO, even though it is locally c-commanded by the PRO. Note that unlike in (31), the PRO in (32) is non-distributive. It is clear that the examples in (20b) and (31) are acceptable because the plural arguments control PRO in their embedded clause, but the DPMs in (32) cannot be licensed because the non-distributive subjects control PRO in the embedded clause.

4. Conclusion

I have observed that the licenser of DPMs is not always necessarily a subject but can be a c-commanding nominal. As for the shifted object licensing the DPM attached to the VP adverb, I have shown that it carries specificity and presupposed interpretation of distributivity, which induces it to move to the Spec of v*P. Hence, the shifted object c-commands and licenses the DPM. It has been shown that a distributive argument to which the typical distributive markers such as *-mata* ‘every’,

-ssik ‘each’, *hana hana* ‘one-by-one’ as well as the plural marker *-tul* in the above examples are attached can be a licenser of the DPM. In addition, I have critically reviewed J. Lee’s (2012) claim that in the bi-clausal structure, the DPM attached to the embedded complementizer *-ko* can be spread to the plural subject within its clause and it is locally c-commanded and licensed by the embedded plural subject. I have put forward the observation that the DPM attached to the embedded complementizer *-ko* as well as the matrix adverb, in fact, is only licensed by the matrix distributive argument. I have further argued that the RTOed nominals are located in the matrix clause, which induces it to c-command and license the DPM attached to the complementizer and matrix adverb. Like the shifted plural object, the RTOed argument also carries specificity and presupposed interpretation of distributivity, which induces the RTOed object to move to the Spec of v*P in the matrix clause. To verify that the DPM attached to the complementizer is only licensed by the matrix distributive argument, I have tried to passivize the embedded complement to which the DPM is attached. This set of facts has led us to suggest the following condition.

- (28) The DPM must be locally c-commanded by a distributive argument at LF. (The argument means empty categories such as PRO, a trace or null argument as well as overt syntactic constituents such as a subject, direct object, or indirect object.)

It has also been observed that the DPM in the passive forms in (24) and (25) can be locally c-commanded and licensed by its compatible licenser, before their being passivized. As a result, I have argued that the DPM must be locally c-commanded and licensed by PRO, a trace, null argument (i.e. pro) or syntactic argument, which bears distributivity.

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