

# Two Different Types of Verb Phrase Fronting Constructions in Korean

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## ABSTRACT

In this paper, I attempt to investigate two forms of verb phrase fronting constructions in Korean: 1) verb doubling VP fronting and 2) *do*-support VP fronting constructions. First, I lay out common properties of the two constructions and show that verb phrase fronting constructions in Korean involve verb phrasal movement rather than being base-generated in the left-periphery. Furthermore, I observe that the two VP fronting constructions exhibit differences regarding the verb types and negation. I argue that these differences are caused by the variation in the size of the targeted materials for fronting and its interaction with the syntactic constraint, a type of the Condition of the Extraction Domain (CED).

**Keywords:** VP fronting, *do*-support, verb doubling, CED, phase

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## 1. Introduction

In this paper, I will investigate the structure and properties of VP-fronting constructions in Korean. VP fronting is a widespread phenomenon across languages (Hein, 2017; Landau, 2006; Vincente, 2007, 2009 among many others). As shown below, it is possible to displace the verb or entire verb phrase including the internal arguments to the beginning of a sentence. As previously observed, there are two different forms of the verb fronting constructions; 1) verb-doubling and 2) *do*-insertion. To illustrate, when the verb or verb phrase is displaced, verb doubling or *do*-insertion appears instead of having a gap in the base position. That is, as shown in (1), in some languages, a semantically vacuous dummy verb *do* can occur in base position. In other languages, the fully-inflected counterpart of the fronted verb can occur in the base position, giving rise to the co-occurrence of the verb morpheme both in the fronted and base position, as shown in (2).

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(1) Dutch

- a. Verraden doet hij haar niet.  
betry does he her not  
'He doesn't betray her.'
- b. Haar verranden doet hij niet.  
her betray does he not  
'He doesn't betray her.'

(Hein, 2017)

(2) Spanish

- a. Venir me parece que ya no vienes.  
come.Inf me.Dat seems that already not come.2sg  
'As for coming, it seems to me that you aren't coming in the end.'
- b. Leer el libro Juan lo ha leído  
read.Inf the book Juan CL has read  
'As for reading the book, Juan has indeed read it.'

(Hein, 2017)

Likewise, when verb phrase can be fronted in Korean, both dummy verb insertion and verb doubling options are available, as respectively shown in (3) and (4). In (3), the fronted VP triggers insertion of a dummy verb *ha* 'do' behind, here dubbed *do*-support VP fronting.<sup>1)</sup> Another form of VP fronting construction in (4) involves double verbal inflections occurring both in the base and fronted position, here dubbed verb doubling VP fronting.<sup>2)</sup>

1) A reviewer suggests the possibility that the fronted material in (3) is a nominal rather than VP. However, as shown in (i), the fronted materials can be modified by VP adverbs such as *ppalli* 'fast' not by adjective *ppalum* 'fast'. In addition, VP can be coordinated whereas NP cannot be coordinated, as shown in (ii). This suggests that the fronted material in (3) is not a nominal but VP.

(i) *ppalli*/\**ppalum* ket-ki-nun Kim-i t hay-ss-ta.  
fast walk-Nml-Top Kim-Nom do-Pst-Dec  
'As for walking fast, Kim did walk.'

Adapted from Ahn (1991)

(ii) a. *mek-ko* ket-ki-nun Mary-ka t hay-ss-ta.  
eat-and walk-Nml-Top Mary-Nom do-Pst-Dec  
'As for eating and walking, Mary did eat and walk.'

b. *\*sayngkak-kwa* ket-ki-nun Mary-ka t hay-ss-ta.  
thought-and walk-Nml-Top Mary-Nom do-Pst-Dec  
'(lit) As for thought and walking, May did.'

2) I tentatively adopt Hein (2012)'s argument that the orders between the operations Chain Reduction (CR) and head movement (HM) at PF determines whether *do*-support or doubling occurs. That is, HM occurring prior to CR leads to verb doubling whereas HM occurring after CR leads to *do*-support. According to him, CR is an operation that determines and deletes the lower copy under phonological identity with the higher copies to resolve PF conflicts created by movements. Let us first briefly explain how doubling occurs. Verb head movement takes place from V to v to T. Then, when the

(3) [ket-ki-(nu)n] Kim-i t hay-ss-ta.  
 walk-Nml-Top Kim-Nom do-Pst-Dec  
 ‘As for walking, Kim did walk.’ [do-support VP fronting]  
 Adapted from Ahn (1991)<sup>3)</sup>

(4) [ket-ki-(nu)n] Kim-i t kel-ess-ta.  
 walk-Nml-Top Kim-Nom walk-Pst-Dec  
 ‘As for walking, Kim did walk.’ [verb doubling VP fronting]  
 Adapted from Kim (2019)

As reported by Hein (2017), the fronted VP in VP fronting constructions across languages can be either nominalized or non-finite. Likewise, the fronted VP in Korean VP fronting constructions involve the nominalizer *-ki* followed by the topic-marker *-nun*. Due to the presence of the topic marker, one might view VP fronting constructions in Korean as VP (predicate) topicalization constructions.<sup>4)</sup>

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C head merges, the whole VP including a copy of V raises to Spec CP. CR deletes all copies except the heads of a movement chain “post-syntactically”. The V copy inside the fronted VP and the one in the complex V+v+T head are the heads of two independent movement chains. Thus, both copies are spelled-out without being deleted by CR, thereby giving rise to verb doubling. On the other hand, if the lower VP copy is deleted before head movement takes place, there is no verb to be moved anymore. Therefore, a dummy verb *ha* is inserted as a Last Resort.

I assume that negation is the functional projection located in the verbal spine and hence it can be included in the complex verb head movement and hence it can be doubled.

3) The original example from Ahn (1991) involves the verb *talli-* ‘run’. However, the structural ambiguity arises with the verb *talli-* *run* because it can be in the form of regular verb as in (i) but also in the form of the nominal verb (dubbed by Park, 2017) followed by the light verb, as in (ib) and (ic). On the other hand, the verb *ket-* ‘walk’ does not cause such ambiguity because it cannot be in the form of the nominal verb, as shown in (iib) and (iic). Thus, *hay* ‘do’ in (3) is not a light verb but comes from *do*-insertion.

Here, I assume that when verb becomes nominalized, the tense affix is stranded and then *do*-insertion occurs (cf. Hein, 2017). As a result, *do* hosts the tense affix and expresses finiteness.

(i) a. Mary-ka tally-ess-ta.  
 Mary-Nom run-Pst-Dec  
 ‘Mary ran.’  
 b. Mary-ka talli-ki hay-ss-ta.  
 Mary-Nom run-Nml Lv-Pst-Dec  
 c. Mary-ka talli-ki-lul hay-ss-ta.  
 Mary-Nom run-Nml-Acc Lv-Pst-Dec

(ii) a. Mary-ka kell-ess-ta.  
 Mary-Nom walk-Pst-Dec  
 b. \*Mary-ka ket-ki hay-ss-ta.  
 Mary-Nom walk-Nml Lv-Pst-Dec  
 c. ??/\*Mary-ka ket-ki-lul hay-ss-ta.  
 Mary-Nom walk-Nml-Acc Lv-Pst-Dec



- (7) a. *sensangnim-kkeyse kelu-si-ki-nun hay-ss-ta.*  
 teacher-Hon walk-Hon-Nml-Top do-Pst-Dec  
 ‘As for walking, the teacher did walk.’ [VP topicalization]
- b. *\*kelu-si-ki-nun sensangnim-kkeyse t hay-ss-ta.*  
 walk-Hon-Nom-Top teacher-Hon do-Pst-Dec  
 ‘As for walking, the teacher did walk.’ [VP fronting]

Now, let us return to the structural description of VP fronting constructions in Korean. As briefly mentioned above, the fronted VP cannot bear any tense morphology (building on the observation by Lee (1995) about verb doubling constructions) in both types of VP fronting constructions. The illustrative examples are provided below in (8) and (9). As alluded above, this is consistent with VP fronting constructions in other languages in which the fronted VP is usually non-finite (i.e. infinitive or nominalized) (Hein, 2017).

- (8) a. *[ket-ki-(nu)n Mary-ka t hay-ss-ta.*  
 walk-Nml-Top Mary-Nom do-Pst-Dec  
 ‘As for walking, Mary did walk.’ [*do*-support VP fronting]
- b. *\*kel-ess-ki-(nu)n Mary-ka t hay-ss-ta.*  
 walk-Pst-Nml-Top Mary-Nom do-Pst-Dec  
 ‘As for walking, Mary did walk.’
- (9) a. *[ket-ki-(nu)n Kim-i t kel-ess-ta.*  
 walk-Nml-Top Kim-Nom walk-Pst-Dec  
 ‘As for walking, Kim did walk.’ [verb doubling VP fronting]
- b. *??/\*[kel-ess-ki-(nu)n Kim-i t kel-ess-ta.*  
 walk-Pst-Nml-Top Kim-Nom walk-Pst-Dec  
 ‘As for walking, Kim did walk.’ (Lee, 1995)

The unavailability of the tense morpheme in the fronted phrase in (8) and (9) suggests that Korean VP constructions cannot be analyzed as an instance of TP fronting. In other words, the syntactic category of the displaced material is VP rather than TP. In what follows, I show that both the *do*-support and verb doubling VP fronting constructions in Korean are indeed derived via (verb) phrasal movement (cf. Yim (2004) for *do*-support VP fronting construction, Kim (2019) for verb-doubling VP fronting constructions). I also provide several pieces of evidence to show that base-generation cannot underlie the derivation of VP fronting

constructions in Korean. In section 3, I show that despite their similarities, there are differences between *do*-support VP fronting and verb doubling VP fronting constructions. In section 4 and 5, I argue that the differences of the two VP fronting constructions come from the size difference of the displaced material between the two constructions. I also show that the derivation of each construction is regulated by a type of CED and provide extensions of the proposal.

## 2. Movement Properties of VP Fronting

In this section, I introduce all the characteristics of phrasal movement that VP fronting constructions exhibit, some of which are previously observed by Lee (1995) and Kim (2019) for verb doubling VP constructions. In particular, I present the data to show that VP fronting can take place in long-distance fashion. Second, I show that VP fronting is sensitive to the island condition. Then, I demonstrate that the fronted VP is moved to its surface position, and not generated there.

See the examples in (10) and (11). As illustrated below, VP fronting can be implemented in long-distance manner (first observed by Lee 1995 for verb doubling VP fronting constructions with bridge verbs). That is, the embedded VP can be fronted to the left-periphery of the matrix clause.

- (10) a. [ket-ki-nun] John-i Mary-ka t hay-ss-ta-ko  
 walk-Nml-Top John-Nom Mary-Nom do-Pst-Dec-C  
 mal-hay-ss-ta.  
 say-do-Pst-Dec [do-support VP fronting]  
 ‘As for walking, John said that Mary walked.’

- b. [ket-ki-nun] John-i Mary-ka t kel-ess-ta-ko  
 walk-Nml-Top John-Nom Mary-Nom walk-Pst-Dec-C  
 malhay-ss-ta.  
 say-Pst-Dec [verb doubling VP fronting]  
 ‘As for walking, John said that Mary walked.’

- (11) [ppang-ul mek-ki-nun] John-i Mary-ka t mek-ess-ta-ko  
 bread-Acc eat-Nml-Top John-Nom Mary-Nom eat-Pst-Dec-C  
 malhay-sss-ta.  
 say-Pst-Dec [verb doubling VP fronting]  
 ‘As for eating bread, John said that Mary ate bread.’

Next, VP fronting is sensitive to islands. As shown in (12) and (13), when VP is fronted across an island boundary (complex NP island in (12), adjunct island in (13), respectively), both *do*-support and verb doubling VP fronting constructions become unacceptable (first noticed by Lee (1995) for verb doubling VP constructions). This shows us that both types of VP fronting constructions in Korean involve phrasal movement to the left-periphery of the sentence and hence they are subject to the syntactic constraints such as the island condition.

(12) a. \*[ket-ki-nun] John-i [island Mary-ka t hay-ss-ta-nun  
 walk-Nml-Top John-Nom Mary-Nom do-Pst-Dec-Top  
 somwun-ul] al-ko-i-ss-ta.  
 rumor-Acc know-C-Cop-Pst-Dec [complex NP island]  
 ‘(lit) As for walking, John knows the rumor that Mary walked.’  
 [do-support VP fronting]

b. \*[ket-ki-nun] John-i [island Mary-ka t kel-ess-ta-nun  
 walk-Nml-Top John-Nom Mary-Nom run-Pst-Dec-C  
 somwun-ul] al-ko-i-ss-ta.  
 rumor-Acc know-C-Cop-Pst-Dec  
 ‘(lit) As for waling, John knows the rumor that Mary walked.’  
 [verb doubling VP fronting]

(13) a. \*[ket-ki-nun] John-i [island Mary-ka t  
 walk-Nml-Top John-Nom Mary-Nom  
 hay-ss-ki-ttaymwuney] hwana-ss-ta.  
 do-Pst-Nml-because angry-Pst-Dec [adjunct island]  
 ‘As for walking, John was angry because Mary walked.’  
 [do-support VP fronting]

b. \*[ket-ki-nun] John-i [island Mary-ka t kel-ess-ki-ttaymwuney]  
 walk-Nml-Top John-Nom Mary-Nom walk-Pst-Nml-because  
 hwana-ss-ta.  
 angry-Pst-Dec  
 ‘As for walking, John was angry because Mary walked.’  
 [verb doubling VP fronting]

## 2.1. Against base-generation approach

In this subsection, in line with what we have seen in the previous subsection,

I argue that the fronted VPs cannot be taken to be base-generated in the left-peripheral position. Observe the following example with anaphors. If VP were base-generated in its surface position in (14), binding condition A violation should arise. This is because the reciprocal is located above its binder *John-kwa Mary* ‘John and Mary’ and hence it cannot be bound. However, this is not the case. Rather, the acceptability of (14) straightforwardly follows from the movement analysis of VP fronting in that VP undergoes movement from its base position where the binding condition A is satisfied to the beginning of a sentence.

- (14) [selo<sub>1</sub>-lul            miweha-ki-nun] [John-kwa Mary]<sub>1</sub>-ka t miwehay-ss-ta.  
 each other-Acc hate-Nml-Top John and Mary-Nom hate-Pst-Dec  
 ‘As for hating each other, John and Mary did hate each other.’  
[verb doubling VP fronting]

Indeed, the canonical word order counterpart of (14) exhibits the same acceptability, as shown in (15). This constitutes further evidence in favor of the VP movement analysis of VP fronting.

- (15) [John-kwa Mary]<sub>1</sub>-ka selo-lul<sub>1</sub>            miweha-ki-nun miwehay-ss-ta.  
 John and Mary-Nom each other-Acc hate-Nml-Top hate-Pst-Dec  
 ‘[John and Mary]<sub>1</sub> did hate each other<sub>1</sub>.’ [canonical]

In addition, we can diagnose whether the VP phrase is base-generated in its surface position by employing *wh*-licensing condition. For instance, a *wh*-phrase in Korean has to be c-commanded by the interrogative Q-marker to be licensed, as shown in (16).

- (16) a. \*nwu-ka John-i wa-ss-nunci kwungkumhay-hayss-ta.  
 who-Nom John-Nom come-Pst-Q wonder-Pst-Dec.  
 ‘Who wondered John came.’  
 b. John-i Mary-ka mwues-ul mek-ess-ta-ko malhay-ss-ni?  
 John-Nom Mary-Nom what-Acc eat-Pst-Dec-C say-Pst-Q  
 ‘What did John say that Mary ate?’

In (17), the interrogative Q-marker is located in the embedded clause. Thus, if the fronted VP were base-generated in its surface position, the *wh*-phrase inside the

fronted VP were not able to be c-commanded by the Q-marker. Hence, we can incorrectly rule out (17) due to the *wh*-licensing condition violation.

- (17) [casintul<sub>1</sub>-uy etten chayk-ul phal-ki-nun] Mary-ka  
 each other-of which book-Acc sell-Nml-Top Mary-Nom  
 haksayngtul<sub>1</sub>-i t pal-ass-nunci kwungkuwmhay-hayss-ta.  
 students-Nom sell-Pst-Q wonder-Pst-Dec  
 ‘(lit) As for selling which book of themselves, Mary wonder which book  
 of themselves students sell.’

However, the acceptability of (17) suggests otherwise; the fronted VP indeed moves from the embedded clause where the *wh*-phrase can be licensed to its surface position. Also, the embedded subject-bound interpretation of the (plural-)anaphor *casin-tul* ‘selves’ in the fronted VP indicates that the exact base-generation position of the fronted VP is below the embedded TP. Hence, the absence of the *wh*-licensing and binding condition A violation in (17) can be successfully accounted for under the current movement theory of Korean VP fronting constructions.

In addition, the interpretation of (18) is ambiguous, as illustrated below. The interpretation of (18a) is possible only when VP is moved from the position below the subject.

- (18) ket-ki-nun etten haysayng-i t hay-ss-ta.  
 walk-Nml-Top some student-Nom do-Pst-Dec  
 a. ‘There is a particular student who walked.’ (some student > walk)  
 b. ‘It is true that some student walked but we don’t who that student is.’  
 (walk > some student)

Thus far, I have shown that VP fronting constructions in Korean are indeed derived via VP movement. In the following section, I present new data to show that there are differences between *do*-support VP and verb-doubling fronting constructions. Furthermore, I argue that the differences originate from their different underlying structures. To be precise, the targeted position for fronting differs between the two constructions; *do*-support VP fronting targets VP while verb doubling VP fronting targets vP.

### 3. Differences between the Two Different Kinds of VP Fronting

First, *do*-support and verb-doubling VP fronting in Korean exhibit different behaviors with the types of fronted verbs. In particular, as observed by Ahn (1991), VP fronting with *do*-support is impossible when the verbs are unaccusative verbs (Hoji et al (1989) made the same observation for Japanese).<sup>5</sup>

- (19) a. \*tochakha-ki-nun/mikkuleci-ki-nun Kim-i t hay-ss-ta.  
arrive-Nml-Top/slip-Nml-Top Kim-Nom do-Pst-Dec  
'As for arriving/slipping, Kim did arrive/slip.'

Adapted from Ahn (1991)

- b. \*nayli-ki-nun pi-ka t hay-ss-ta.  
fall-Nml-Top rain-Nom do-Pst-Dec  
'(lit) As for falling, rain did fall.'

Adapted from Ahn (1991)

However, if verb-doubling surfaces in place of the dummy verb, it becomes possible to displace VP with unaccusative verbs to the beginning of a sentence, as shown in (20). That is, in contrast to *do*-support VP fronting, verb-doubling VP fronting is possible with unaccusative verbs.

- (20) a. tochakha-ki-nun Kim-i t tochakhay-ss-ta.  
arrive-Nml-Top Kim-Nom arrive-Pst-Dec  
'As for arriving, Kim did arrive.'
- b. nali-ki-nun pi-ka t naylye-ss-ta.  
fall-Nml-Top rain-Nom fall-Pst-Dec  
'(lit) As for falling, rain did fall.'

In addition, verb-doubling VP fronting is only available for transitive verbs. That is, regardless of the fact that internal arguments are moved along with the verb, *do*-support VP fronting is not allowed, as shown in (21) (See Lee (1995) for an earlier version of this observation about the unavailability of internal arguments stranding). On the other hand, verb-doubling VP fronting is possible with transitive verbs.<sup>6</sup> Also, as Kim (2019) observes, internal arguments can be either fronted or

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5) I consulted 7 native speakers of Korean. 5 out of 7 found the example (19) unacceptable.

stranded, as shown in (22). This suggests that the targeted materials for fronting differ between *do*-support VP fronting and verb doubling fronting constructions.

- (21) a. \*sakwa-ul mek-ki-(nu)n Mary-ka t hay-ss-ta.  
 apple-Acc eat-Nml-Top Mary-Nom do-Pst-Dec  
 ‘As for eating apples, Mary did eat apples.’  
 b. \*mek-ki-(nu)n Mary-ka sakwa-ul t hay-ss-ta.  
 eat-Nml-Top Mary-Nom apple-Acc do-Pst-Dec  
 ‘As for eating apples, Mary did eat apples.’

Adapted from Lee (1995)

- (22) a. sakwa-ul mek-ki-(nu)n Mary-ka t mek-ess-ta.  
 apple-Acc eat-Nml-Top Mary-Nom eat-Pst-Dec  
 ‘As for eating apples, Mary did eat apples.’  
 b. mek-ki-(nu)n Mary-ka sakwa-ul t mek-ess-ta.  
 eat-Nml-Top Mary-Nom apple-Acc eat-Pst-Dec  
 ‘As for eating apples, Mary did eat apples.’ (Kim, 2019)

When it comes to negation, *do*-support VP fronting and verb doubling VP fronting also behave differently. For instance, as shown in (23), any form of negation (e.g. short-form negation (23a), long-form negation (23b)) is forbidden in the ‘fronted’ VP in *do*-support VP constructions.<sup>7)</sup> However, the data in (23c) and (23d) show

6) Lee (1995) reports that the complement cannot appear within the fronted VP (the clefted predicate in his terms), as shown in (i). However, the notable point here is that an internal argument occurs both in the fronted and the base position. Hence, it is possible that unacceptability of (i) is not caused by fronting the internal argument. Thus, (i) is not necessarily conflicting to the judgment reported in (22a).

(i) ?\*ppang-ul mek-ki-nun [Yengi-ka ppang-ul mek-ess-ta].  
 bread-Acc eat-Nml-Top Y-Nom bread-Acc eat-pst-Dec  
 ‘(lit) It is EAT THE BREAD that Yenghi ate the bread.’

7) Lee (1995) made the similar observation, as shown in (i). As for (ib), its affirmative counter part in (22b) is already unacceptable. Hence, we cannot argue that unacceptability of (ib) arises due to the presence of negation.

(i) a. \*an-ka-ki-nun Chelswu-ka t hay-ss-ta.  
 Neg-go-Nml-Top Chelswu-Nom do-Pst-Dec  
 ‘(lit) It is NOT GO that Chelswu went.’ (Lee, 1995)  
 b. \*an-mek-ki-nun Chelswu-ka sakwa-lul t hay-ss-ta.  
 Neg-eat-Nml-Top Chelswu-Nom apple-Acc do-Pst-Dec  
 ‘(lit) It is NOT EAT that Chelswu did not eat the apple.’ (Lee, 1995)

us that negation, irrespective of the form, can be stranded.

- (23) a. \*an-ket-ki-(nu)n     Mary-ka     t     hay-ss-ta.  
 Neg-walk-Nml-Top     Mary-Nom             do-Pst-Dec  
 ‘(lit) As for not waling, Mary did.’                             short-form negation
- b. \*ketci-anh-ki-nun     Mary-ka     t     hay-ss-ta.  
 run-Neg-Nml-Top     Mary-Nom             do-Pst-Dec  
 ‘(lit) As for not walking, Mary did.’                             long-form negation
- c. ket-ki-(nu)n     Mary-ka     t     an-hay-ss-ta.  
 walk-Nml-Top     Mary-Nom             Neg-do-Pst-Dec  
 ‘(lit) As for walking, Mary did not walk.’                             short-form negation
- d. ket-ki-(nu)n     Mary-ka     t     haci-anh-ass-ta.  
 run-Nml-Top     Mary-Nom             do-Neg-Pst-Dec  
 ‘(lit) As for walking, Mary did not walk.’                             long-form negation

Let us move on to the verb-doubling VP fronting constructions. On the face of it, verb-doubling VP fronting constructions do not seem to tolerate negation whatsoever. As shown in (24a) and (24b), any form of negation seems not to be fronted just as in *do*-support VP fronting constructions. However, as shown in (24c) and (24d), negation seems not to be stranded either in verb-doubling VP fronting constructions.

- (24) a. \*an-ket-ki-(nu)n     Mary-ka     t     kel-ess-ta.  
 Neg-walk-Nml-Top     Mary-Nom             walk-Pst-Dec  
 ‘(lit) As for not walking, Mary did walk.’                             short-form negation
- b. \*ketci-anh-ki-(nu)n     Mary-ka     t     kel-ess-ta.  
 walk-Neg-Nml-Top     Mary-Nom             walk-Pst-Dec  
 ‘(lit) As for not walking, Mary did walk.’                             long-form negation
- c. \*ket-ki-(nu)n     Mary-ka     t     an-kel-ess-ta.  
 walk-Nml-Top     Mary-Nom             Neg-walk-Pst-Dec  
 ‘(lit) As for walking, Mary did not walk.’                             short-form negation
- d. \*ket-ki-(nu)n     Mary-ka     t     ketci-anh-ass-ta.  
 walk-Nml-Top     Mary-Nom             walk-Neg-Pst-Dec  
 ‘As for walking, Mary did not walk.’                             long-form negation

Note that, as shown in (25) and (26), if negation appears both in the fronted and

base position, the constructions become acceptable. That is, it is not that negation cannot be fronted. Rather, it can be fronted only to the extent that negation doubling surfaces in its base position. This indicates that negation can be included in the fronted materials along with verbs in verb-doubling VP fronting constructions.

(25) an-ket-ki-(nu)n      Mary-ka      t      an-kel-ess-ta.  
 Neg-walk-Nml-Top    Mary-Nom                      Neg-walk-Pst-Dec  
 ‘As for not walking, Mary did not walk.’

(26) ketci-anh-ki-(nu)n    Mary-ka      t      ketci-anh-ass-ta.  
 walk-Neg-Nml-Top    Mary-Nom                      walk-Neg-Pst-Dec  
 ‘As for not walking, Mary did not walk.’

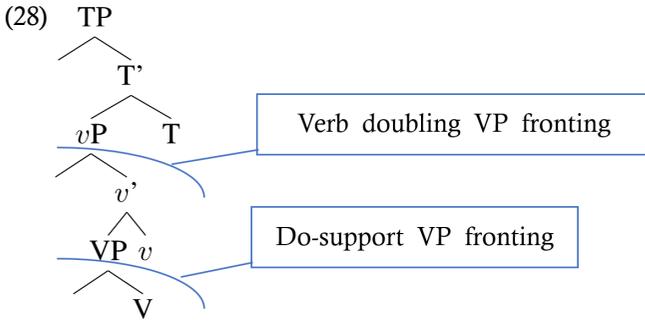
The gist of the discussion thus far is summarized in (27).

	<i>do</i> -support	Verb doubling
Unaccusative verb	×	○
Transitive verb	×	○
Negation fronting	×	○ (iff negation doubled)

(27) Differences between *do*-support and verb doubling VP fronting in Korean.

#### 4. Analysis

Given what has been discussed, I argue that the two different VP fronting constructions in Korean target different verb projections for fronting. In particular, *do*-support VP fronting constructions targets VP whereas verb-doubling VP fronting construction does vP (to be precise, the maximal (extended) projection of the verb), as illustrated in (28).



Based on Chomsky's (2000) phase system, I assume that VP fronting constructions in Korean undergo cyclic spell-out (Yim 2004 for similar proposal). I also assume that CPs and vPs are phases in Korean, adopting Ko (2008). Based upon the assumptions made, I argue that to avoid being spelled out, the VP targeted for fronting must stop by the edge position of each phase head (e.g. spec of vP and spec of CP) until it reaches to the final destination.<sup>8)</sup> I also argue that once the whole VP moves, nothing can be extracted from the moved VP. That is, extraction from a derived specifier is not allowed. (see Huang's (1982) Condition on Extraction Domain (CED), Ormazabal et al.'s (1994) Specifier Condition). Thus, given that the VP has moved to spec of vP, the VP-internal NP cannot undergo further movement from the specifier of VP (which is itself now a derived specifier) to CP.

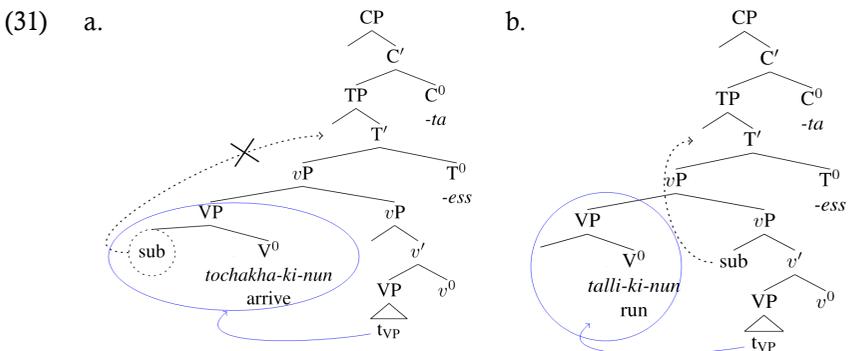
Given the proposal above, let me demonstrate why *do*-support fronting constructions are sensitive to the verb types, in contrast to verb doubling fronting constructions. Observe the unaccusative example in (19) and unergative example in (3), respectively repeated here in (29) and (30). Following Perlmutter (1978) and Lee (2007) for Korean, I argue that the base-generation position of the subject differs between unaccusative and unergative verbs. In particular, the subject of the unaccusative verb in (29) is base-generated in the complement of the verb whereas that of the unergative verb in (30) is in the spec of vP.

8) One might argue that movement of VP from the complement to spec of vP is too local, thereby violating the anti-locality condition (Boskovic, 1994; Abels, 2003 among many others). Previously, Gronhmann (2003) argues that the anti-locality condition is not an absolute ban on too-local movement, but rather "a PF restriction that no dependency may contain two non-distinct copies within a too-local environment." Thus, the anti-locality can be overridden only when the non-distinctiveness of the two copies can be avoided. Adopting Gronhmann, I argue that *do*-support in *do*-support VP fronting constructions under discussion is a Last Resort procedure yielding the different PF matrix. Thus, the VP movement to spec vP, though it is too local, can be implemented. See Gronhmann (2003) for detailed discussions.

- (29) a. \*tochakha-ki-nun Kim-i t hay-ss-ta.  
 arrive-Nml-Top Kim-Nom do-Pst-Dec  
 ‘As for arriving, Kim did arrive.’  
 b. \*nayli-ki-nun pi-ka t hay-ss-ta.  
 fall-Nml-Top rain-Nom do-Pst-Dec  
 ‘(lit) As for falling, rain did fall.’ (= (19))
- (30) [talli-ki-(nu)n] Kim-i t hay-ss-ta.  
 run-Nml-Top Kim-Nom do-Pst-Dec  
 ‘As for running, Kim did run.’ (= (3))

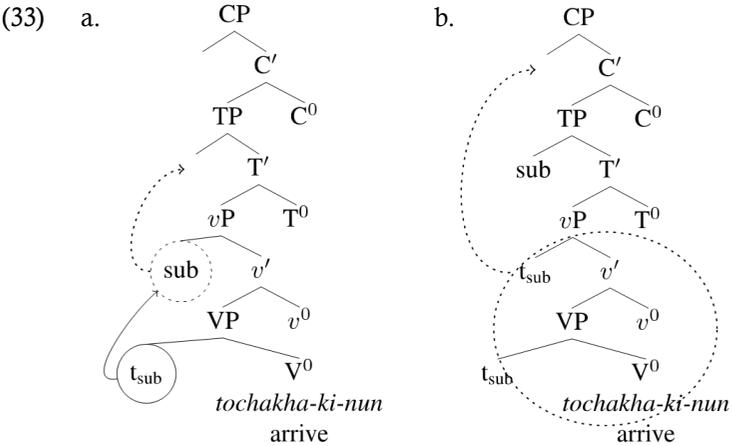
Having established the assumption, let me illustrate a full derivation of each construction in (29) and (30), in turn. Starting with (29), the VP targeted for *do*-support fronting undergoes movement to the edge position, spec of the vP, not to be spelled-out. Then, the subject proceeds to move to spec of TP. However, this step of movement is not allowed, according to the proposed version of CED; the subject is now located in the derived specifier (i.e. spec of VP) out of which it cannot undergo further movement, as shown in (31a). Thus, we can correctly capture that *do*-support VP fronting constructions with unaccusative verbs like (29) cannot be derived without yielding unacceptability.

On the other hand, in *do*-support VP fronting construction with unergative verb in (30), there is no NP extraction from the moved VP (in the edge position of vP), as shown in (31b). That is, given that the base-position of the subject in unergative constructions is the spec of vP, movement of the subject to TP does not violate the CED, thereby rendering (30) acceptable.



In line with the previous discussion, the acceptability of the verb doubling VP fronting constructions with unaccusative verbs can be accounted for. Consider the example in (20), repeated here in (32). Note that the targeted materials for verb doubling VP fronting construction is vP. The subject, base-generated in the complement of the verb, moves to the edge position of vP to avoid being spelled out, as shown in (33a). At this point of the derivation, spec of vP does not constitute as a derived specifier because vP does not move at all. Then, the subject on its own can undergo subsequent movement to TP and this movement occurs prior to vP fronting to CP, as shown in (33). Thus, no CED violation arises, thereby (32) acceptable.

- (32) a. *tochakha-ki-nun Kim-i t tochakhay-ss-ta.*  
 arrive-Nml-Top Kim-Nom arrive-Pst-Dec  
 ‘As for arriving, Kim did arrive.’
- b. *nali-ki-nun pi-ka t naylye-ss-ta.*  
 fall-Nml-Top rain-Nom fall-Pst-Dec  
 ‘(lit) As for falling, rain did fall.’



Therefore, under the current analysis, *do*-support and verb doubling VP fronting constructions exhibit differences with respect to the verb types because 1) each of them targets the different verb projection for fronting and their derivation is regulated by a type of the CED.

#### 4.1. Predictions

I have argued that the differences of the two can be explained by the interaction between the different size of the fronted materials of each construction and the syntactic constraint, CED. The current analysis makes the following predictions. The first prediction that we can make is that the availability of NP scrambling differs between *do*-support and verb doubling VP fronting constructions. The second prediction we can make is that the two VP fronting constructions behave differently with nominal verbs.

On the current approach, nothing can be extracted out of the moved verb phrase. Given that Korean has scrambling, in theory, the VP internal argument (i.e. object) alone can undergo scrambling. Then, we can expect that scrambling of the object alone (followed by the VP remnant movement) would be impossible in *do*-support but possible in verb doubling VP fronting constructions in Korean. This is because, under the current analysis, in *do*-support VP fronting, there already exists movement of the VP from which the object is originated. Thus, scrambling of the object from the VP is blocked by the CED. On the other hand, verb doubling VP fronting constructions lacks such movement and hence the object on its own can undergo scrambling to the left-periphery. As shown in (34), this prediction is indeed borne out.<sup>9)</sup>

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9) As this point, one might consider a derivational possibility where the VP internal argument undergoes scrambling alone to spec of vP prior to the VP movement to another spec of vP (under the assumption that Korean is a multiple specifier language). However, this derivation is empirically problematic. First, such derivation would yield the ill-formed construction in (i). Also, this derivation involves the remnant movement. Similarly, as shown in (ii), the remnant CP scrambling preceded by NP scrambling is not allowed in Korean (Saito, 1985).

- (i) \*[ t<sub>1</sub> mek-ki-nun]<sub>2</sub> Mary-ka ppang-ul<sub>1</sub> t<sub>2</sub> hay-ss-ta.  
 eat-Nml-Top Mary-Nom bread-Acc do-Pst-Dec  
 'As for eating bread, Mary ate bread.' [do-support VP fronting]
- (ii) \*[Mary-ka t<sub>1</sub> mek-ess-ta-ko]<sub>2</sub> (ppang-ul<sub>1</sub>) John-i (ppang-ul<sub>1</sub>) t<sub>2</sub> malhay-ss-ta.  
 Mary-Nom eat-Pst-Dec-C bread-Acc John-Nom bread-Acc say-Pst-Dec  
 'John said that Mary ate bread.'

To rule out the derivation under discussion, one might resort to Chomsky (2001)'s strong Phase Impenetrability Condition (PIC) (cf. Hiraiwa (2003)'s Edge Extension Operation (EEO)). To briefly discuss, at the point where the remnant creating movement (i.e. NP scrambling to the vP spec) occurs, the complement of the phase head, the remnant VP must be spelled-out. Hence, the remnant VP can no longer move to the beginning of the sentence. On this approach, it seems that we can also explain the unavailability of *do*-support VP fronting with unaccusative verbs. However, it would incorrectly rule out verb-doubling VP fronting constructions with unaccusative verbs. I will leave this issue for future research.

- (34) a. \* $[t_1 \text{ mek-ki-nun}]_2$  ppang-ul<sub>1</sub> Mary-ka  $t_2$  hay-ss-ta.  
 eat-Nml-Top bread-Acc Mary-Nom do-Pst-Dec  
 ‘As for eating bread, Mary ate bread.’ [*do*-support VP fronting]
- b. ? $[t_1 \text{ mek-ki-nun}]_2$  ppang-ul<sub>1</sub> Mary-ka  $t_2$  mek-ess-ta.  
 eat-Nml-Top bread-Acc Mary-Nom eat-Pst-Dec  
 ‘As for eating bread, Mary ate bread.’ [verb-doubling VP fronting]

In addition, we can expect that scrambling of VP external arguments alone should be possible in both constructions. As expected, the VP-external argument *John-ekey* (Jung 2014) can undergo scrambling to the left-periphery in both constructions, as shown in (35).

- (35) a.  $[\text{kohamch-ki-nun}]_2$  John-ekey<sub>1</sub> Mary-ka  $t_1$   $t_2$  hay-ss-ta.  
 yell-Nml-Top John-Dat Mary-Nom do-Pst-Dec  
 ‘As for yelling, Mary did yell at John.’ [*do*-support VP fronting]
- b.  $[\text{kohamchi-ki-nun}]_2$  John-ekey<sub>1</sub> Mary-ka  $t_1$   $t_2$  kohanchey-ss-ta.  
 yell-Nml-Top John-Dat Mary-Nom yell-Pst-Dec  
 ‘As for yelling, Mary did yell at John.’ [verb doubling VP fronting]

Further supporting evidence in favor of the current claim comes from nominal verb constructions. Here, I assume that the light verb *ha* ‘do’ accompanied by the nominal verb is located in *v* and the nominal verb in Korean is located in *V* (see Park (2017) for the relevant discussion).

Recall the current argument that VP is targeted for fronting to derive the *do*-support VP fronting construction. If it is on right track, we can predict that the light verb cannot be fronted along with the nominal verb. As predicted, (36a) and (37a) including the light verb along with the nominal verb are ill-formed. At the same time, we can correctly expect that verb-doubling VP fronting constructions with nominal verbs can be derived. This is because the verb-doubling VP fronting constructions target *vP* (or the maximal projection of the verb) for fronting and hence the light verb can be fronted along with the nominal verb. As shown in (36b) and (37b), verb doubling VP fronting constructions are indeed well-formed.

- (36) a. \*syawe ha-ki-nun Mary-ka  $t$  hay-ss-ta.  
 shower do-Nml-Top Mary-Nom do-Pst-Dec  
 ‘As for taking a shower, Mary did take a shower.’  
 [*do*-support VP fronting]

b. syawe ha-ki-nun Mary-ka t syawe-hay-ss-ta.  
 shower do-Nml-Top Mary-Nom shower-do-Pst-Dec  
 ‘As for taking a shower, Mary did take a shower.’  
 [verb-doubling VP fronting]

(37) a. \*sayngkak ha-ki-nun Mary-ka t hay-ss-ta.  
 thought do-Nml-Top Mary-Nom do-Pst-Dec  
 ‘As for having a thought, Mary had a thought.’  
 [*do*-support VP fronting]

b. sayngkak ha-ki-nun Mary-ka t sayngkak-hay-ss-ta.  
 thought do-Nml-Top Mary-Nom thought-do-Pst-Dec  
 ‘As for having a thought, Mary had a thought.’  
 [verb-doubling VP fronting]

On the other hand, when VP, instead of vP, is targeted for fronting, we can predict that the grammaticality of the two VP fronting constructions with nominal verbs becomes reversed. As shown in (38) and (39), when VP is fronted, the *do*-support fronting construction is acceptable whereas the verb-doubling construction is unacceptable. The grammatical asymmetry can be straightforwardly accounted for under the current claim that the targeted materials for fronting differ between the two constructions.

(38) a. syawe-nun Mary-ka t hay-ss-ta.  
 shower-Top Mary-Nom do-Pst-Dec  
 ‘As for taking a shower, Mary did take a shower.’  
 [*do*-support VP fronting]

b. \*syawe-nun Mary-ka t syawe-hay-ss-ta.  
 shower-Top Mary-Nom shower-do-Pst-Dec  
 ‘As for taking a shower, Mary did take a shower.’  
 [verb-doubling VP fronting]

(39) a. saynkak-un Mary-ka t hay-ss-ta.  
 thought-Top Mary-Nom do-Pst-Dec  
 ‘As for having a thought, Mary had a thought.’  
 [*do*-support VP fronting]

- b. \*saynkak-un Mary-ka t sayngkak-hay-ss-ta.  
thought-Top Mary-Nom thought-do-Pst-Dec  
'As for having a thought, Mary had a thought.'

[verb-doubling VP fronting]

## 5. Conclusion

In this paper, I have shown that there are two types of VP fronting constructions in Korean; 1) *do*-support VP fronting 2) verb-doubling VP fronting constructions. I have shown that both constructions are derived via verb phrase movement rather than base-generated in the left-periphery. Then, I have shown that despite their similarities, *do*-support VP fronting and verb doubling fronting exhibit different behaviors with accusative verbs, transitive verbs and negation. I have proposed that the difference in the size of the displaced phrase and its interaction with the syntactic constraint give rise to the afore-mentioned differences between the two constructions.

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