

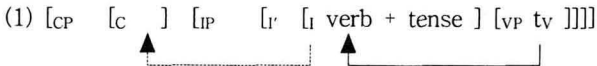
Negation and the Placement of Verb in Korean*

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The paper examines the much-studied, but still debatable phenomenon of verb placement in Korean clausal structure. I will bring forward negative response to the previous works made by J-Y. Yoon (1990), Y-J. Jung (1992) and Whitman (1990, 94), who maintain that verbs in Korean raise to higher Infl and Comp positions. I will then argue that neither main verbs nor auxiliary verbs raise in Korean, but that they stay in situ in their base-generated position. My claim is mainly based on scope phenomena in negative sentences. It is suggested that scope interpretations which follow from interaction between negation and a quantificational element receive a principled account in terms of their c-command relation, which in turn renders compelling evidence for verb position at overt syntax in the investigated language.

1. Introduction

Many current theories charge syntactic rules with the duty of bringing verbs and certain of their inflectional affixes together. Primary among these syntactic rules is verb raising (cf. Pollock (1989) and Chomsky (1991)) that moves verbs to inflectional heads. It is this rule that is responsible for inflecting verbs for tense: verbs are moved from their D-structure position to Infl (and, in some case, further to Comp), where they combine with tense morphology, yielding a structure like that in (1):



In fact, Korean linguists and others (cf. J-Y. Yoon (1990), K-Y. Choi

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(1991), Y-J. Jung (1992), Whitman (1990, 94)) defended the verb raising hypothesis to account for syntactic formation of verbal morphology in Korean.

This paper argues that the verb raising hypothesis cannot be maintained for Korean. I will show that verb raising to higher inflectional heads is attested to neither for main verbs nor for auxiliary verbs. Rather, main and auxiliary verbs stay in situ at overt syntax in Korean. I will defend the verb-in-situ hypothesis by arguing for the structural, c-command approach to scope phenomena in negative sentences.

The paper is constructed as follows. Section 2 sets out to examine verb placement in the main verb negation construction where a negative marker appears before main verbs. Section 3 turns to explore where auxiliary verbs are positioned in the expletive auxiliary verb *ha-* 'do' construction. Section 4 summarizes the discussion in the paper and provides crosslinguistic consideration.

2. Do Main Verbs Raise in Korean?

Based on works by Emonds (1978), Pollock (1989) and Chomsky (1991) have argued that in French, main verbs as well as auxiliary verbs raise to inflectional heads, whereas in English, inflectional heads lower to main verbs, whereas auxiliary verbs raise to inflectional heads.¹ This claim is based mainly on the following contrast in (2-4):

- (2) a. Jean embrasse souvent Marie.
 John kiss often Mary.
 b. Jean perdit completement la tete.
 John lost completely his mind.
- (3) a. John often kisses Mary.
 b. John completely lost his mind.
- (4) a. John has completely lost his mind.
 b. Books are often rewritten for children.

In (2) of French the main verb appears before the frequency or manner

¹Chomsky (1993) departs from this view, arguing that a verb amalgamates with inflectional features in the lexicon and then the inflected verb is checked with inflectional features in the syntactic representation at overt or covert syntax.

adverb. In (3) and (4) of English, on the other hand, the main verb appears after the frequency or manner adverb, whereas the auxiliary verb appears before the frequency or manner adverb.

Turning to negative sentences, the same pattern of contrast as in adverb placement holds between French and English as follows:

- (5) a. Jean (n')aime pas Marie.
 John loves not Mary.
 b. *Jean (n') pas aime Marie.
- (6) a. Jean n'a pas lu Franz Fanon.
 John has not read Franz Fanon.
 b. Marie n'est pas tombe'e malade.
 Mary has not fallen ill.

In (5) and (6) of French, the main verb as well as the auxiliary verb appears before the negative marker *pas*. In English, on the other hand, only the auxiliary verb appears before the negative marker. The main verb, however, appears uninflected after the negative marker *not*, while the inflected auxiliary verb appears before *not* as follows:

- (7) a. John does not like Mary.
 b. *John likes not Mary.
 c. *John not likes Mary.
- (8) a. John has not lost his mind.
 b. John is not working hard.

To account for the word order difference between English and French in main verb containing sentences, Pollock and Chomsky first assume that both in English and in French, an adverb and a negative marker each is in the same hierarchical positions, proposing the following clausal structure:

- (9) [_{IP} [_{NegP} *not* [_{VP} adverb [_{VP} ... V ...]]]]

Given the structure (9), to get the surface form there are two options of amalgamating verb with Infl; (i) verb may raise to Infl, or (ii) Infl may lower to verb. Pollock and Chomsky claim that French main and auxiliary verbs take the first option, whereas English main verbs take the second option. Unlike main verbs, however, auxiliary verbs in English take the verb

raising strategy.² Therefore main and auxiliary verbs in French and auxiliary verbs in English appear before the negative marker and frequency or manner adverbs. Main verbs in English, however, appear after such elements.

Turning to head-final Korean, putting aside the negative adverb *an(i)* for a moment, for the following reason linear word difference between verbs and adverbs cannot be detected as in French and English. Let me first assume, following Saito (class lecture, 1991 Fall), Fukui (1993) and Kayne (1993), that in head-final languages like Korean rightward adjunction is prohibited. Under this assumption it is then supposed that in Korean adverbs are only leftward adjoined to VP or higher categories as schematically represented in (10):

- (10) [CP [IP adverb [IP [VP adverb [VP ... V ...]] ess]] ta]

Note in (10) that unlike those in English and French, inflectional morphemes and verbs in Korean are on the right branch, while adverbs are on the leftward branches. Therefore, by examining the surface string of word order it is impossible to find out whether the verb appears in a higher or lower position than leftward adjoined adverbs. Let me now turn to the negative sentences of Korean in the following:

- (11) John-i achim -ul an(i)-mek-ess -ta.
 -Nom breakfast-Acc not -eat-Perf-Decl
 'John didn't have breakfast.'

(11) is an instance of main verb (MV) negation where the negative marker *ani* appears before the main verb. In order to take preverbal MV negation as supporting evidence for the verb raising hypothesis in Korean, it has to be proved that the negative marker is base-generated in the following underlying structure:

- (12) [IP [@P [VP V] *ani*] @P]]

If (12) is a correct underlying structure, to get the surface verbal morphology in (11) the main verb must raise across the negative marker to the higher Infl since at the surface the latter appears before the former.

² Obviously, we put aside Pollock's and Chomsky's *Do*-support analysis in negative sentences of English, since it is not relevant to the following discussion.

(12), however, cannot be the correct underlying clausal structure for an instance of MV negation in (11). The postulated phrase in (12), @P can be VP or NegP. When it is VP, *an(i)* is regarded as a rightward VP adjoined adverb. Rightward adjunction, however, is not warranted in Korean. The remaining possibility then is that @P is NegP. In this case, the negative marker *an(i)* in MV negation is considered to project NegP.

There is, however, convincing evidence showing that the negative marker *an(i)* in MV negation is not a head of NegP. Let me look at the following:

- (13) a. John-i achim -ul an(i)-mek-ci ani-ha-yess-ta.
 -Nom breakfast-Acc not-eat-Nm not-do-Perf-Decl
 'John didn't not have breakfast.'
- b. John-i achim -ul an(i)-mek-ki -nun ha-yess-ta.
 -Nom breakfast-Acc not -eat -Nm-Top do-Perf-Decl
 'John at least didn't have breakfast.'

In (13a-b), MV negation appears in the complement of the auxiliary verb *ha-* 'do',³ where the complement verb of *ha-*, i.e. the main verb is not taken to raise.⁴ Note that the analysis of *ani* as a head of NegP can be justified when it is proved that MV negation is formed by raising of the main verb

³ Unlike in Korean, in Japanese the negative marker cannot appear in the complement of the auxiliary verb *suru* 'do' as follows:

- (i) a. John-ga susi -o tabe-naku-wa na -katta/ *si-na -katta.
 -Nom sushi-Acc eat -Neg -Top Neg-Past do-Neg-Past
- b. John-ga ie -ni i -naku-wa na -katta/ *si-na -katta.
 -Nom home-at stay-Neg -Top Neg-Past/ do-Neg-Past

I conjecture that the contrast between Korean and Japanese follows from the distinct property of the negative markers in the two languages. The negative marker in the former language is an adverb, while the one in the latter language is an inflectional head. Let me suppose that *suru* 'do' (Japanese) and *ha* 'do' (Korean) support takes place when the complement of the expletive auxiliary verb is VP, but not otherwise. That is why *suru* support cannot take place in (ia-b) since the complement of *suru* will be NegP containing the inflectional negative marker. In Korean of (13), however, *ha*-support is legitimate since the complement of *ha-* is not NegP but VP. This contrast between Korean and Japanese provides further support to my claim in the text that the negative marker in Korean is not an inflectional head, but an adverb.

⁴ The same argument can be applied to the complement of an auxiliary verb in the following English examples:

- (i) Mary doesn't like movies.
 (ii) Bob hasn't arrived yet.

across the negative marker. However, the fact that MV negation is permitted in (13a-b), where the main verb does not raise, renders evidence against the hypothesis of *ani* as a head of NegP.

Dismissing *ani* as the head of NegP, I argue that the negative marker is an adverbial clitic, which is rightward adjoined like other adverbials in Korean, and that MV negation in (11) is formed by adjoining the rightward adjoined negative clitic to the main verb, as schematized below:

- (14) [CP [IP [VP [V' t_i [V' [V ani_i +V]]] -ess] -ta]
-

Note in (14) that the fact that MV negation is not formed by raising of the verb across the negative marker does not necessarily imply that in Korean, verb does not raise. This is because in (14) the main verb attached with the negative marker can still raise to the higher inflectional positions.

Before demonstrating whether main verbs in Korean raise or not, let me look at effects of verb raising in English. It has been observed that the subject position in English is outside the scope of the negative marker attached to the auxiliary verb in Infl position (Lasnik 1972, 75). Look at the following:

- (15) Someone didn't leave.
 (someone > not, *not > someone)

In (15), *someone* in the subject position takes only wide scope over *n't* in Infl position, which reflects the surface *c*-command relation between them.

If, however, the auxiliary verb containing *n't* is raised over the subject to the Comp position at overt syntax, a different situation arises as follows:

- (16) a. Didn't someone leave?
 b. Did someone not leave?

As Hornstein (1988) claims, the negator of (16a) takes wide scope over *someone*, so that the sentence is understood as a question asking whether everyone stayed, whereas the negator of (16b) takes narrow scope below *someone*, so that the sentence is interpreted as a question regarding whether anyone stayed.⁵

⁵Quantifiers like *some* and *several* are considered as a Positive Polarity Quantifier

Given this consideration, let me go back to the schematic structure of MV negation in (14). My prediction is that if the main verb attached with the negative marker in (14) is raised to the higher inflectional positions in Korean, the former takes scope over other elements within its c-commanding domain. Otherwise, the negative marker only takes scope over the main verb.

I show that the latter prediction is borne out, on the basis of scope facts in MV negation. Let me look at the following examples:

- (17) a. *motun haksayngtul-i ku chayk-ul an(i)-ilk -ess -ta.*
 all students -Nom the book -Acc not-read-Perf-Decl
 (i) 'It is all the students who didn't read the book.'
 (ii) #Not all the students read the book.'
- b. *John-i motun chayk-ul an(i)-ilk -ess -ta.*
 -Nom all book -Acc not -read-Perf-Decl
 (i) 'It is all the books which John didn't buy.'
 (ii) #John didn't read all the books.'

In MV negation QPs in subject or object position only take wide scope over the negative marker attached to the main verb. Furthermore, like QPs in subject or object position the frequency adverbial like *hangsang* 'always' in (18a), the purpose adverbial clause in (18b) and the reason adverbial clause in (18c) only take wide scope over the negative marker in MV negation:

- (18) a. *Tom-i hoyhap -ey [hangsang] an(i)-o -nta.*
 -Nom meeting-to always not -come-Decl
 (i) 'Tom always not comes to the meeting.'
 (ii) #Tom does not always come to the meeting.'
- b. *Tom-i [ca -ki -wihayse] hakkyo-ey an(i)-o -ass -ta.*
 -Nom sleep-Nm-to school -to not -come-Perf-Decl
 (i) 'It is to sleep that Tom didn't come to school.'
 (ii) #Tom didn't come to school to sleep.'
- c. *John-un manwura-lul [salangha-ki -ttaymwuey] an(i)-tayli-nta.*
 -Nom wife -Acc love -Nom-because not -hit -Decl

(PPQ) and thus cannot be under the scope of negation in declarative sentences (cf. Lasnik 1972, 75). The PPQs, however, can be in the scope of negation either in interrogatives or antecedent clauses of conditionals. See Hasegawa (1991) for details bearing on this issue.

- (i) 'Because he loves her John does not beat his wife.'
 (ii) #'John does not beat his wife because he loves her.'

In other words, the negative marker attached to the main verb normally does not take wide scope over the adverbials in (18).⁶ Scope facts in MV negation are interpreted as suggesting that the negative marker + main verb complex in this type of negation does not raise to the higher inflectional positions. If the negative marker + main verb complex raised to the higher inflectional positions, the negative marker would take wide scope over subject or object QPs, contrary to the fact.

To summarize, by investigating MV negation I have shown that the verb raising hypothesis cannot be maintained in Korean. Further existence of *Ha*-insertion in *Ha* negation as a counterpart of *Do*-insertion in English provides strong evidence that main verbs do not raise in this language. In the next section I examine whether the auxiliary verb *ha* raises or not.

3.1. Does the Auxiliary Verb *ha*- Raise?

In this section I investigate whether the auxiliary verb *ha*- in the *Ha* negation construction raises or not. I argue that the *Ha* negation construction has the following schematic structure:

$$(19) [CP \quad [IP \quad [VP \quad t_i \quad [VP \quad V \quad]] \quad ani;+ha+ess] \quad ta]$$

The negative clitic *ani*, which is base-generated in a rightward VP-adjoined position,⁷ undergoes adjunction to the inserted higher expletive verb *ha*- 'do.' Note that the expletive verb *ha*-, not the main verb, appears with inflectional markers. One question which I am going to investigate is how

⁶I do not deny that QPs or adverbials in (17) and (18) can have narrow scope below the negation when they are contrastively focussed. Since the focus effects in negative sentences do not reflect c-command relations, I concentrate on normal or focus-free situations for negative sentences. See Kuno (1982) and H-S. Han (1987) for focus effects in negation sentences of Japanese and Korean. See also Jackendoff (1972) and Lasnik (1972, 75) for so-called "attraction to or association with focus" effects in negative sentences of English.

⁷This means that, in my analysis, the negative clitic *ani* is generated adjoining freely to V' or VP. In the former case MV negation results as in (14). In the latter case *Ha* negation results as in (19).

the auxiliary verb *ha-* is amalgamated with inflectional markers: that is, whether the auxiliary verb raises to and amalgamates with the inflectional Comp morpheme.

To demonstrate whether the auxiliary verb *ha-* raises or not, in the following I crucially rely on scope interaction between QPs and the negative marker *ani* attached to *ha-* in *Ha* negation. That is, it is predicted that if *ha-* is raised, the negative marker attached to it takes scope from the position where *ha-* is raised. On the other hand, if it stays in situ, the negative marker takes scope from the position where it stays.

3.2. Scope Interpretation in *Ha* Negation and the Position of the Auxiliary Verb

3.2.1. Basic facts

In *Ha* negation of Korean, the negative marker *ani* attached to the auxiliary verb *ha-* normally takes wide scope over a subject or object QP, though I do not deny that putting a pause (#) after a subject or object QP makes it possible for the QP to get wide scope over the negative marker (S-C. Song (1977)).⁸ Let me look at the following:

- (20) a. *motun haksayngtul-i (#) ku chayk-ul ilk -ci ani-ha-yess-ta.*
 all students -Nom the book -Acc read-Nm not-do-Perf-Decl
 (i) 'Not all the students read the book.'
 (ii) 'It is all the students who didn't read the book.'
- b. *John-i motun chayk-ul (#) ilk -ci ani-ha-yess-ta.*
 -Nom all book -Acc read-Nm not-do-Perf-Decl
 (i) 'John didn't read all the books.'
 (ii) 'All the books, John didn't read.'
- (21) a. *Jake-man (#) Tom-ul tayli-ci ani-ha-yess-ta.*
 -only -Acc hit -Nm not-do-Perf-Decl
 (i) 'Not only Jake beat Tom.'
 (ii) 'Only Jake didn't hit Tom.'

⁸ It is not entirely clear that there must be a pause after a QP to get wide scope interpretation of a QP over the negative marker. It is, however, definitely easier to understand a QP as outside the scope of negation in *Ha* negation when it is followed by a pause.

- b. Jake-nun Tom-man (#) tayli-ci ani-ha-yess-ta.
 -Top -only hit -Nm not-do-Perf-Decl
 (i) 'Jake didn't beat only Tom.'
 (ii) 'Only Tom Jake didn't hit.'

In (20-21), the negative marker *ani* attached to the auxiliary verb takes wide scope over the subject or object QP in a fast speech context without pause. The same situation obtains in (21a-b), where the subject or object NP is attached with the quantificational particle *-man* 'only.' The scope relation between the negative marker and QPs in subject or object position in *Ha* negation is taken as implying that the former is normally in a higher position c-commanding the latter. This is in contrast to MV negation, where a subject or object QP is outside the scope of negation.

The wide scope interpretation of the negative marker attached to the auxiliary verb obtains as well in constructions containing the frequency adverbial in (22a), the purpose clause in (22b) and the reason clause in (22c):

- (22) a. Tom-i hoyhap -ey [hangsang] (#) o -ci anh -nunta.
 -Nom meeting-to always come-Nm don't-Decl
 (i) 'Not always does Tom come to the meeting.'
 (ii) 'Tom always not come to the meeting.'
- b. Tom-i [ca -ki -wihayse] (#) hakkyo-ey o -ci
 -Nom sleep-Nm-to school -to come-Nm
 anh -ass -ta.
 don't-Perf-Decl
 (i) 'It is not to sleep that Tom came to school.' or
 (ii) 'It is to sleep that Tom didn't come to school.'
- c. John-un manwura-lul [salangha-ki -ttaymwuey] (#) tayli-ci
 -Nom wife -Acc love -Nom-because hit -Nm
 anh -nunta.
 don't-Decl
 (i) 'It is not because he loves her that John beats his wife.'
 (ii) 'It is because he loves her that John does not beat his wife.'

In (22), the negative marker *ani* attached to the auxiliary verb takes wide scope over the frequency adverbial, the purpose adverbial clause and the reason adverbial in a normal pause-free context. Furthermore, like subject or object QPs, the adverbials in (22) can take wide scope over the negative

marker when they are followed by a pause.


I have so far considered examples which keep canonical word order. I turn now to the following case which involves scrambling of the object NP over the subject NP:

- (23) motun chayk-lul; (#) John-i t_i ilk -ci ani-ha-yess-ta.
 all book -Acc -Nom read-Nm not-do-Perf-Decl
 (i) 'John didn't read all the books.'
 (ii) 'All the books, John didn't read.'

I have shown that when a QP in object position appears in situ, it normally takes narrow scope below negation. This is also the case when the object QP is scrambled before the subject NP; the scrambled object QP normally takes narrow scope below negation. However, I do not deny that the scrambled object QP can take wide scope over the negative marker when it is followed by a pause.

3.2.1.1. Analysis and Evaluation

Given the fact that in a normal situation the negative marker *ani* attached to the auxiliary verb *ha-* takes wide scope over subject or object QPs, adverbials and scrambled objects, I maintain that the following is the correct schematic structure at overt syntax for *Ha* negation:

- (24) [CP [IP [VP t_i [VP **\$P** [VP subject NP object NP V]]] ani_i+ha+ess] ta]

 (\$P = scrambled phrase, frequency adverbial, purpose adverbial, or reason adverbial.)

I crucially assume in (24), following Kuroda (1988) and E-J. Lee (1992) but contrary to S-H. Ahn (1990) and J-S. Lee (1992), that a subject NP can stay in VP-Spec position at overt syntax in Korean. This assumption is evidenced in turn by the fact that a QP in subject position normally takes narrow scope below negation. Furthermore, frequency, purpose and reason adverbials as well as scrambled object NPs normally appear in VP-adjoined position, where they are c-commanded by the negative marker attached to the auxiliary verb.

Before proceeding, some discussion of what is called pause effects on scope interpretation in *Ha* negation is in order. I claimed, following S-C. Song (1977), that when a pause is put after a QP in subject or object

position in *Ha* negation, the QP takes wide scope over the negative marker. The situation here in Korean is reminiscent of the similar one involving object QPs in the negative sentences of English. Let me look at the following:

- (25) I couldn't solve many of the problems.
 (i) I was able to solve few of the problems.
 (ii) There are many problems that I couldn't solve.

As Lasnik (1972, 75) notes, depending on intonation, the quantifier in object position in (25) can be either inside or outside the scope of *n't*. When *many* is within the same main intonational phrase as *n't*, it will usually be negated, resulting in the interpretation (25i). When, on the other hand, (25) is given an abnormal intonation in which *I couldn't solve* has the contour of an independent sentence, *many* will be non-negated, giving the interpretation (25ii). Lasnik further claims that, in its effect, the abnormal intonation contour is similar to the syntactic rule of topicalization (Lasnik 1975: 291). In other words, when the sentence (25) has the unusual intonation contour, the object NP behaves as if it is 'topicalized.' Lasnik's claim is a precursor to Huang's (1982: 143) extraposition analysis of the phenomenon under discussion. Noting that English enjoys rightward extraposition, Huang suggests that even though the object QP in (25) in a normal situation is inside the scope of the negative marker, the object QP is extraposed to the position outside the c-commanding domain of the negative marker when the object QP takes wide scope over the negative marker. This implies that at overt syntax, hierarchical relations, i.e. c-commanding relations determine scope relations between the negative marker and QPs in negative sentences.

Huang argues that strong evidence supporting the hierarchical account for the scope facts in negative sentences of English comes from the following contrast:

- (26) a. Always John didn't show up.
 b. John always didn't show up.
 c. John didn't always show up.
 d. John didn't show up always.

As Lasnik (1972, 75) notes, among the four sentences in (26) only (26d) may have two readings. (26a-c) each is unambiguous. In (26a-b), *always* must be interpreted as having wide scope w.r.t. negation, and in (26c)

always must be interpreted as having narrow scope. However, in (26d), *always* is interpreted as having wide or narrow scope w.r.t. negation.

The c-command hierarchical account predicts that in (26a-b), *always* is outside the c-commanding domain of and takes wide scope over negation, whereas in (26c-d), *always* is inside the c-commanding domain of and takes narrow scope below negation. The case which is insufficiently accounted for by this analysis is (26d), which is ambiguous. Huang argues that, unlike the leftward adjoined *always* in (26a-c), the sentence-final rightward adjoined adverb in (26d) can be considered to be extraposed outside the c-commanding domain of negation in (27b) as well as inside its c-commanding domain in (27a):

(27) a. John [didn't [[show up] always]].

b. John [[didn't [show up]] always].

The ambiguity of (26d) then is attributed to the fact that it allows a dual structural analysis in (27a-b).

Turning to Korean, in the same spirit with Lasnik and Huang I argue that pause effects in *Ha* negation in Korean, which enable a QP with a pause after it to take wide scope over the negative marker, are in fact an indication that the former appears outside the c-command domain of the latter. In other words, wide scope interpretation of a QP over the negative marker is taken as suggesting that the former is scrambled to a position outside the c-commanding domain of the latter. To be more concrete, scope facts in *Ha* negation are interpreted as indicating that the following overt syntax of an instance of *Ha* negation is possible in addition to (24):

(28) [_{CP} [_{IP} subject NP_j] [_{IP} object NP_i] [_{VP} t_k [_{VP} t_j t_i V ...]]
ani_k+ha+ess]] ta]

Considering that the subject QP can take wide scope over negation, I argue that the subject QNP scrambles to IP, Spec position. Furthermore, when an object QP takes wide scope over negation, it is also scrambled and appears outside the c-commanding domain of the negative marker, say, in the higher IP adjoined position. In addition, frequency, reason and purpose adverbials can be scrambled to higher IP-adjoined positions when they take wide scope over the negative marker attached to the auxiliary verb *ha-*.

I have claimed that when a QP takes wide scope over negation, the former is outside the c-commanding domain of the latter. This claim is

supported, first, by referentiality of the QP outside of negation. As Lasnik (1972, 75) argues, when the quantifier takes wide scope over negation, it behaves like a referential expression.

- (29) a. Many people saw the movie.
 b. Not many people saw the movie.

One striking difference between (29a) and (29b) is that the quantifier in (29a) can be used to make specific reference while the one in (29b) which is inside the domain of negation cannot be.

Similarly, definite pronominalization produces odd sentences when the antecedent is a negated quantifier phrase.

- (30) a. Many people saw the movie. They enjoyed it.
 b. Not many people saw the movie. *They enjoyed it.

Thus, the generalization may run as follows: a QP outside the scope of negation is referential, but a QP inside its scope cannot be referential.

The same situation as in English holds in Korean as well. Let me look at the following:

- (31) a. motun aitul -i ku yenghwa-lul po-ci anh -ass -ta.
 all children-Nom the movie -Acc see-Nm don't-Perf-Decl
 'All the boys didn't see the movie.'
 b. kutul-un chayk-ul ilk -ess -ta.
 they -Top book -Acc read-Perf-Decl
 'They read books.'

When the QP in the subject position of (31a) is interpreted as taking narrow scope below negation, (31b) with the definite pronoun cannot follow (31a). When, however, the QP in the subject position of (31a) takes wide scope over negation, (31b) can do so. This contrast indicates that in the latter case, the QP in the subject position of (31a) is outside the c-command domain of the negative marker.

Second, more concrete examples indicating that if a QP is outside the c-commanding domain of the negative marker at overt syntax, the former only takes wide scope over the latter comes from cases involving 'long distance scrambling.' Let me look at the following:

- (32) a. *sensayngnim-un* [*Mary-ka motun chayk-ul ilk -ci*
 -Top -Nom all book -Acc read-Nom
ani-ha-yess-ta -ko] *sayngkakha-nta.*
 not-do-Perf-Decl-Comp think -Decl
 (i) 'Her teacher thinks that Mary didn't read all the books.'
 (ii) 'Her teacher thinks that all the books, Mary didn't read.'
- b. *motun chayk-ul_i sensayngnim-un* [*Mary-ka t_i ilk-ci*
 ani-ha-yess-tako] *sayngkakha-nta.*
 (i) #'Her teacher thinks that Mary didn't read all the books.'
 (ii) 'Her teacher thinks that all the books, Mary didn't read.'

In (32a), when the embedded object QP appears in situ, it takes narrow or wide scope w.r.t. the negative marker in the same clause. When, however, it is scrambled in a long distance displacement before the matrix subject, the QP only takes wide scope over negation in the embedded clause, and the wide scope reading of negation disappears. This is because when the object NP undergoes 'long distance scrambling,' it is obviously outside the c-commanding domain of the negative marker in the embedded clause. This provides compelling evidence for my c-command account for scope relation between negation and a QP.

So-called 'super raising' constructions exhibit same patterns of behavior. Let me look at the following:

- (33) a. *wiwenhoy -nun* [*motun haksayng-tul-i kongpwu-lul*
 the committee-Top all student -Pl -Nom study -Acc
yelsimhi ha-ci ani-ha-ntako] *pyengka-ha-yess-ta.*
 hard do-Nm Neg-do-Decl judge -do-Perf-Decl
 (i) 'It was judged that not all the students were working hard.'
 (ii) 'It was judged that all the students were not working hard.'
- b. *motun haksayng-tul-i_i wwenhoy-eyuyhay* [*t_i kongpwu-lul yelsimhi*
 ha-ci anh-nuntako] *pyengka-toy-ess-ta.*
 (i) 'It was judged that not all the students were working hard.'
 (ii) #'It was judged that all the students were not working hard.'

In (33a), the embedded subject QP takes scope over or below the negative marker in the embedded clause. When, however, it appears before the matrix constituent, it only takes wide scope over the negative marker in the embedded clause. This is again interpreted as indicating that a QP outside

the c-commanding domain of the negative marker only takes wide scope over the latter.

Logically, one question arises: why can't a QP outside the domain of negation be reconstructed to the trace position at LF to get narrow scope below the latter? The fact that the scrambled phrase which is moved outside the c-commanding domain of negation cannot take narrow scope below negation can be compared with the parallel fact that a *wh*-phrase which is moved out of an island does not show 'scopal reconstruction effects' (cf. Longobardi (1987), Cinque (1990), Murasugi and Saito (1992)). Let me look at the following:

- (34) a. how many books_i does John think that everyone bought t_i?
 b. ??how many books_i does John wonder whether everyone bought t_i?
- (35) a. how many patients_i do you think that every one of the doctors can visit t_i in one hour?
 b. ?how many patients_i don't you think that every one of the doctors can visit t_i in one hour?

As Longobardi (ibid.) observes, (34a) and (35a) exhibit scope ambiguity between the fronted *wh*-phrase *how many books* and the embedded subject QP *everyone*. On the other hand, (34b) and (35b) are not ambiguous; the fronted *wh*-phrase only takes wide scope over the embedded subject QP. To account for the contrast between (34a) and (34b) as well as between (35a) and (35b) in the availability of the narrow scope of the *wh*-moved *wh*-phrase w.r.t. the embedded subject QP, Longobardi (1987) and Cinque (1990) basically argue that scope reconstruction can take place only along links of antecedent government (see Murasugi and Saito (1992) for a more recent alternative analysis). In (34a) and (35a), the quantificational part of the *wh*-moved *wh*-phrase can be moved back to the position where it takes scope, say, to the embedded VP-adjoined position, accounting for its narrow scope interpretation. In (34b) and (35b), however, because of the intervening A'-specifier in the embedded Spec, CP or the intervening negative marker, the *wh*-phrase cannot be moved back to the embedded VP-adjoined position. This accounts for the absence of the narrow scope interpretation of the *wh*-phrase.

Going back to the issue of unavailability of scope reconstruction in negative sentences in Korean, I argue, with Longobardi (1987), that the intervening negative marker blocks the scrambled QP from being reconstructed to the

position within the c-commanding domain of negation. This accounts for the absence of the narrow scope interpretation of the scrambled object NP below the negative marker.⁹

The important consequence that draws from my hierarchical c-command account for scope phenomena in negative sentences is that in Korean, when a QP is followed by another QP and the latter takes wide scope over negation, the former necessarily takes wide scope over negation, as reported by H-S. Han (1987). Let me look at the following:

- (36) manhun haksayng-tul-i motun chayk-ul ilk -ci
 many students -Nom all books-Acc read-NM
 ani-ha-yess-ta.
 not-do-Perf-Decl
 'Many students didn't read all the books.'

⁹ Like A'-moved QPs, QPs which have undergone A-movement across negation do not show scopal reconstruction effects. Note first that (ia) is ambiguous between generic and existential (cf. Diesing 1990):

- (i) a. Many firemen were available.
 b. Many firemen weren't available.

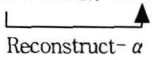
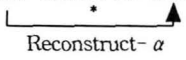
(ia) can be interpreted as reporting that given any typical fireman, that fireman is available, or that there are firemen available. However, in (ib) with negation, the subject cannot receive the existential reading with the subject QP within the scope of negation.

The same sort of contrast obtains in raising constructions as follows:

- (ii) a. Many unicorns seem to be in the garden.
 b. Many unicorns do not seem to be in the garden.

(iia) is ambiguous. However, (iib) with negation becomes unambiguous.

To account for the contrast between (ia) and (ib) in availability of the existential reading, I first assume that a quantificational element in subject position is optionally lowered down or reconstructed to a VP-adjoined position (cf. May 1985) as represented in the following:

- (iii) a. [_{IP} firemen were [_{VP} many [_{VP} t_i available].

 Reconstruct- α
 b. [_{IP} firemen weren't [_{VP} *many [_{VP} t_i available]].

 Reconstruct- α

I argue that, in contrast to (iia), reconstruction or lowering cannot be completed in (iib) because of the intervening negative marker. This is responsible for the absence of the existential reading in (ib) and (iib).

In (36), when the object NP takes wide scope over negation, the subject QP necessarily does so, too; (36) means that many students read none of the books.

Conversely, it is predicted that when a QP is followed by another QP and the former takes narrow scope below negation, the latter necessarily takes narrow scope below negation. This prediction is also correct. That is, in (36), when the subject QP takes narrow scope below negation, the object QP does so, too; (36) means that it is not the case that many students read all the books.

I have so far accounted for scope facts in *Ha* negation by assuming that the auxiliary verb *ha-* does not raise. Before directly turning to evaluate the auxiliary verb raising hypothesis in *Ha* negation, one word about the role of sentence-type denoting morphemes in Korean is in order. Let me look at the following:

- (37) pro/PRO wuywu-/u/ masi -ess -ta. /-ni? /-la. /-ca.
 milk -Acc drink-Perf-Decl/-Inter/-Imp /-Propos
 'Someone drank milk./Did you drink milk?/ Drink milk./ Let's
 drink milk.'

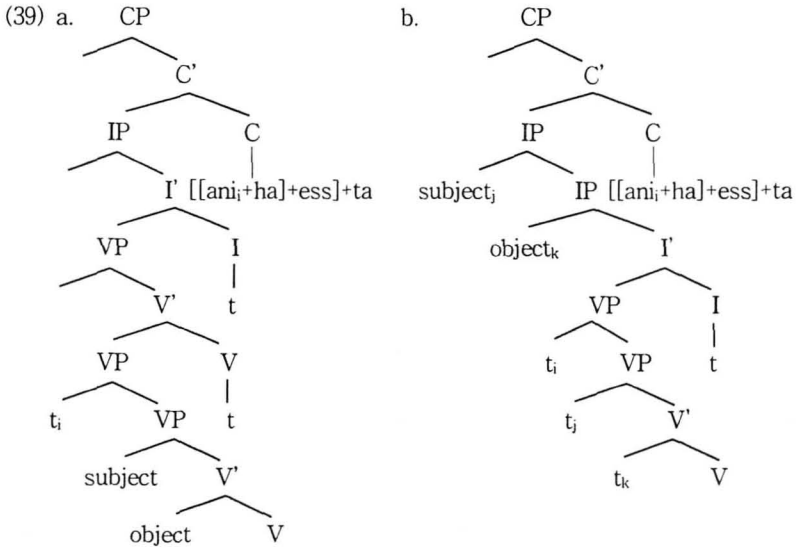
In (37), the verbal morphology in Korean ends with a morpheme like the declarative mood marker *-ta*, the interrogative mood (or question) marker *-ni*, the imperative mood marker *-la*, and the propositive mood marker *-ca*. These sentence type denoting enders are in complementary distribution with each other and must appear even in a matrix or root clause. Let me assume, following H-S. Choe (1988), that these morphemes have an independent projection (CP). It is then supposed that Korean has the following clausal structure of *Ha* negation:

- (38)
-
- ```

graph TD
 CP --> C_prime[C']
 CP --> C[C]
 C_prime --> IP[IP]
 C_prime --> C
 C --- C_label["-ta/(-ni/-la/-ca)"]
 IP --> I_prime[I']
 IP --> I[I]
 I --- I_label["ess"]
 I_prime --> VP1[VP]
 I_prime --> V_prime[V']
 VP1 --> ti["ti"]
 VP1 --> V_prime
 V_prime --> V[V]
 V --- V_label["[ani+[ha-]]"]
 V --> NP[NP]
 V --> V_main["V(main verb)"]

```

Given the structure (38), suppose that the auxiliary verb *ha-* raises to the highest functional mood marker rather than staying in its base-generated position:



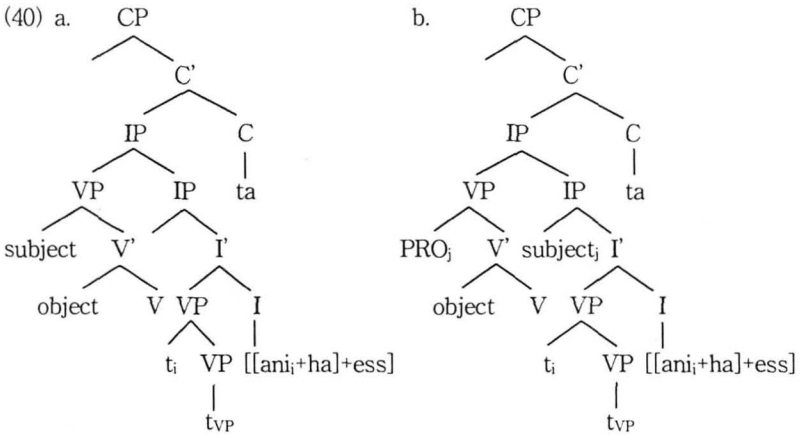
Note in (39) that the auxiliary verb raising hypothesis makes an incorrect prediction that subject QPs as well as object QPs always take narrow scope below the negative auxiliary verb *ani-ha*. Contrary to the prediction made by the verb raising hypothesis, however, it was seen that in *Ha* negation of Korean, subject or object QPs can take scope over or below negation, depending upon whether they are followed by a pause.

One possibility of keeping the auxiliary verb raising hypothesis is to assume that subject or object QPs are scrambled to CP adjoined positions rather than IP adjoined positions as in (39b) when they are followed by a pause. There is, however, no evidence that subject or object QPs are in CP-adjoined position when they take wide scope over negation. Furthermore I show in the next two sections that raising of the negative auxiliary verb to Comp position is unwarranted in Korean.

### 3.2.2. VP Fronting

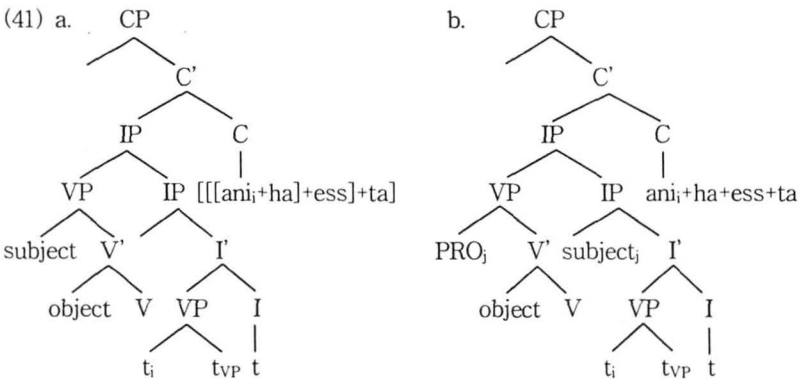
Evidence against the auxiliary verb raising hypothesis in *Ha* negation comes from scope facts in the VP fronting construction. Suppose first that the negative marker + auxiliary verb complex stays in situ. The following

schematic structure obtains when VP fronting applies:



(40a) is the output of VP fronting when the subject is in situ in VP-internal position. To get an instance of English-type genuine VP fronting, however, the structure in (40b) has to be posited where the subject NP appears outside VP, i.e. in Spec of IP and the Spec of VP contains PRO which is coreferential with the subject in Spec, IP (following Saito and Murasugi 1993). A prediction that I can make with the structure (40b) is that when a QP appears in the subject position, then it only takes wide scope over the negative marker, in contrast to ambiguous interpretation of the sentence which does not involve VP fronting.

Suppose, however, that the negative marker + auxiliary verb complex raises to the Comp position. The following schematic structures are then produced which correspond to (40a-b):



Since the subject in situ in VP-Spec position is contained within the fronted VP, (41a) is not an instance of genuine VP fronting. (41b) with the subject NP in Spec, IP is such an instance. Note that a prediction I can make with (41b) is that a QP in subject position only takes narrow scope below the negative auxiliary verb, in contrast to (40b).

Out of (40b) and (41b), the correct structure for VP fronting is the former.

Let me look at the following:

- (42) a. [<sub>VP</sub> ku chayk-ul ilk -ci-lul] motun haksayng-tul-i  
           the book -Acc read-Nm-Acc all student -Pl -Nom  
           ani-ha-ass -ta.  
           not-do-Perf-Decl  
           (i) #‘Not all the students read the book.’  
           (ii) ‘All the students read the book.’
- b. motun haksayng-tul-i ku chayk-ul ilk -ci -lul  
    all student -Pl -Nom the book -Acc read-Nm-Acc  
    ani-ha-yess-ta.  
    not-do-Perf-Decl  
    (i) ‘Not all the students read the book.’  
    (ii) ‘All the students read the book.’
- (43) a. [<sub>VP</sub> ku chayk-ul ilk -ci -lul] Jake-man ani-ha-ass -ta.  
           the book -Acc read-Nm-Acc -only not-do-Perf-Decl  
           (i) ‘It is only Jake who didn’t read the book.’  
           (ii) #‘It is not the case that only Jake read the book.’
- b. Jake-man ku chayk-ul ilk -ci ani-ha-ass -ta.  
    -only the book -Acc read-Nm not-do-Perf-Decl  
    (i) ‘It is not the case that only Jake read the book.’ or  
    (ii) ‘It is only Jake who didn’t read the book.’

In (42b) and (43b), which do not involving VP fronting, the QPs in subject position can take scope over or below the negator attached to the auxiliary verb. In (42a) and (43a), however, where VP fronting takes place, the QPs in subject position take only wide scope over the negative marker.<sup>10</sup> This

<sup>10</sup> It is also important to note that when an object QP is contained within the fronted VP, it only takes wide scope over the negative marker (However, an anonymous reviewer claims that the only possible reading is where the negation

fact can be accounted for by maintaining that (40b) rather than (41b) is the correct structure for the output of VP fronting. Remember that (40b) is the structure to come by when it is hypothesized that the negative marker + auxiliary verb complex *ani+ha-* does not raise.

### 3.2.3. When a QP is Followed by an NPI

Further evidence in favor of the verb-in-situ hypothesis of the auxiliary verb *ha-* comes from cases involving interaction between an NPI and a QP. Let me look at the following:

- (44) a. *motun haksayngtul-i amwu chayk-to ilk -ci an -h -ass -ta.*  
 all students -Nom any book -also read-Nm not-do-Perf-Decl  
 (i) 'No student read any books.'  
 (ii) #'It is not the case that all the students read any books.'
- b. *motun haksayngtul-i ku chayk-ul ilk -ci an -h -ass -ta.*  
 all students -Nom the book -also read-Nm not-do-Perf-Decl  
 (i) 'No student read the book.'  
 (ii) 'Not all the students read the book.'

As noted above, in (44b) the subject QP takes wide or narrow scope w.r.t. the negative adverbial attached to the auxiliary verb *ha-*. The example (44a), however, where the subject QP precedes the NPI, becomes unambiguous, with the subject QP only taking wide scope over the negative marker, as reported by J-H. Suh (1990) and K-W. Sohn (1994).

The same pattern of scope interpretation obtains in the dative construction or in the construction involving scrambling. Let me first look at the dative construction:

- (45) a. *John-nun motun chinkwu-tul?-eykey amwu chayk-to*  
 -Top all friends -to any book -also

---

takes wide scope over the object QP):

- (i) [<sub>VP</sub> *motun kyokwase-lul sa -ci -lul*] *John-i* [<sub>VP</sub> *e*] *ani-ha-ass -ta*  
 all textbook-Acc buy-Nm-Acc -Nom not-do-Perf-Decl  
 #'John didn't buy all the textbooks.'  
 'All the textbooks John didn't buy.'

This fact is also predicted by both structures in (40), which obtains when it is supposed that the auxiliary verb *ha-* does not raise. In (40), the object NP within the fronted VP is always outside the c-commanding domain of the negative marker.

- pilye-cwu-ci an -ha-ass -ta.  
 lend -Nm not-do-Perf-Decl  
 (i) 'John didn't lend any books to any friends.'  
 (ii) #'It is not that John lent any books to all the friends of his.'
- b. John-nun motun chinkwu-tul?-eykey ku chayk-ul pilye-cwu-ci  
 -Top all friends -to the book -Acc lend -Nm  
 ani-ha-yess-ta.  
 not-do-Perf-Decl  
 (i) 'John didn't lend the book to all the friends of his.'  
 (ii) 'To all the friends of his, John didn't lend the book.'

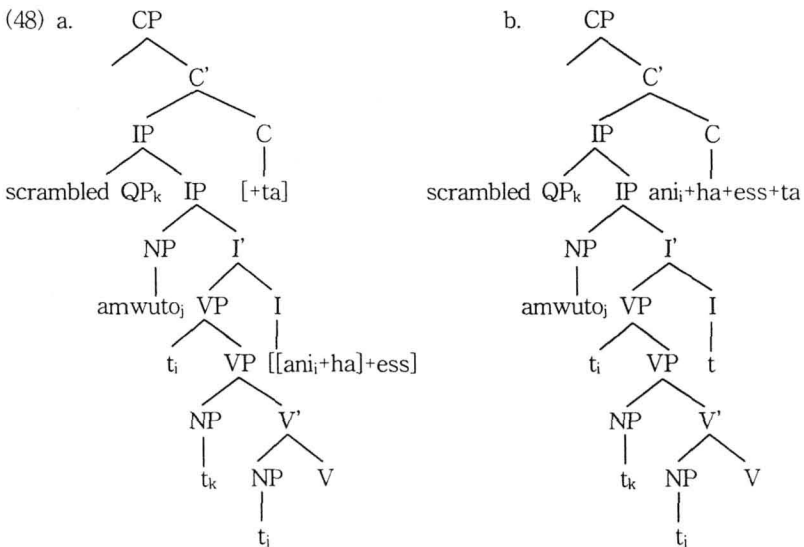
In (45b), the dative QP takes scope over or below the negative marker. In (45a), however, where the direct object position is occupied by the NPI instead of a non-NPI NP in (45b), the narrow scope reading of the dative QP w.r.t. negation disappears, while only its wide scope reading over negation obtains.

Let me now turn to the following examples where scrambling has applied.

- (46) a. motun swukcey -lul<sub>i</sub> amwu-to nay -ci t<sub>i</sub> ani-ha-yess -ta.  
 all homeworks-Acc any -also submit-Nm not-do-Perf-Decl  
 (i) #'It is not the case that anyone submitted all the homeworks.'  
 (ii) 'All the homeworks, nobody submitted.'
- b. motun swukcey -lul<sub>i</sub> John-i nay -ci t<sub>i</sub> ani-ha-yess -ta.  
 all homeworks-Acc John-Nom submit-Nm not-do-Perf-Decl  
 (i) 'John didn't submitted all the homeworks.'  
 (ii) 'All the homeworks, John didn't submitted.'
- (47) a. John-nun motun chayk-ul<sub>i</sub> amwu-eykey-to t<sub>i</sub> pilye-cwu-ci  
 -Top all book -Acc any -Dat -also lend -Nm  
 ani-ha-yess-ta.  
 not-do-Perf-Decl  
 (i) #'It is not case that John lent all the books to anyone.'  
 (ii) 'John didn't lend any books to anyone.'
- b. John-nun motun chayk-ul<sub>i</sub> Mary-eykey t<sub>i</sub> pilye-cwu-ci  
 -Top all book -Acc -to lend -Nm  
 ani-ha-yess-ta.  
 not-do-Perf-Decl  
 (i) 'John didn't lend all the books to Mary.'  
 (ii) 'All the John didn't lend to Mary.'

In (46b) and (47b), the object QP which has scrambled over the subject NP or the dative object takes scope over or below the negative marker. As in the canonical word ordered sentences, however, when the scrambled object QP is followed (not necessarily immediately) by the NPI in subject or dative object position as (46a) and (47a), it takes only wide scope over the negative marker, with the narrow scope interpretation disappearing.

The fact that a QP preceding an NPI can only take wide scope over negation can be accounted for in the following way. Let me assume, following K-W. Sohn (1994), that an NPI in Korean has to move at overt syntax within the checking domain of negation. More specifically, suppose that an NPI moves to the Spec of IP, the head of which contains the negative marker + expletive verb. Elements which appear before an NPI are scrambled and adjoined to IP. Therefore, the following schematic structure holds:



In (48a) the negative marker + auxiliary verb complex *ani-ha-* stays in situ, whereas in (48b) it raises to the Comp position. Note that the fact that a QP preceding an NPI always takes wide scope over negation can be accounted for by assuming the structure (48a) rather than (48b). With the structure (48b), to account for the wide scope interpretation of a QP w.r.t. negation it must be said that a QP preceding an NPI is scrambled to Spec of CP or CP-adjoined position. There is, however, no evidence that this is



the case. In short, I have demonstrated that the wide scope interpretation of a QP preceding an NPI over negation can be predicted under the hypothesis that the auxiliary verb does not raise in Korean.

#### 4. Summary and Further Crosslinguistic Consideration

To summarize, it has been shown that in Korean, a verb does not raise. This is so regardless of whether it is a main verb or the auxiliary verb *ha-*. Crosslinguistic consideration renders further support to the verb-in-situ hypothesis in Korean.

Various recent studies of German and Romance languages (Platzack and Holmberg (1989), Roberts (1992), and Vikner (1990), among others) have suggested that there may be a correlation between the nature of the verbal agreement paradigm and the presence of V-to-I movement. Roberts makes the following generalization in (49):

(49) The Plural Paradigm Generalization

V-to-I movement is triggered by the existence of a complete set of person distinctions in the plural.

One property of a language in which verb does not raise is then that it does not show a complete set of person distinctions in the plural. Korean does not show any person distinction in verbal paradigms. If Robert's generalization is correct, the fact that verb does not raise in Korean is attributed to lack of agreement in verbal paradigms in this language.

In this regard, Korean is assimilated to Swedish. As Rohrbacher (1992) notes, as in English, in Swedish main verbs must follow negation in contexts where Verb Second caused by V to C is excluded. This is illustrated in (50) for embedded clauses that are not the complements of bridge verbs:

- (50) a. I regret that John never mentions his mother. (English)  
 b. Jag beklager att jag inte traffade hanne. (Swedish)  
 I regret that I not met her

In contrast to English, however, in Swedish modals, *have* and *be* also have to follow negation.

- (51) a. I regret that you could not come to my party. (English)

b. Vilken fest sa hon att vi inte skulle kopa roliga  
 which party said she that we not should buy funny  
 hattar till. (Swedish)  
 hat for

- (52) a. I regret that you have not read "Oblomov." (English)  
 b. Jag beklager att Johan inte har köpt boken. (Swedish)  
 I regret that John not has bought the book

These examples show that Swedish modals, *have* and *be* behave like English main verbs and surface in situ inside VP. Rohrbacher (1992) notes that verbal paradigms in Swedish do not show any overt agreement.

## References

- Ahn, S-H. (1990) *Korean Quantification and Universal Grammar*, Doctoral Dissertation, University of Connecticut.
- Choe, H-S. (1988) *Restructuring Parameters and Complex Predicates: A Transformational Approach*, Doctoral Dissertation, MIT.
- Choi, K-Y. (1991) *A Theory of Syntactic X<sup>0</sup>-subcategorization*, University of Washington.
- Chomsky, N. (1991) 'Some Notes on Economy of Derivation and Representation,' in Robert Freiden, ed., *Principle and Parameters in Comparative Grammar*, The MIT Press, Cambridge, Mass.
- \_\_\_\_\_ (1993) 'A Minimalist Program for Linguistic Theory,' in K. Hale and S. Keyser, eds., *The View from Building 20*, The MIT Press, Cambridge, Mass.
- Cinque, G. (1990) *Types of A'-dependency*, The MIT Press, Cambridge, Mass.
- Diesing, M. (1992) *Indefinites*, The MIT Press, Cambridge, Mass.
- Emonds, J. (1978) 'The Verbal Complex V-V in French,' *Linguistic Inquiry* 9.1, 151~175.
- Fukui, N. (1993) 'Parameters and Optionality,' *Linguistic Inquiry* 24.3, 399~420.
- Han, H-S. (1987) *The Configurational Structure of the Korean Language*, Doctoral Dissertation, University of Texas at Austin.
- Hasegawa, N. (1991) 'Affirmative Polarity Items and Negation in Japanese,' in C. Georgopoulos and R. Ishihara, eds., *Interdisciplinary Approaches*

- to *Language: Essay in Honor of S.-Y. Kuroda*, Foris, Dordrecht.
- \_\_\_\_\_ (1988) 'Restructuring and Interpretation in a T-model,' *Linguistic Review* 5.
- Huang, J. (1982) *Logical Relations in Chinese and the Theory of Grammar*, Doctoral Dissertation, MIT.
- Jackendoff, R. (1972) *Semantic Interpretation in Generative Grammar*, The MIT Press, Cambridge, Mass.
- Jung, Y.-J. (1992) *A Restrictive Theory of Functional Categories and Their Parametric Variation*, Doctoral Dissertation, University of Washington.
- Kayne, R. (1993) 'The Antisymmetric of Syntax,' Ms., CUNY.
- Kuno, S. (1982) 'The Focus of the Question and the Focus of the Answer,' *CLS* 18, 134~157.
- Kuroda, S.-Y. (1988) 'Whether We Agree or Not: A Comparative Syntax of English and Japanese,' In W. Poser, *Papers from the Second International Workshop on Japanese Syntax*, CSLI, Stanford, California.
- Lasnik, H. (1972) *Analysis of Negation in English*, Doctoral Dissertation, MIT.
- \_\_\_\_\_ (1975) 'On the Semantics of Negation,' in D. Hockney, W. Haper, and B. Freed, eds., *Contemporary Research in Philosophical Logic and Linguistic Semantics*, Reidel, Dordrecht.
- Lee, E.-J. (1992) *On the Extended Projection Principle*, Doctoral Dissertation, University of Connecticut.
- Lee, J.-S. (1992) *Case Alternation in Korean*, Doctoral Dissertation, University of Connecticut.
- Longobardi, G. (1987) 'Extraction from NP and the Proper Notion of Head Government,' Ms., Scuola Normale Superiore, Pisa, [reprinted in A. Giorgi and G. Longobardi (1992): *The Syntax of Noun Phrase*, Cambridge University Press, Cambridge, Mass.]
- May, R. (1985) *Logical Form*. Cambridge, The MIT Press, Cambridge, Mass.
- Murasugi, K. and M. Saito (1992) 'Quasi-Adjuncts as Sentential Arguments,' *WECOL* 5, 240~250.
- Platzack, C. and A. Holmberg (1989) 'The Role of AGR and Finiteness in Germanic VO Languages,' *Working Papers in Scandinavian Syntax* 43, 51~76.
- Pollock, J. (1989) 'Verb Movement, Universal Grammar, and the Structure of IP,' *Linguistic Inquiry* 20, 365~424.
- Roberts, I. (1992) *Verbs and Diachronic Syntax*, Kluwer, Dordrecht.
- Rohrbacher, B. (1992) 'English and Mainland Scandinavian Auxiliaries and

- the Theory of V-to INFL Raising,' *WECOL* 5, 307~321.
- Saito, M. and K. Murasugi (1993) 'Subject Predication Within IP and DP,' Ms., University of Connecticut and Kinjo Gakuin University.
- Sohn, K-W. (1994) 'Additional Argument Effects, Scrambling and the ECP,' Ms., University of Connecticut.
- Song, S-J. (1977) 'Pwucenguy Yangsanguy Pwucengcek Yangsang (Negative Remarks on Aspects of Negation),' *Kwukehk* 5, 450~500.
- Suh, J-H. (1990) *Scope Phenomena and Aspects of Korean Syntax*, Doctoral Dissertation, University of Southern California.
- Vikner, S. (1990) *Verb Movement and the Licensing of NP Position in the Germanic Languages*, Doctoral Dissertation, University of Geneva.
- Whitman, John (1990) 'String Vacuous V to COMP,' Ms., Cornell University.
- \_\_\_\_\_ (1994) 'Rightward Head Movement,' an abstract submitted in Japanese Conference at MIT.
- Yoon, J-Y. (1990) *Korean Syntax and Generalized X-bar Theory*, Doctoral Dissertation, University of Texas at Austin.

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