

# **Predicate Level Focus Movement in Korean**

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## **I. Introduction**

The purpose of this paper is twofolds: one is to present an analysis of predicate focus construction in Korean and the other is to discuss its implications on the theory of verbal morphology and feature checking movement.

Through this paper, it will be shown that Focus movement of TrP (or TP) in Korean creates stranded bound morphemes, contrary to Kang (1988). I will argue that these bound morphemes (or features) trigger verb duplication or do support in the construction, and this conclusion argues against Koopman (1984). In particular, languages differ as to which of the two options (i.e. spell out of the copy or do support or both) are available to remedy the otherwise ungrammatical structure. This difference among the languages will be derived from the different position of the bound morphemes in each language, contrary to Koopman (1984).

In addition, I will present syntactic and morphological differences between TrP and TP focus movement. Specifically, the morphological difference between them will lead us to conclude either that Chomsky's (1993) lexicalist view of verbal morphology can not be extended to the so called agglutinative languages or that his view has to be modified. Pursuing the

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second possibility, I will propose that not the inflected verbs but the verbs with features are taken from the lexicon and languages can differ whose feature of the verbs and the functional heads (e.g. T) is spelled out. It will be shown that Korean belongs to the case where the tense feature of the T (not the tense feature of the verb) is spelled out and this conclusion naturally solves the paradox which will be discussed.

The interaction between wh-movement and focus movement will be shortly discussed.

## II. Background

### II.1 Verb Duplication

In Korean, there are sentences where two identical verbs appear:

- (1) John-i            computer-lul        sa-ki-nun            sa-ss-ta  
                       -Nom        computer-Acc        buy-ki-Con<sup>1)</sup>        buy-T-M

Indeed, the fact is that John bought a computer, but...

In the example (1), the first appearing verb *sa* (buy) is followed by a nominalizer *ki* and a focus (contrast) marker *nun*, and interestingly an identical verb to the first one appears again with the tense and mood markers.<sup>2)</sup>

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1) Con = Contrastive marker

2) Tense markers can be attached to the first verb also:

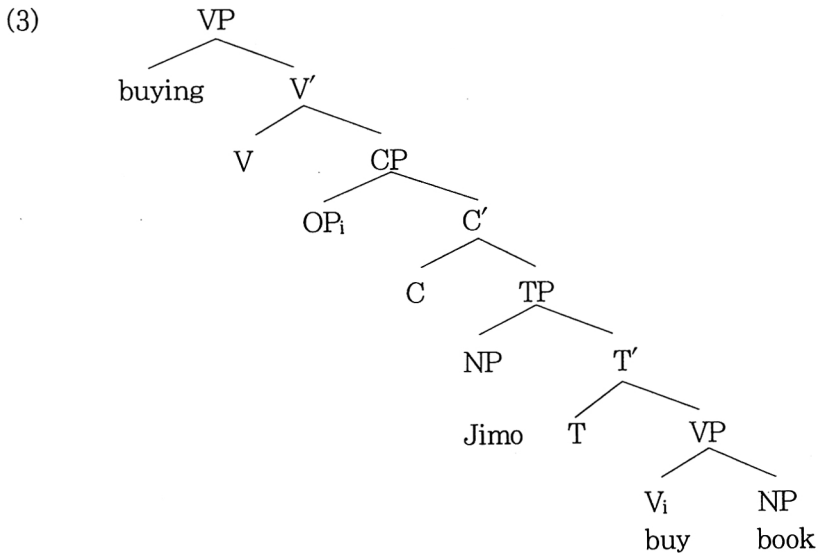
- (i) John-i            computer-lul        sa-ss-ki-nun            sa-ss-ta  
       John-Nom        computer-Acc        buy-Past-ki-Focus        buy-Past-M  
       Indeed, the fact is that John bought a computer, but...

For the time being, I will only concentrate on the sentences where the

The verb duplication phenomenon itself in (1) indicates its similarity to the Predicate Cleft Construction (PCC) in Kwa languages (Koopman 1984, Dekydtspotter 1995, Collins 1995):

- (2) rira        ni        Jimo o        ra        iwe  
 buying    be           Agr    buy       book  
 It is buying that Jimo bought a book.

For example, Collins (1995) claims that the nominalized verb *rira* in (2) is the subject of a copular sentence. An empty operator moves to the spec of CP, leaving a copy of it in the trace position, and the copy appears overtly:



Not that surprisingly, Kang (1987) claims that the verb tense marker is attached only to the second verb..

duplication in (1) results from a verb movement and a subsequent spell out of a trace of the verb.

Following this insight, I claim that a movement is involved in (1) and the duplication of the verb is due to the spell out of the copy of the moved verb.

## II.2 PCC vs. VP focus construction

The Korean example (1), however, shows non-trivial differences from the PCC in Kwa languages. First of all, the semantics of (1) is quite different from that of (2). For the sake of demonstration, let us compare (1) to the VP cleft example as in (4).

- (4) *rira-iwe*        *ni*    *Jimo o*        *ra*    *iwe*        Yoruba  
       book-buying be        Agr        buy book  
       It is book-buying that Jimo bought a book.

In (4), the moved VP *rira iwe* is new information, which is evidenced by the fact that (4) can be an answer to the question (5) when uttered out of the blue.

- (5) What did x do?

On the other hand, (1) repeated as (7) is not felicitous as an answer to (5), unless it is somehow presupposed that John was supposed to buy a computer (and something else possibly).

- (7) John-i        [computer-lul    sa-ki]-nun        sa-ss-ciman  
       -Nom computer-Acc    buy-ki-Con        buy-T-M  
       Indeed, the fact is that John bought a computer, but (he did not pay.)

(7) can be an answer to (5) only in the following scenario: Mary hired Bill to have him watch John. On Monday, Mary ordered John to buy a computer. On Tuesday, Mary asked Bill what John did on Monday. In this scenario, (7) is a perfect answer to the question (5), and it implies that *John bought a computer, but he did not pay*. As the demonstration above clearly shows, the VP *computer-lul sa-ki-nun* in (7) is not new information. Rather, it is presupposed among the speakers, and it mainly has a contrastive meaning as the gloss shows. Note also that (7) does not have a topic meaning such that *As for buying computer, John bought it*.

Secondly, Korean does not have a cleft construction of NPs, unlike English and other Kwa languages. Accordingly, it is hard to imagine that Korean would have VP cleft construction.

From these, I conclude that (7) is not a Predicate Cleft Construction. I will rather name (7) as VP focus construction, since a contrastive meaning is one interpretation of focus (narrow) in Selkirk (1984)'s sense or it can be seen as an association of focused XP with a contrastive marker *nun* like the association of the focused XP with *only* in English (Jackendoff 1972).

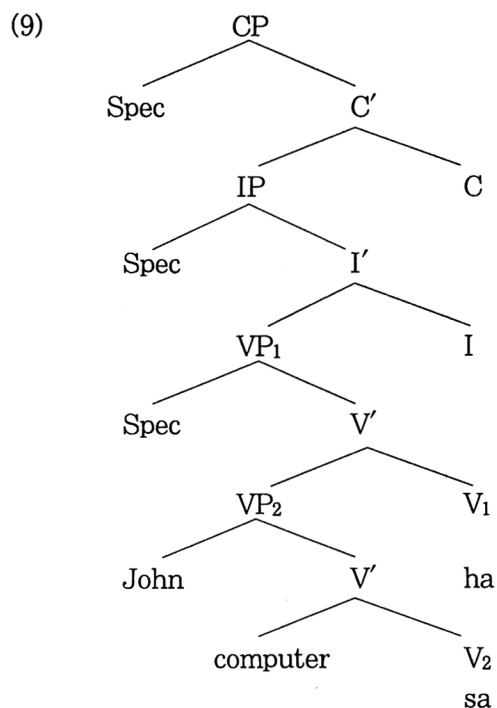
### II.3 Kang(1987)'s analysis

Kang (1987)'s main concern was sentences in which a dummy verb *ha* appears in addition to the content verbs:

(8) John-i            computer-lul        sa-ki-nun        hae-ss-ciman  
       -Nom        computer-Acc        buy-ki-Con        do-T-M

Indeed, the fact is that John bought a computer, but (he did not pay.)

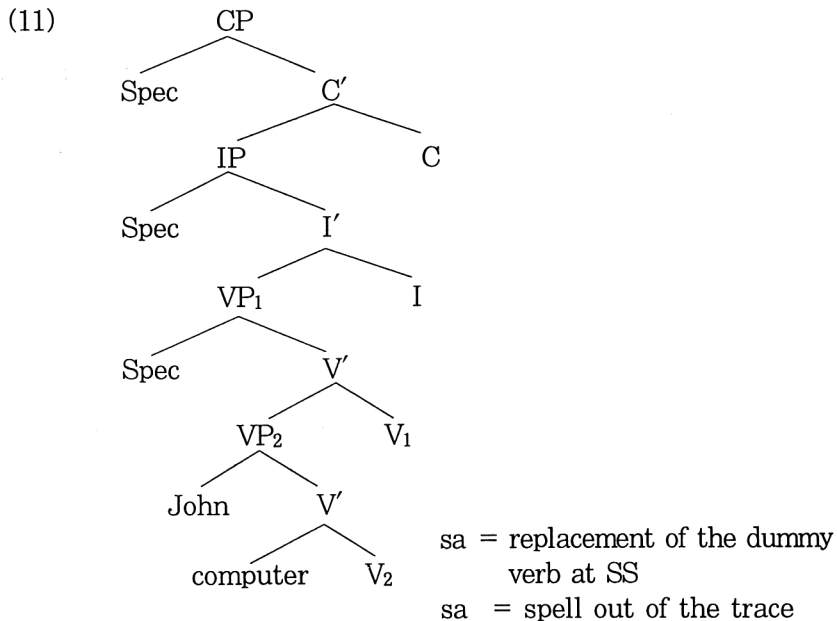
(8) is minimally different from (7) in that the second verb in (8) is a dummy or light verb *do*, while the full duplication of the content verb is used as a second verb in (7). Kang (1987) proposed a recursive VP complementation structure for (8):



In (9), the dummy verb *ha* (do) takes a VP complement, of which the content verb *sa* is the head. Kang argued that the dummy verb *ha* is just a pleonastic verb, occupying an empty verb position in S-S, hence the content verb *sa* substitutes for it by an LF movement due to Full Interpretation (Chomsky 1986). In addition, Kang claimed that there is a syntactic reflex of this LF movement, which is the verb duplication construction:

- (10) John-i computer-lul sa-ki-nun sa-ss-ciman  
 -Nom computer-Acc buy-ki-Con buy-T-M  
 Indeed, the fact is that John bought a computer, but (he did not pay.)

According to him, (10) results from the overt verb movement of *sa* to the dummy verb position, and the two occurrence of the verb is due to the spell out of the trace of the moved verb:



I agree with him that (i) the structure of (10) is very similar (almost identical) to (8), and the verb duplication in (10) stems from the spell out of the trace of the moved category. I will call (8) and (10) as DO and COPY focus construction respectively. I, however, reject his analysis based on these three facts.

First, Kang's analysis incorrectly predicts that only verb can be repeated in the trace position, because it is just a verb which has moved in (10). However, an object also can be repeated in the case of COPY focus construction:

- (12) John-i computer-lul sa-ki-nun computer-lul sa-ss-ciman  
 -Nom computer-Acc buy-ki-Con computer-Acc buy-T-M  
 Indeed, the fact is that John bought a computer, but (he did not pay.)

Kang's analysis can not account for the second occurrence of the object in (12), since objects are not a part of the trace and there is no position where that object can sit in, in his structure. This clearly shows that it is not just a verb which underwent a movement. It is at least a VP.

Secondly, negative element *an* must be repeated with the verb in the case of COPY focus construction:

- (13) John-i computer-lul *an* sa-ki-nun computer-lul *an* sa-ss-ciman  
 -Nom computer-Acc Neg buy-ki-Con computer-Acc Neg buy-T-M  
 Indeed, the fact is that John did not buy a computer, but (he got it as a present)

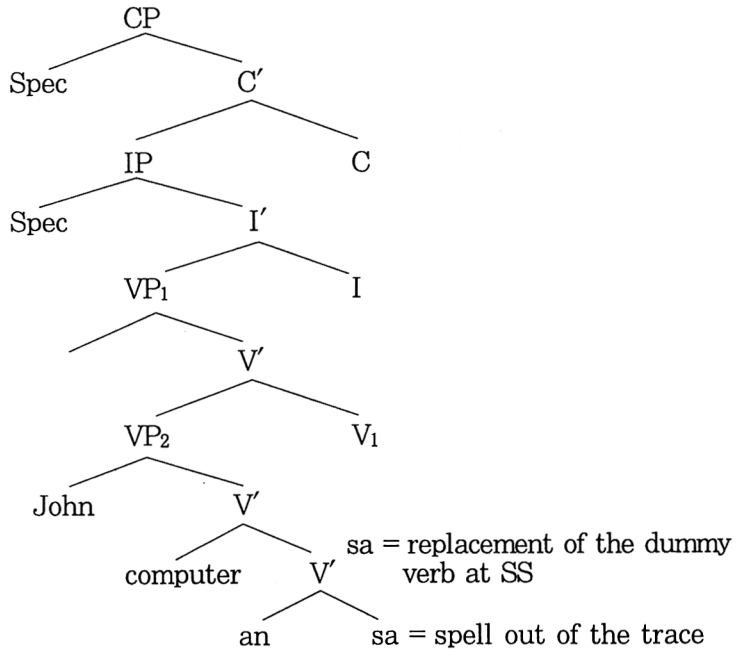
In (13), the negative element *an* in both positions has to appear. Kang can not explain (13) regardless of whether the negative element *an* is a head or not, because there is no reason that a copy of the verb is obligatorily spelt out as Neg + verb. Rather, his analysis incorrectly predicts that the right form of the negative sentence is the following depending on the assumption on the status of the negative element *an*. If *an* is an adverb which merges right after the verb merges as in (14a)



and the verb *sa* undergoes a head movement to V<sub>1</sub> leaving a copy which is spelt out, the right form should be (14b), which is not the case.

(14) *An* as a VP adverb

a.

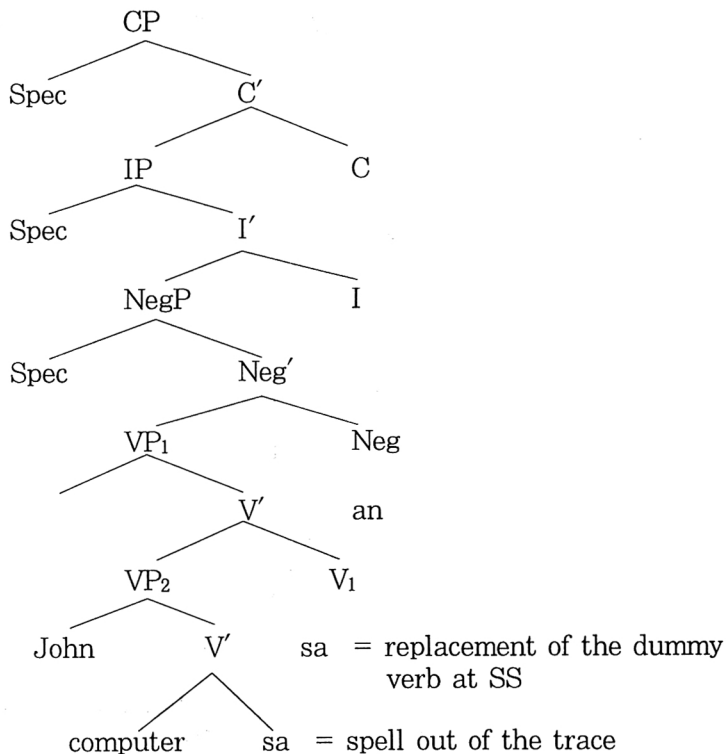


- b. \*John-i            computer-lul            **an** sa-ki-nun            sa-ss-ciman  
                       -Nom            computer-Acc            Neg buy-ki-Con            buy-T-M  
 Indeed, the fact is that John did not buy a computer, but  
 (he got it as a present)

If *an* is a head as in (15a) and the verb *sa* undergoes a movement to V<sub>1</sub>, the right form should be (15b), which is also not the case.

(15) *An* as a Neg Head

a.



- b. \*John-i computer-lul sa-ki-nun an-sa-ss-ciman  
 -Nom computer-Acc buy-ki-Con Neg-buy-T-M

Indeed, the fact is that John did not buy a computer, but  
 (he got it as a present)

Finally, Kang's analysis can not explain why a tense marker also can be attached to both verbs: (in addition to the option that a tense marker is only attached to the second verb as shown in (8) and (10)):

- (16) <sup>?</sup>John-i computer-lul sa-ss-ki-nun hae-ss-ciman...  
 -Nom computer-Acc buy-Past-ki-Con do-Past-M  
 Indeed, the fact is that John bought a computer, but (he did not pay.)
- (17) John-i computer-lul sa-ss-ki-nun sa-ss-ciman...  
 -Nom computer-Acc buy-Past-ki-Con buy-Past-M  
 Indeed, the fact is that John bought a computer, but (he did not pay.)

Under the verb movement theory in which verbs move to pick up an inflection, it is hard to imagine why a tense marker appears two times in his structure, since only one verb will move up to T to pick up a tense morpheme. Under the feature checking theory of verb movement, he might be able to explain the double occurrences of tense marker in (17), by saying that an inflected verb *sa-ss* is selected from the lexicon and it substitutes for a dummy verb at SS and undergo a subsequent verb movement to check off the *v* feature of T, and the copy of the inflected verb is spelt out in a trace position. However, he can not then explain why the spell out of the tense marker in the trace position is not obligatory. To put it differently, it is hard for him to account for why (18) is also possible:

- (18) John-i computer-lul sa-ki-nun sa-ss-ciman...  
 -Nom computer-Acc buy-ki-Con buy-Past-M  
 Indeed, the fact is that John bought a computer, but (he did not pay.)

In addition, it is not clear how he explains the double occurrences of the tense marker in the case of Do Focus Construction (16). It is obvious that the feature checking theory does not help. The

verb *sa* is not a spell out of the trace, in (16), hence the tense marker on that verb can not be accounted for as (17). Furthermore, it is obscure what he means by substitution at LF. If the inflected form is selected from the lexicon as the feature checking theory of verb movement says, can the verb *sa-ss* in (16) replace the inflected verb *hae-ss*?

By now, it would be clear that Kang's analysis can not be right. In the next section, I will present a new analysis of the VP focus construction, adopting Chomsky's(1995) and Collins (1996)'s theory of movement. In particular, I will follow Collins's (1996) phrase structure where an external argument is introduced as a spec of TrP.

### III. VP Focus Construction

I propose that in (19) and (20), VP has moved to the spec of FocusP before spell out, and the reappearance of verbs *sa* (buy) and *hae* (do) are due to otherwise stranded tense and mood morphemes:

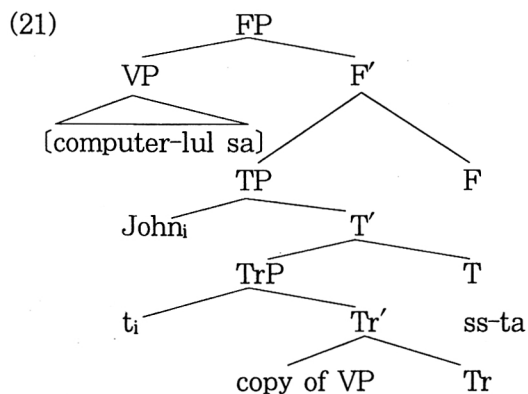
- (19) John-i    [computer-lul    sa-ki]-nun    sa-ss-ciman...  
          -Nom    computer-Acc    buy-ki-Con    buy-Past-M  
          Indeed, the fact is that John bought a computer, but (he  
          did not pay.)
- (20) John-i    [computer-lul    sa-ki]-nun    hae-ss-ciman...  
          -Nom    computer-Acc    buy-ki-Con    do-Past-M  
          Indeed, the fact is that John bought a computer, but (he  
          did not pay.)

In particular, I claim that the recurrent verb *sa* (buy) is a spell out of the copy of the moved VP and it moves up to T to

support tense and mood morphemes. On the other hand, in (20), *hae* (do) is directly merged to T so that it supports tense and mood morphemes. Notice that in (20), the need of bound morphemes which trigger the spell out operation is satisfied by another operation do support. Accordingly, spell out operation is unnecessary in (20), hence by Economy none of the copy of the moved VP can be spell out, in the case of DO focus construction.

### III.1 Focus Phrase and Focus Movement

Following the insight of Chomsky (1975, 1995), I assume that Focus phrase (FP)<sup>3)</sup> is merged after the TP is merged and the elements with a focus feature moves to the spec of F to check off the focus feature of F. In Korean, the focus movement takes place before spell out. Under this assumption, the structure of VP focus construction is as follows:



3) I am not saying here that FP exists as an independent phrase. The landing site of focus movement i.e. the position where the focus feature of VP is checked could be the spec of C or the spec of other projections (spec of T is also possible) as will be discussed later, but I will use FP for the ease of exposition.

In (21), VP has moved to the spec of FP to check off the strong focus feature of F. As a result of the focus movement of VP, a bare verb appears in the spec of F, which violates a language particular morphological constraint that verbs have to be followed by a mood marker (Choi 1937, Nam 1984):

- (22) a. \*sa-ss                      b. sa-ss-ta  
           buy-Past                    buy-Past-Mood

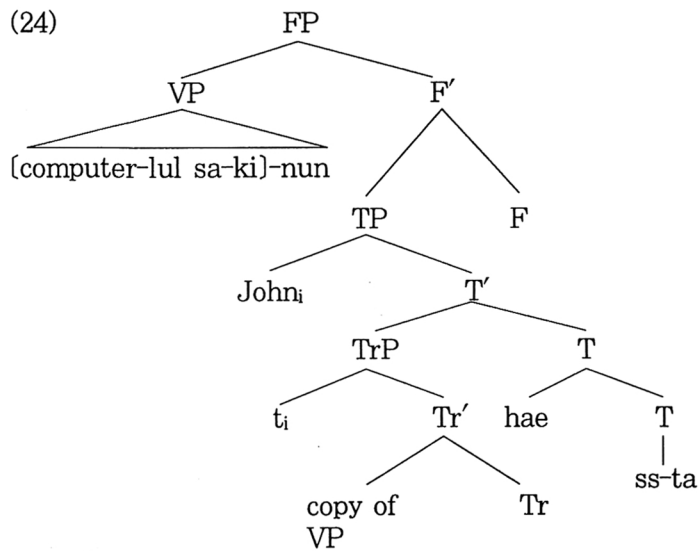
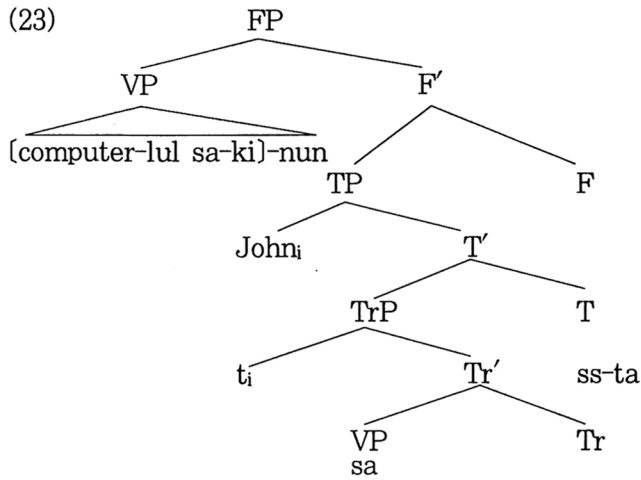
That is, a mood marker has to be attached to the verb wherever it appears. Accordingly, one sort of mood marker *ki* is attached to the verb in (21).<sup>4)5)</sup> In addition, I assume that *nun* is an overt realization of the focus feature as *i* or *lul* is an overt realization of case feature. I also assume that the word order in (19) and (20) results from the subsequent movement of subject.

### III.2 COPY vs. DO VP focus construction

The focus movement of VP brings about another problem: namely, tense and mood markers, which are bound morphemes, are stranded alone as in (21). Two options are available to

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- 4) Kang (1987) proposed that *ki* is attached to the verb in (3) to get a case from 'the upper verb' in his VP complementation structure. Since I rejected his analysis in the previous section, I will not consider this possibility (which is possible only under his analysis). Furthermore, there is no evidence that the repeated verb has a case assigning ability.
- 5) I do not have a good answer why *ki* which is a nominalizer (Kang 1987) is selected among the various mood markers at this time, but I speculate that this might be related to presence of the contrastive marker *nun*. Furthermore, I do not have a good story for why a mood marker which is believed to be a C (Cheng 1991) is attached to the verb. I will leave them for the future research.

rescue this situation: Either (i) the copy of the VP is spelt out and moves up to T, or (ii) a dummy verb *hae* (do) is merged to T:



To put it in another way, Copy and Do focus construction have almost identical structure, and *do* and the duplicated verb appear due to the same reason. However, the manner of achieving the goal is different: one is a spell out of the trace (i.e. copy of the moved VP) and the other is a merge of a dummy verb.

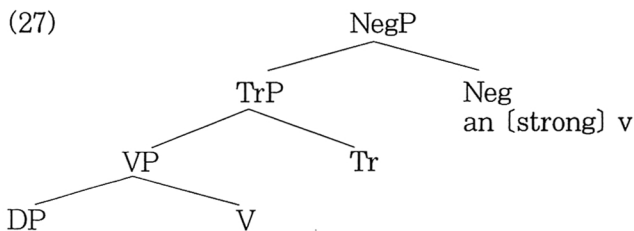
Hence, the position where each verb is merged is different:  $V^0$  and  $T^0$  for Copy and Do Focus construction, respectively. This is evidenced by the following:

(25) computer-lul an sa-ki-nun \*(an) sa-ss-ciman... Copy  
 computer-Acc Neg buy-ki-Con Neg buy-Past-M

(26) computer-lul an sa-ki-nun (\*an) hae-ss-ciman... Do  
 computer-Acc Neg buy-ki-Con Neg do-Past-M

Indeed, the fact is that John did not buy a computer, but (he did not pay.)

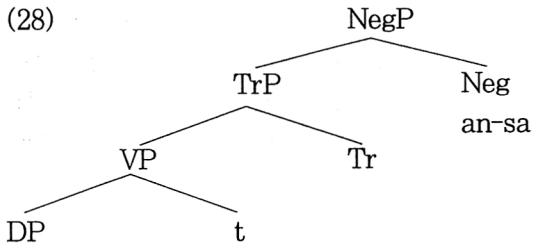
In the case of Copy Focus construction, the negative element *an* must appear with a copy of the verb, while it must not in the case of Do Focus construction. To see the point clearly, let us consider the derivation of the example first. NegP in Korean has been assumed to intervene between TP and TrP<sup>6)</sup>:



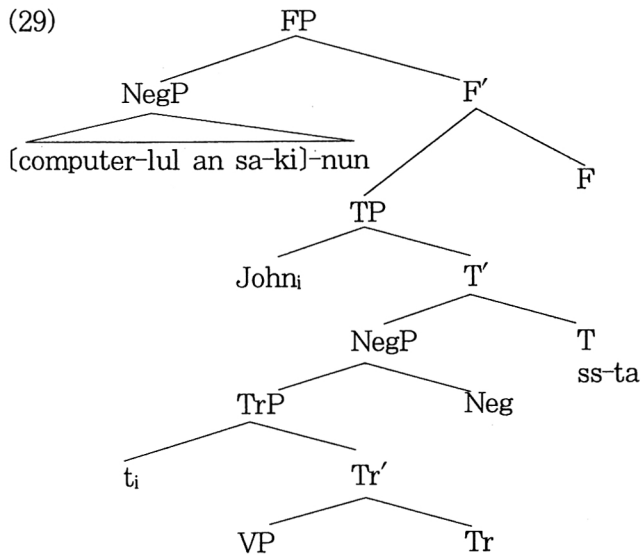
6) In another paper, I argued that NegP may not be projected in the negative sentences. Under that system, *an* can be either overt realization of Neg feature or can be directly merged to Tr. However, I will keep NegP analysis in this paper for the sake of demonstration.



Let us assume that the negative head *an* has a strong *v* feature which has to be checked off. Strong features has to be checked off before other projections are projected, hence *V* incorporates to *Neg* before *TP* is merged:



If *NegP* undergoes a focus movement after *FP* merges, it results in (29).

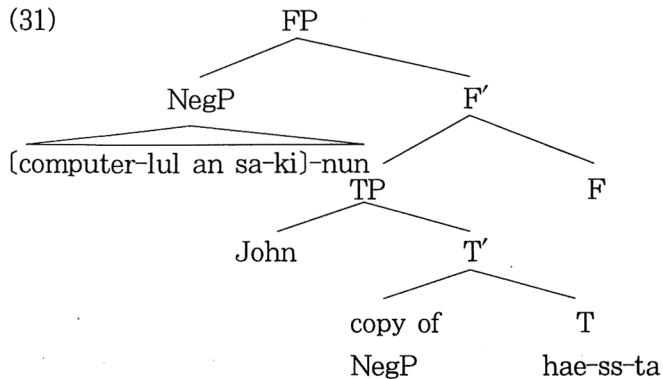


As the case of simple *VP* focus movement, the stranded tense

has to be supported. Accordingly, the copy of the NegP, usually the head, is spelt out. Since the verb is incorporated to the negative head before the NegP underwent a focus movement, the complex of verb and the negative head *an sa* appear in the trace position. I attribute the obligatory spell out of the complex form (instead of the spell out Neg head) to the language particular morphological property that excorporation is not possible. If *do* in (26) is also a spell out (partial) of the trace or is merged to V and then moves up to T, the right form should be the following:

- (30) \*computer-lul an sa-ki-nun an hae-ss-ciman... Do  
 computer-Acc Neg buy-ki-Con Neg do-Past-M  
 Indeed, the fact is that John did not buy a computer,  
 but (he did not pay.)

The unacceptability of (30) and the acceptability of (26) confirms my claim that *hae* (do) is a dummy verb and merges to T directly. Neg head is not repeated with the dummy verb *hae* (do), since *hae* merges to T directly after NegP moves to the spec of F:



In (31), the copy of the NegP can not be spelt out as it can in the COPY Focus construction:

- (32) \*computer-lul an sa-ki-nun John-i an-sa hae-ss-ta  
 computer-Acc Neg buy-ki Con John-Nom Neg-buy do-Past-Mood

This is because a copy of the moved NegP does not have to appear overtly. The stranded tense and mood markers are already supported by the dummy verb. Therefore, the spell out option is prohibited by Economy. In addition, the above demonstration shows that the *v* feature of T is weak in Korean (unlike the *v* feature of Neg). Otherwise the verb in the focus position would have to contain a tense marker, which is not the case.

This difference between Do and Copy focus construction also accounts for the following contrast:

- (33) John-i computer-lul sa-ki nun computer-lul sa-ss-ciman... Copy  
 -Nom computer-Acc buy-ki Con computer-Acc buy-Past-M

Indeed, the fact is that John bought a computer, but (he did not pay.)

- (34) \*John-i computer-lul sa-ki nun computer-lul hae-ss-ciman... Do  
 -Nom computer-Acc buy-ki Con computer-Acc do-Past-M

Indeed, the fact is that John bought a computer, but (he did not pay.)

In the case of Copy focus construction, object can reappear with a verb whereas it is not possible in the case of Do focus construction. As before, this is because spell out option is blocked in (34) by Economy. In (33), it is the VP which has moved out, hence the copy of the VP can appear overtly, which

means that objects also can show up with a verb.

Notice that Kang (1987) could not offer any explanation for these facts as I mentioned before. By contrast, my analysis derives the differences between them from the different nature of the verb: one is the spell out of a copy and the other is a dummy verb. This is an advantage of my analysis.

Before leaving this section, let me mention this: it is not clear why Korean allows two different processes for one purpose, namely supporting a tense and mood morphemes considering that 'do support' only takes place when verbs can not move in English and only 'do support' is available in Japanese VP focus movement.<sup>7)</sup> (Kunio 1994)

- |      |          |         |                 |      |
|------|----------|---------|-----------------|------|
| (35) | *gohan-o | tabe-wa | tabe-ta-kedo    | Copy |
|      | rice-Acc | eat-Con | eat-Past-but... |      |
| (36) | gohan-o  | tabe-wa | si-ta-kedo      | Do   |
|      | rice-Acc | eat-Con | do-Past-but...  |      |
- Indeed (I) ate rice, but (I did not cook)

In view of the property of 'do support', Japanese is also somewhat strange because only 'do support' is available in a situation where a verb can move up to T<sup>8)</sup>. In section V.3, these puzzles will be discussed.

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7) By contrast, in case of TP fronting, 'do support' is not available in Japanese, unlike Korean where both options are still available as they are in VP fronting. In Japanese, Copy of the TP must be spelt out. I will deal with this later.

8) Japanese also allows a spell out copy and it is believed to move up to T, in the case of TP fronting.

### III.3 TrP Movement?

Up until now, I have not provided any evidence for whether there is a movement and whether it is really a VP which undergoes a movement in the sentences that we have looked at.

For the first question, the answer is positive: there is indeed a movement in the VP focus construction. First, the fact itself that an unselected duplicated verb appear indicates that something has moved. Secondly, VP focus movement can be successive cyclic:

- (37) Computer-lul sa-ki-nun [John-i [nae-ga  
 computer-Acc buy-ki-Con [John-Nom buy-T-M  
 t sa-ss-ta-ko] saengkakha-n-ta]  
 t buy-T-M-C] think-T-M]  
 John think that I bought a computer. (but...)

In (37), VP has undergone a long distance movement across the CP boundary. However, VP focus movement is sensitive to Islands:

- (38) \*Computer-lul sa-ki-nun [John-i<sub>CP</sub>[ t computer-lul  
 computer-Acc buy-Ki-Con [John-Nom [( t computer-Acc  
 san-n) OP] salam-ul manna-ss-ta]  
 buy- ) OP] person-Acc meet-T-M]  
 \*John met a person who really bought a computer. (but...)

In (38), VP could not escape from the CNPC, as its unacceptability shows. From these facts that (i) VP can cross a tensed CP boundary, and that (ii) VP movement is sensitive to the islands, I conclude that VP underwent a movement in VP

focus construction (Huang 1982).

For the second question, the exact category which undergoes a movement in this construction seems to be larger than a VP. Huang (1993) showed that the fronted VP in (37) contains a subject trace in it based on the following contrast in the reconstruction effects with respect to binding condition C:

- (39) a. \*Criticize John<sub>i</sub>, he<sub>i</sub> said I will not.  
 b. Criticize John<sub>i</sub>, I said he<sub>i</sub> will not.  
 (40) a. \*How many picture of John<sub>i</sub> does he<sub>i</sub> think that I like?  
 b. How many pictures of John<sub>i</sub> do you think that he<sub>i</sub> will like?

In general, Binding Condition C effect is weakened when the pronoun appears in the embedded clause as in (40). Huang (1993) attributed the weakening effect in (40b) to a broader weakening condition that when either member of the coindexed pair {NP1 NP2} in a crossover configuration is embedded to some sufficient degree with respect to the other member, cross over is allowed. According to this condition, the pronoun in (40b) is sufficiently embedded relative to the pronoun in (40a), hence the coindexed pair {John<sub>i</sub>, he<sub>i</sub>} is allowed. Likewise, the pronoun in (39b) is also sufficiently embedded, accordingly the coindexed pair {John<sub>i</sub>, he<sub>i</sub>} should be allowed, in principle. Binding Condition C effect, however, is not weakened in (39b). Huang argued that this is because the fronted category in (21) contains a subject trace unlike the one in (40):

- (41) [<sub>t</sub> Criticize John<sub>i</sub>]<sub>i</sub>, I said he<sub>i</sub> will not. = (39b)

Unlike (40), in (41), coindexing John with the pronoun causes John to be coindexed with the trace in the fronted category as

well since the trace is a trace of the subject, i.e. the pronoun. Since the coindexed pair (t, John) does not meet the requirement of weakening condition, no weakening effect is observed in (41).

This contrast is also observed in the VP focus construction in Korean:

- (42) a. \*elmana maun John<sub>i</sub>-uy sacin-ul ku<sub>i</sub>-nun Mary-ga  
 How many -Poss picture-Acc he-Top -Nom  
 kaciko-iss-ta ko saengkakha-ni?  
 have-T-M C think-M?  
 ?'How many picture of John<sub>i</sub> does he<sub>i</sub> think that Mary has?
- b. elmana maun John<sub>i</sub>-uy sacin-ul Mary-nunku<sub>i</sub>-ga  
 how many -Poss picture-Acc -Topic he-Nom  
 kaciko-iss-ta ko saengkakha-ni?  
 has-T-M C think-M?

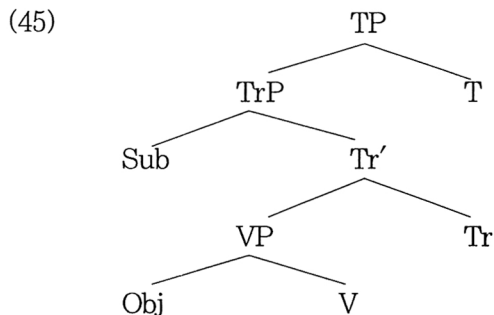
Like English, Binding Condition C effect is weakened when the pronoun occurs in the embedded sentence if NP undergoes a movement as in (42b). However, when a predicate movement is involved, no weakening effect is observed:

- (43) a. \*John<sub>i</sub>-ulpiphan ha-ki nun ku<sub>i</sub>-nun  
 -Acc criticize-ki Con he-Top  
 Mary-ga piphanha-ss-ta ko mahae-ss-ta  
 -Nom criticize-Past-M C say-Past-M  
 \*Criticize John<sub>i</sub>, he<sub>i</sub> said Mary did.
- b. \*John<sub>i</sub>-ulpiphanha-ki nun Mary-nun  
 -Acc criticize-ki Con -Top  
 ku<sub>i</sub>-ga piphanha-ss-ta ko mahae-ss-ta  
 he-Nom criticize-Past-M C say-Past-M  
 \*Criticize John<sub>i</sub>, Mary said he<sub>i</sub> did.

In (43b), the pronoun appears in the embedded clause, but (43b) is as bad as (43a). This is analogous to the English predicate fronting. That is, (43b) is bad even though the pronoun is embedded enough to be subject to the weakening condition, because the trace in the fronted predicate phrase will then be coindexed with John and the coindexed pair {t, John} does not meet the requirement of weakening condition. The unacceptability of (43b), accordingly, suggests that the fronted predicate phrase in Korean does contain a subject trace in it. This claim is supported by the following:

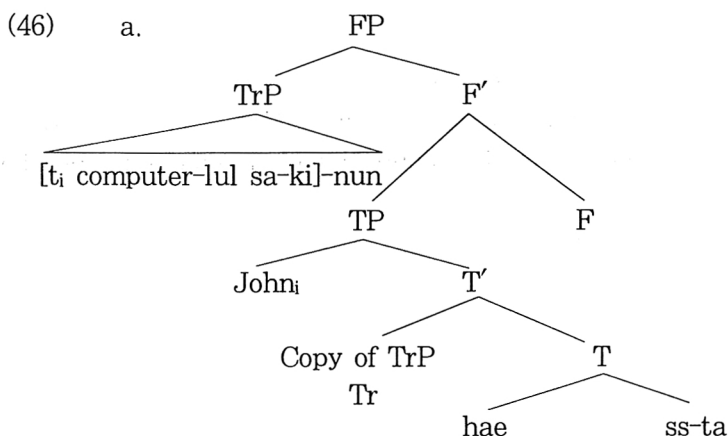
- (44) Ku casin<sub>i</sub>/\*<sub>j</sub>-ul    piphanha-ki-nun    John<sub>j</sub>-un  
 himself-Acc            criticize-ki-Con            -Top  
 Bill<sub>i</sub>-i                    piphanhae-ss-ta ko    malhae-ss-ta  
                               -Nom                    criticize-Past-Mood C    say-Past-Mood

In (44), the anaphor *ku casin* has to be bound by the subject of the embedded clause and this is easily explained if we assume that the fronted category in (44) contains a subject trace in it. This in turn means that the fronted category is not a VP but a TrP in the phrase structure that I am adopting (Collins 1995):





In (45), subject is generated in the spec of Tr and moves to the spec of T to check off the strong EPP feature of T, hence the smallest category which contains a subject trace is a TrP. Accordingly, I conclude that the moved category in the VP focus construction is in fact a TrP:



- b. Computer-lul    sa-ki nun    John-i    hae-ss-ta  
       -Acc    buy-ki Con    -Nom    do-Past-M

This is also supported by the fact that a NegP which is believed to be larger than a VP can undergo a focus movement. From now on, I will call (46b) as TrP Focus Construction.

The next question is then whether the moved predicate phrase in (46b) is smaller than a TP. The fact that the verb in the spec of F does not contain a tense morpheme in (46b) indicates that it is quite likely that they are instances of TrP fronting, i.e. smaller than a TP. I will provide some syntactic evidence for this claim in the next section comparing TrP movement and TP movement.

#### IV. TP Focus Construction

Until now, we have looked at the sentences where the verb in the sepc of F does not contain a tense marker, and I proposed that it is a TrP that undergoes a focus movement in those sentences:

- (47) John-i        [computer-lul    sa-ki] nun    sa-**ss**-ta.  
          -Nom computer-Acc    buy-ki-Con    buy-Past-M  
 Indeed, the fact is that John bought a computer, (but he did not pay).
- (48) John-i        [computer-lul    sa-ki] nun        hae-**ss**-ta.  
          -Nom computer-Acc    buy-ki-Con        do-Past-M  
 Indeed, the fact is that John bought a computer, (but he did not pay).

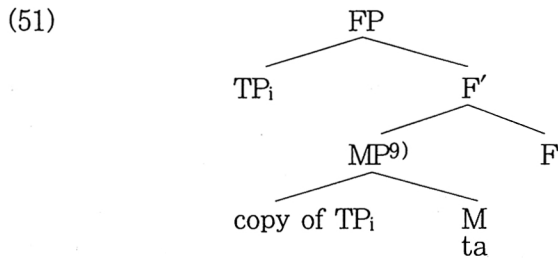
However, a tense marker can also be attached to the verb in the focus position as well as to the one in the trace position:

- (49) John-i    computer-lul    sa-**ss**-ki-nun    sa-**ss**-ta.  
          -Nom computer-Acc    buy-Past-ki-Con    buy-Past-M  
 Indeed, the fact is that John bought a computer, (but he did not pay).
- (50) John-i    computer-lul    sa-**ss**-ki-nun hae-**ss**-ta.  
          -Nom computer-Acc    buy-Past-ki-Con do-Past-M  
 Indeed, the fact is that John bought a computer, (but he did not pay).

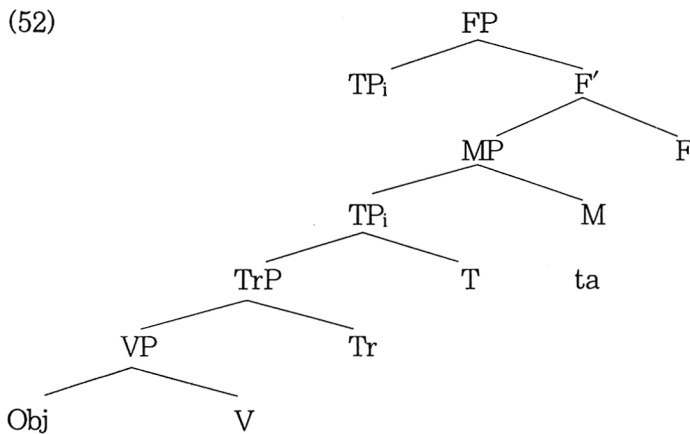
In this section, I will show that this construction has properties that are different from VP focus construction and should therefore be given a different analysis.

IV.1 TP movement

I propose that (49) and (50) are instances of TP focus movement unlike (47) and (48). TP undergoes a movement to the spec of F in (49) and (50).



As a result of TP focus movement, a mood marker is stranded alone. As with TrP focus movement, in principle there can be two options to remedy the situation: spell out the copy or insert *do*. Let us first consider the case where a copy of the moved TP is spelt out:

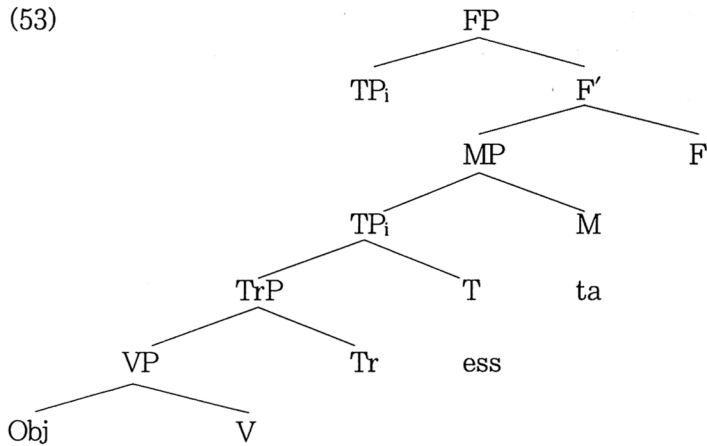



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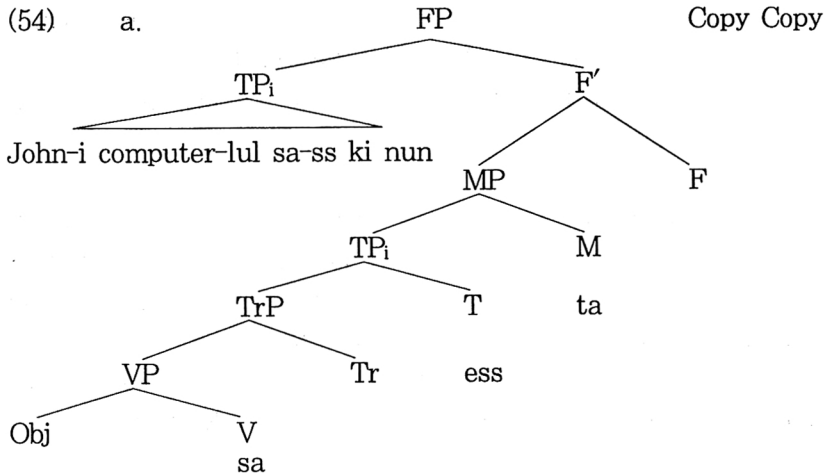
9) MP=Mood Phrase

In the copy of the moved TP, there are two candidates (substantial heads) which can serve as a supporter of a mood morpheme: namely V and T. Remember that verb is in situ since the v feature of T is weak in Korean as I showed in the previous section. Which of the two then should be spelt out? I claim that it is the highest head which is spelt out, i.e. T in (52). Spelling out T is more economical than spelling out V because T is closer to M than V, which in turn means that the length of movement is shorter when T is spelt out than when V is spelt out. Alternatively, T is closer to M than V (or Tr), hence spelling out V and then moving it to M is blocked by presence of T. Accordingly the only option available is spelling out T.

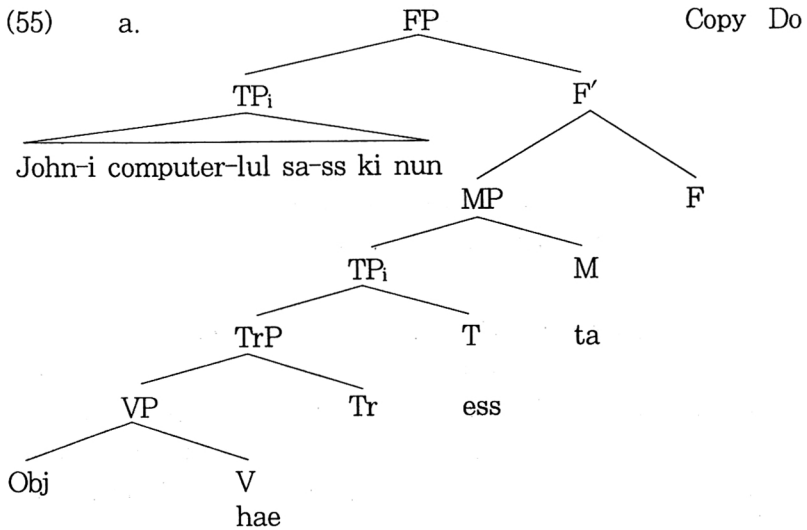
If T is spelt out to support the mood morpheme, it results in (53).



To spell out T solves a problem of M, but it brings in another problem: The tense morpheme itself has to be supported. Accordingly, another reaction has to be taken: to spell out something i.e. V or to insert *do*:



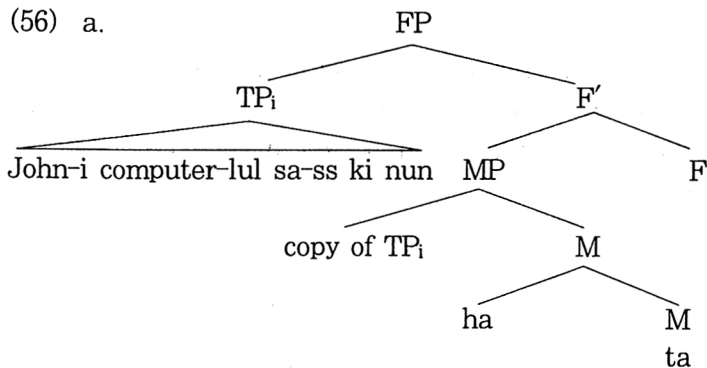
- b. John-i computer-lul sa-ss-ki-nun sa-ss-ta.  
 -Nom computer-Acc buy-Past-ki-Con buy-Past-M  
 Indeed, the fact is that John bought a computer, (but he did not pay).



- b. John-i computer-lul sa-ss-ki-nun hae-ss-ta.  
 -Nom computer-Acc buy-Past-ki-Con do-Past-M  
 Indeed, the fact is that John bought a computer, (but he did not pay).

To put it differently, spell out of verb *sa* (buy) or insertion of *ha* (do) in (54) and (55) is a kind of chain reaction which is triggered by the morphological property of the tense marker which is spelt out to support the mood morpheme.

In addition to the spell out of tense, there is another way to support the mood morpheme: merge *ha* (do) to M directly:



- b. \*John-i computer-lul sa-ss-ki nun ha-ta  
 -Nom computer-Acc buy-Past-ki Con do-M

As with TrP movement, *do* support option should be possible in principle. The result, however, is bad as the unacceptability of (56) shows. I claim that this is because the tense feature of the dummy verb *ha* (do) in (56) can not be checked off considering that there is no T projection

between the dummy verb and mood<sup>10</sup>).

(ii) Criticize himself<sub>i</sub>, John thinks Bill<sub>i</sub> would not.

(i) and (ii) show that anaphor in the fronted category has to be bound by the embedded subject, and this can be easily accounted for if we assume that the fronted category contains a subject in it. This is also the case in Korean.

The unacceptability of (56) then may imply that *do* support operation does take place in the syntax contrary to Bobaljik (1994) who argues that it is just a morphological process (merger) which does not do any syntactic job.

My proposal also makes an interesting prediction: if a language does not have a mood head which is stranded behind after a TP focus movement, there would be no need for a copy to be spelled out or for *do* to be inserted when a TP underwent a movement. This is indeed the case in Yoruba:

The example (TP extraction + Focus marker without a copy) will be included.

(57) [TP *dada a ji owo ojo*] ni  
           *Dada Infl steal money Ojo Foc*  
           What happened is that Dada stole Ojo's money.

Japanese TP focus construction seemingly counterexamplifies the prediction:

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10) I assume that M does not have a *tesne* feature which can enter into checking relation with the tense feature of the dummy verb.

- (58) [TP John-ga computer-o ka-tta-koto] wa ka-tta.  
 -Nom -Acc buy-Past-Tense Con buy-Past  
 John bought a computer (but he did not pay).

In (58), the copy of the moved TP is spelled out even though there is no overt mood marker stranded behind. I will assume that there is a null mood marker in (58) right after the tense marker and this is why the copy is spell out.<sup>11)</sup>

#### IV.2 TrP vs. TP Movement

In this section, I will provide evidence for my claim that a different category has undergone a focus movement in (59) and (60) on one hand and (61) and (62) on the other: namely TrP in the former and TP in the latter.

- (59) John-i [computer-lul sa-ki] nun sa-ss-ta.  
 -Nom computer-Acc buy-ki-Con buy-Past-M  
 Indeed, the fact is that John bought a computer, (but he did not pay).
- (60) John-i [computer-lul sa-ki] nun hae-ss-ta.  
 -Nom computer-Acc buy-ki-Con do-Past-M  
 Indeed, the fact is that John bought a computer, (but he did not pay).
- (61) John-i computer-lul sa-ss-ki-nun sa-ss-ta.  
 -Nom computer-Acc buy-Past-ki-Con buy-Past-M  
 Indeed, the fact is that John bought a computer, (but he did not pay).

---

11) Whitman (p.c) pointed out to me that Japanese sentence particles may be the equivalents of Mood markers in Korean.



- (62) John-i computer-lul sa-ss-ki-nun hae-ss-ta.  
 -Nom computer-Acc buy-Past-ki-Con do-Past-M  
 Indeed, the fact is that John bought a computer, (but he did not pay).

From now on, I will only refer to (59) and (61) since (60) and (62) illustrate basically the same point. First, the tense specification on the verb itself demonstrates a difference between (59) and (61). The fact that the verbs in (61) contains a tense marker indicates that T projection has moved. On the other hand, that the tense marker does not appear in (59) suggests that it is quite likely that it is a TrP which undergoes a movement in (59). (Even though there is another possibility that null T is still present in those sentences.)

The second and much stronger evidence is that the subject can be stranded when the tense is not specified on the first verb, while it cannot when the first verb contains a tense marker:

- (63) [computer-lul sa-ki] nun John-i sa-ss-ta.  
 computer-Acc buy-ki-Con -Nom buy-Past-M  
 Indeed, the fact is that John bought a computer, (but he did not pay).
- (64) \*computer-lul sa-ss-ki-nun John-i sa-ss-ta.  
 computer-Acc buy-Past-ki-Con -Nom buy-Past-M  
 Indeed, the fact is that John bought a computer, (but he did not pay).

It is obvious that the unacceptability of (64) results from the fact that there is no position where the subject *John-i* can sit in since the whole TP is extracted. If (63) is an instance of TP

movement, (63) also should be unacceptable as (64). However, (63) is perfect. This can be easily accounted for if it is a TrP which has moved in (63). In fact, (63) is derived when the TrP undergoes a movement to the position higher than TP.

Thirdly, (59) and (61) show a contrast in adverb placement. Sentential adverbs can appear between the extracted element and its copy in both cases:

(65) [computer-lul sa-ki] nun amato John-i sa-ss-ulkel.  
 computer-Acc buy-ki-Con probably -Nom buy-Past-M  
 Probably, John bought a computer, (but probably he did not pay).

(66) [John-i computer-lul sa-ss-ki-nun] amato sa-ss-ulkel.  
 -Nom computer-Acc buy-Past-ki-Con probably buy-Past-M  
 Probably, John bought a computer, (but probably he did not pay).

However, non-sentential adverbs appear between the extracted element and its copy only in the case where the first verb does not contain a tense morpheme:

(67) [computer-lul sa-ki] nun John-i cincca sa-ss-ulkel.  
 computer-Acc buy-ki-Con -Nom really buy-Past-M  
 Indeed, John really bought a computer, (but he did not pay).

(68) \*[John-i computer-lul sa-ss-ki-nun] cincca sa-ss-ulkel.  
 -Nom computer-Acc buy-Past-ki-Con really buy-Past-M  
 Indeed, John really bought a computer, (but he did not pay).

The contrast above also supports my claim that (59) is an instance of TrP focus movement and (61) is an instance of TP focus movement. The position of sentential adverbs is presumably

very high: higher than the position of the subject. Let us assume that sentential adverbs merge to  $M'$  in Korean. Sentential adverbs then can be left behind regardless of whether VP or TP undergoes a movement, because in both cases there is a place where sentential adverbs can stay:

(69) [VP] [MP sentential adverbs [TP Sub ]] VP movement

(70) [TP] [MP sentential adverbs [TP Sub ]] TP movement

This is why (65) and (66) are both good. The position of non-sentential adverbs, however, is lower than the sentential adverbs, i.e. lower than MP. Let us then assume that non-sentinel adverbs merge to  $T'$ :

(71) [VP] [MP [TP Sub NS adverb [T'] ]]] VP movement

(72) [TP] [MP ]]] TP movement

In the case of VP movement, still there is a position where non-sentential adverbs can sit in, i.e. TrP adjoined position. However, when TP is extracted, there is no position that the non-sentential adverbs can sit in (unless it is a part of the copy of the TP), hence non-sentential adverbs can not appear between the extracted TP and its copy. The unacceptability of (68) and the acceptability of (67) then strongly supports my proposal that it is a TrP which has moved in (59) and it is a TP in (61).

## V. Conclusion

In this paper it has been shown that once TrP (or TP) undergoes a focus movement leaving stranded morphemes behind, either one of the two actions has to be taken in

Korean: spell out of the copy or do support. The optional nature of Do Support implies that Do Support may not necessarily be the last resort since Do support option is available even when verb movement is not blocked in the Precidate Focus construction. On the other hand, Presence of duplicated verbs in this construction strongly argues for copy theory of movement.

In addition, my analysis of Predicate Focus Construction is shown to have important implication regarding the verbal morphology. Contrary to Chomsky (1993), the different verb forms found in TrP (V) and TP focus movement (V+Tense) suggests that the tense morpheme may not be selected with the verb at the beginning of the derivation but it is taken seperately from the verb, i.e. the tense morpheme is under T. To account for this in the feature checking theory of verb movement, I proposed that not the inflected verbs but verbs with the featrues are taken out from the lexicon and features of either verb or T can be spelled out, and that Korean belongs to the case where the tense morpheme of T is spelled out. In addition to the different verb forms in TrP and TP movement, the systematic difference among languages as to the (un)availability of do support option in TrP focus movement is derived from whose tense feature of the two (verb and T) is spelled out under this propsoal: if the tense feature of the verb is spelled out (instead of the tesne feature of T) in a language, spell out of the copy is not available in the TrP focus movement in that language. This conclusion argues against Koopman (1984)'s claim that spell out of copy is not possible when the lanague has a proverb.

I also have shown that Predicate Focus constrution in Korean presents important implications regarding the verb movement

in Korean: (i) verbs do move in Korean, (ii) v feature of neg is strong while that of T is weak, and (iii) tense morpheme is under T while AGR morpheme is with the verb (TF of T is spelled out while AGR feature of V is spelled out).

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