The Structure of Long Form Negation and Argument Composition*

Jong-Bok Kim and Byung-Soo Park
School of English
Kyung Hee University
1 Hoegi-dong, Dongdaemoon-gu
Seoul, Korea 130-701
{jongbok,byspark}@nms.kyunghee.ac.kr

November 5, 2000

Abstract

There have been two main views of the structure of Korean Long Form negation: VP complement analysis and verb-complex analysis. This paper argues for the latter structure, based on various syntactic constituent tests such as adverb intervention, rightward movement construction, coordination, ellipsis, topicalization, clefting, and scrambling. These syntactic tests clearly indicate the negative auxiliary verb forms a strong, coherent syntactic unit with the preceding main verb. By treating the two verbs as a syntactic verb-complex, we can avoid additional devices in differentiating the behavior of the negative auxiliary construction from true VP-complement selecting verbs (e.g., equi verbs like *sultekha-ta* 'persuade'). The other aspect of this paper deals with is how the relevant information from the parts of such a verb

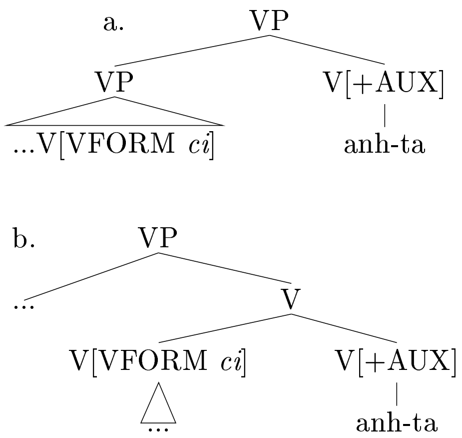
*Part of the paper appeared in Kim (2000a) and an earlier version of this paper was presented at the 12th International Conference on Korean Linguistics, July 13–15, 2000 Praha, Czech Republic. We are grateful for the participants' valuable comments and suggestions. Two anonymous reviewers also deserve our thanks for constructive criticisms. Of course we alone are responsible for any errors and mistakes. We gratefully acknowledge the support of the Korea Research Foundation (grant number KRF-99-042-A00007).

complex is combined in whole. For this purpose, the paper adopts the mechanism of argument composition that allows the negative auxiliary to select as its complement a verbal element (main verb) as well as the complement(s) that this verb selects. This system provides an explicit way of combining the relevant information of each part of the verb complex in the whole. The present verb-complex analysis with the mechanism of argument composition, armed with the precise lexical information, allows us to have a streamlined way of analyzing phenomena such as aspect selection, NPI licensing, and case marking.

1 Introduction

There have been two possible views of the structure of Korean Long Form Negation. One is to assume that the negative auxiliary takes a VP complement (cf. Kang 1988, Lee 1993, S.-Y. Kim 1993, Yoon 1993, among others) and the other is to claim that it forms a verb complex with the preceding main verb (cf. Sells 1991, 1994) as represented in (1)a and (1)b.

(1)



In this paper, we provide arguments for the verb-complex structure given in (1)b.

There are verbs that take a VP or S complement in Korean. For example, verbs like *seltukha-* 'persuade' take a VP complement marked with the COMP *-tolok*, as shown in (2).

(2) Tom-un Mary-lul/eykey [tosi-lul ttena-tolok]
Tom-TOP Mary-ACC/DAT city-ACC leave-COMP

seltukha-yess-ta.
persuade-PST-DECL
'Tom persuaded Mary to leave the city.'

Further, the causative verb *ha-ta*, requiring the main verb to be in *-key* COMP form, also appears to take a VP complement, as illustrated in (3).[1]

(3) John-un Mary-eykey [chayk-ul ilk-key] ha-yess-ta.
John-TOP Mary-DAT book-ACC read-COMP do-PST-DECL
'John made Mary read a book.'

Arguments for treating these verbs as VP-complement selecting verbs come from various constituent tests such as coordination, VP-pro, topicalization, clefting, rightward movement, and so forth.[2] Some of these various syntactic constituent tests reveal that the negative auxiliary behaves differently from the VP-complement selecting verb such as *seltukha-ta*. The verb *anh-ta* does not take a VP complement but selects a lexical element and forms a coherent constituent with it.[3]

2 Arguments for Taking 'V-ci anh-ta' as a Syntactic Unit

Adverb Intervention: Parenthetical adverbs like *eccayten* 'anyway' or *yehatten* can freely occur before or after any syntactic unit, as seen from (4).

[1]The COMP *-key* is morphologically not different from the COMP *-ci*, in that their stems should be untensed.

(i) a. ilk-(*ess)-key ha-yess-ta.
read-(*PST)-COMP do-PST-DECL

b. ilk-(*ess)-ci anh-ass-ta.
read-(*PST)-COMP NEG-PST-DECL

[2]See Choe 1987, Y.S. Kang 1988, and Chung 1993 for Korean and Gunji 1986 and Sells 1991 for Japanese.

[3]As an anonymous reviewer does, one may argue that applying such syntactic tests to the LFN is not proper since VP complement selecting verbs are main verbs whereas the negative verb *ahn-ta* is an auxiliary one. We assume that syntactic constituent tests have nothing to do with the type of verbs: they can be applied to any type of syntactic elements to check if they form a strong syntactic unit or not.

(4) (yehatten) Mary-nun (yehatten) tosi-lul (yehatten) ttenassta.
anyway Mary-TOP city-ACC left
'Anyway, Mary left the town.'

In sentences headed by a VP complement selecting verb, this parenthetical adverb can occur in any place, even between the verb and its VP complement as illustrated in (5).

(5) Tom-un Mary-eykey [tosi-lul ttena-tolok]
Tom-TOP Mary-DAT city-ACC leave-COMP

eccayten seltukha-ess-ta.
anyway persuade-PST-DECL
'Tom persuaded Mary to leave the town anyway.'

However, (6) reveals that in LFN, parenthetical adverbs cannot occur freely: they cannot intervene between the negative auxiliary and its preceding main verb.

(6) Mary-nun (eccayten) tosi-lul (eccayten) ttena-ci
Mary-TOP anyway city-ACC leave-COMP

(*eccayten) anh-ass-ta.
NEG-PST-DECL

The impossibility of any intervening element between the main verb and the negative auxiliary can be attributed to the strong syntactic cohesion between them.

Rightward Movement Constructions: The asymmetry between the negative auxiliary and VP selecting verbs can also be found in rightward movement constructions.[4]

(7) a. Tom-un Mary-eykey seltukha-yess-ta,
Tom-TOP Mary-DAT persuade-PST-DECL

[tosi-lul ttena-tolok].
city-ACC leave-COMP
'Tom persuaded Mary to leave the town.'

[4] See Choe (1987) for a detailed discussion of Korean rightward movement constructions.

b. *Mary-ka anh-ass-ta, [tosi-lul ttena-ci].
Mary-NOM Neg-PST-DECL city-ACC leave-COMP

As observed in the contrast between (7)a and (7)b, though the VP complement of the verb *seltukha-* can be freely dislocated to the right of the sentence, the alleged VP complement of the negative auxiliary cannot.

Coordination: There are other clear cases in which verbal complexes behave as a unit. One case can be found from the coordination of two tensed verb complexes (cf. Bratt 1995). We cannot drop the negative auxiliary:[5]

(8) Tom-un pap-ul [[ha-ci-to anh-ass-ko],
Tom-TOP rice-ACC do-COMP-DEL NEG-PST-CONJ,

[mek-ci-to anh-ass-ta]].
eat-COMP-DEL NEG-PST-DECL
'Tom did neither cook rice nor eat it.'

Ellipsis: Further, in an ellipsis construction, a verb complex always goes together:

(9) Tom-i hakkyo-eyse pelsse tolao-ass-ni?
Tom-NOM school-LOC already return-PST-QUE
'Did Tom return from school already?'

To a question like (9), only (10)a can be a possible answer. No part of the verb complex, *ka-ci-to anh-ass-ta*, can be left alone or elided.

(10) a. Ung, ka-ci-to anh-ass-e
go-COMP-DEL NEG-PST-DECL
'(He) even didn't go.'

b. *Ung, ka-ci-to.

[5]One can argue that examples like (i) are a VP coordination.

(i) John-i [[ka-ci-to] [o-ci-to]] mos-ha-yess-ta
John-NOM go-COMP-DEL come-COMP-DEL NEG-do-PST-DECL
'John could neither come nor go.'

But such examples are better treated as a gapping or righward-movement sentence since the delimiter here cannot be replaced by any true conjunction marker.

c. *Ung, anh-ass-e.

We again see the contrast with a VP-taking verb. For example, the equi verb *seltukha-*, selecting a VP, can be used alone in a proper context:

(11) a. Tom-i hakkyo-ey ka-tolok seltukha-yess-ni?
Tom-NOM school-LOC go-COMP persuade-PST-QUE
'Did (you) persuade Tom to go to school?'

b. Ung, seltukha-yess-e.
yes, persuade-PST-DECL.

Topicalization: Topicalization also supports our claim that the negative auxiliary is not selecting a VP. Accepting the general assumption that only a constituent can move, we can assume that the complement of the verb *seltukha-ta* 'persuade' is truly a VP, as shown in (12).[6]

(12) a. Tom-i Mary-eykey tosi-lul ttena-tolok seltukhayessta.
Tom-TOP Mary-DAT city-ACC leave-COMP persuaded
'Tom persuaded Mary to leave the town.'

b. [tosi-lul ttena-tolok]-un Tom-i Mary-eykey __ seltukha-yess-ta.

But the examples in (13) show that the alleged VP complement of the negative auxiliary cannot be topicalized.

(13) a. Mary-ka [tosi-lul ttena-ci] anh-ass-ta.
Mary-NOM city-ACC leave-COMP NEG-PST-DECL
'Mary didn't leave the town.'

b. *[tosi-lul ttena-ci-nun] Mary-ka __ anh-ass-ta.
city-ACC leave-COMP-TOP Mary-NOM __ NEG-PST-DECL
'As for leaving the city, Mary didn't.'

If we took both the equi verb and the negative auxiliary to subcategorize for a VP complement, we would not expect this difference.

Clefting: Cleft constructions bring us another piece of evidence for the V-V treatment. Examples like (14) show that the VP complement of equi verbs such as *seltukha-* 'persuade' can be clefted.

[6]Raising verbs such as *sayngkakha-ta* 'think', *mit-ta* 'believe', and *kitayha-ta* 'expect' take VP or S as their complements and also behave like equi verbs in all the tests given in this paper, when used as VP-complement taking verbs.

(14) John-i seltukha-n kes-un [Mary-eykey maul-ul
John-NOM persuade-PNE thing-TOP Mary-DAT town-ACC

ttena-tolok] ha-n kes-i-ta.
leave-COMP do-PNE thing-COP-DECL
'What John persuaded is Mary to leave the town.'

But the situation is different in LFN constructions.

(15) John-i [pap-ul mek-ci] anh-ass-ta.
John-NOM [meal-ACC eat-COMP] NEG-PST-DECL
'John didn't eat a meal.'

(16) a. *John-i ha-ci anh-un kes-un
John-NOM do-COMP not-PNE thing-TOP

pap-ul mek-un kes-i-ta.
meal-ACC eat-PNE thing-COP-DECL
'What John did not do is eat a meal.'

b. John-i ha-ci anh-un kes-un
John-NOM do-COMP not-PNE thing-TOP

pap-ul mek-ci anh-un kes-i-ta.
meal-ACC eat-TOP not-PNE thing-COP-DECL

If the negative auxiliary subcategorizes for a VP complement as indicated in (15), there would be no overt reason to block this VP complement from undergoing clefting. But examples (16)a,b illustrate that the assumed VP complement of the auxiliary cannot be clefted, whereas the whole higher VP can.[7]

Scrambling: Scrambling facts again show the coherence between the negative auxiliary and its main verb. Examples (17) show that the equi verb *persuade* and its VP complements scramble freely.

[7]In a strict sense, the clefting of (15) would be something like **[John-i anh-un kes]-un...* with no *do* verb. However, this cannot be used as a test since the bracketed part is anyway illfomred since the clause contains no main verb. The clefting sentence (16)a is semantically anomalous too.

(17) a.

Tom-un	Mary-eykey	tosi-lul	ttena-tolok	seltukhayessta.
Tom-TOP	Mary-DAT	city-ACC	leave-COMP	persuaded

‘Tom persuaded Mary to leave town.’

b. Tom-un [tosi-lul ttena-tolok] Mary-eykey [t] seltukhayessta.

c. [Mary-eykey tosi-lul ttena-tolok] Tom-un [t] seltukhayessta.

But, as illustrated in (18), no such freedom of scrambling is allowed with the negative auxiliary: the alleged VP complement of the negative auxiliary cannot be scrambled out of its base position.

(18) a.

John-un	Tom-eykey	ku chayk-ul	cwu-ci	anhassta.
John-TOP	Tom-DAT	that book-ACC	give-COMP	NEG

‘John did not give the book to Tom.’

b. *John-un [ku chayk-ul cwu-ci] Tom-eykey [t] anh-ass-ta.

c. *[Tom-eykey ku chayk-ul cwu-ci] John-un [t] anh-ass-ta.

The syntactic constituent tests we have seen so far clearly indicate the difference between the negative auxiliary and VP-complement selecting verbs. This further shows that we cannot simply claim that the negative auxiliary subcategorizes for a VP complement. If we stick to this view, we would need to adopt additional devices to capture the differences between the negative auxiliary *anh-ta* and VP-complement taking verbs such as equi verbs like *seltukha-ta* ‘persuade’. The verb-complex analysis we defend here calls upon no such additional machinery: the different syntactic behavior can easily be explained.

3 Argument Composition in Long Form Negation

Given the structure of LFN as a verb complex, the remaining concern is how the relevant information from the parts of such a verb complex is combined in the whole.[8]

[8] See Sells 1991 for an analysis of Korean auxiliaries in which complex predicates are represented as forms which involve a specification of argument structure and event-structure.

For this purpose, we introduce the mechanism of argument composition, a concept borrowed from categorial grammar, which has been used to various phenomena in different languages.[9] The basic motivation of the argument composition is to allow a saturated-complement taking verb to alternatively select a non-saturated head. Adopting this idea, we take the negative auxiliary, *anh-ta* to have the following lexical information at least (cf. Bratt 1995).

(19) anh-ta: $$\begin{bmatrix} \text{HEAD} & \textit{verb} \\ \text{SUBJ} & \langle \boxed{1} \rangle \\ \text{COMPS} & \left\langle \text{V} \begin{bmatrix} \text{SUBJ} & \langle \boxed{1} \rangle \\ \text{COMPS} & \text{L} \\ \text{CONT} & \boxed{2} \end{bmatrix} \right\rangle \oplus \text{L} \\ \text{CONT} & \begin{bmatrix} \textit{not-rel} & \\ \text{ARG} & \boxed{2} \end{bmatrix} \end{bmatrix}$$

The lexical entry in (19) specifies that the negative auxiliary selects as its complement a verbal element as well as the complement(s) (L) that this verb selects. The subcategorization requirements of the complement verb are thus passed to the negative auxiliary head with which it combines. Also, notice that the negative auxiliary verb is treated as a raising verb (cf. Sells 1991). This is represented by the identity ($\boxed{1}$) between the SUBJ value of the negative auxiliary and that of the selected complement verb.[10]

Following Bratt (1995), we assume that Korean allows a single lexical complement to combine with the head selecting the lexical complement:

(20) Lexical Head-Complement Schema:
X[+LEX] $\rightarrow$ Complement[+LEX], H[+LEX]

[9] See Bratt 1995 and Chung 1998 and references cited therein.

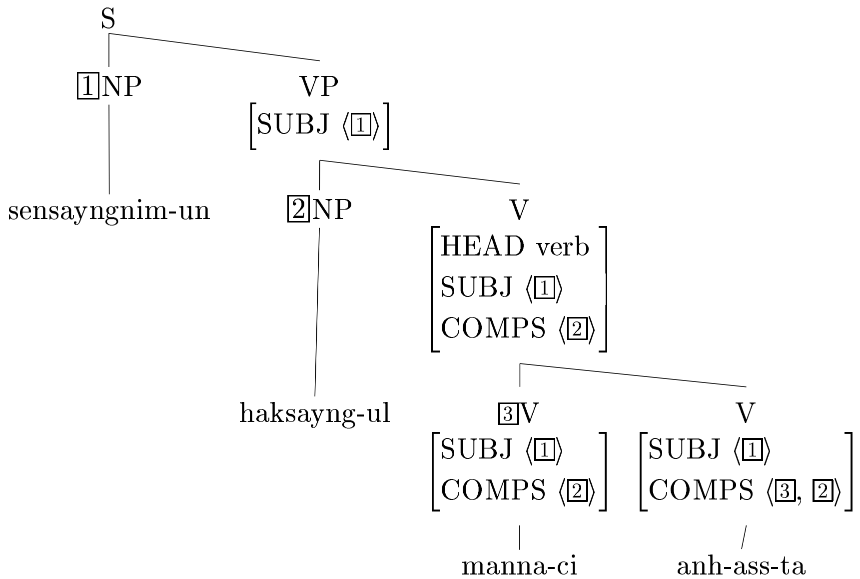
[10] One may misinterpret this argument composition in the way that from the beginning the negative auxiliary has all the syntactic information of the complement(s) that the main verb selects. The lexical entry does not say this. This misinterpretation may come from the misunderstanding of feature descriptions and structure-sharing. All the 'not-fully specified' lexical entry says is that in one sense the information on the complement(s) of the main verb is transferred to the complement(s) of the negative auxiliary in one sense. This has been done by the mechanism of structure-sharing.

This schema, allowing a syntactically formed phrase to be counted as a lexical word, captures the constituenthood of a main and following auxiliary verb(s). See Sells 1991 and Chung 1993 for a similar analysis.[11]

The main difference between the argument composition analysis set forth here and others (especially in the LFG framework Sells 1991) is that the trigger (the negative auxiliary in Korean) includes syntactic as well as semantic (such as theta-role) information. The present argument composition is not just a composition of theta-roles, but a composition of all the relevant information. This difference crucially contributes to the results we discuss below.

The representation in (21) demonstrates how this argument composition works when the negative auxiliary verb combines with a transitive verb like *manna-* 'meet'.

(21)



[11] Within the traditional assumption that a combination of two lexical words cannot result in another lexical category, the structure in (20) may look unacceptable, as a reviewer points out. We distinguish a morphological complex verb from a syntactic complex verb predicate. The LFN complex predicate cannot be a morphological one since various delimiters can be attached to the main verb as in *manna-ci-to anh-assta* 'meet-COMP-also NEG-PST-DECL'. In the present system, the complex verb is used in the sense that two lexical words form a syntactic unit and acts like a syntactic word in selecting for complements as represented in (21). Nothing is wrong to assume that the complex verb in the LFN is a V′ constituent as in a traditional grammar.

The transitive verb *manna-* takes a subject and an object. According to the lexical entry given in (20), the negative auxiliary selects this transitive verb as well as its object complement via the composition mechanism (indicated by $\oplus$). When the negative auxiliary combines with the main verb *manna-*, the result still requires its object complement. The Head-Complement Schema allows the resulting verb complex to combine with the object complement and form the top VP. This VP in turn combines with the subject NP to form the fully saturated grammatical sentence in accordance with the Head-Subject Schema in HPSG. We thus can see here that the precise lexical information, introducing the argument composition mechanism, provides an explicit way of combining the relevant information of each part of the verb complex in the whole.

4 Some Consequences

The analysis presented here gives us several (indirect as well as direct) welcome results. In what follows, we will discuss these.

4.1 Aspect Selection

First, by allowing the negative auxiliary to directly select the main verb it combines with, we can provide a systematic way of accounting for aspect selection in LFN constructions. The aspect marker *(nu)n* can occur with a non-stative verb like *ca-ta* 'sleep' as in (22)a, but not with a stative verb like *alumtap-ta* 'beautiful' as in (22)b.[12]

(22) a. Mary-ka cam-ul ca-n-ta.
Mary-NOM sleep-ACC sleep-ASP-DECL
Mary is sleeping.

b. Mary-ka alumtap-(*nun)-ta.
Mary-NOM beautiful-*ASP-DECL

Note that this aspectual restriction on the embedded verb cannot influence its higher verb selecting a VP or a S, as illustrated in (23).

[12]The suffix *(nu)n* has been called either an aspectual marker or a present tense marker. We will use these two terms interchangeably, since the choice of the terminology does not affect the analysis presented here. For further discussion of the nature of *(nu)n*, see Kang 1988.

(23) a.

Tom-un	Mary-lul	alumtap-ta-ko	yeki-n-ta.
Tom-TOP	Mary-ACC	beautiful-DECL-COMP	consider-ASP-DECL

'Tom considers Mary to be beautiful.'

b.

Tom-un	Mary-ka	alumtap-ta-ko	sayngkakha-n-ta.
Tom-TOP	Mary-NOM	beautiful-DECL-COMP	think-ASP-DECL

'Tom thinks that Mary is beautiful.'

But notice that the situation is different in negative auxiliary cases: the aspectual restriction on the content verb carries over to the negative auxiliary:

(24) a.

Mary-ka	alumtap-ci	anh-(*nun)-ta.
Mary-NOM	beautiful-COMP	NEG-*ASP-DECL

b.

Mary-ka	cam-ul	ca-ci	anh-*(nun)-ta.
Mary-NOM	sleep-ACC	sleep-COMP	NEG-*ASP-DECL

'Mary isn't sleeping.'

The analysis presented here, in which the negative auxiliary takes the main verb as a direct complement, provides a clean way of stating this constraint. It has been accepted that Korean has in general no formal syntactic distinction between adjectives and verbs other than certain features such as stative and non-stative.[13] Given the assumption that each verb is specified with the binary head feature STATIVE, all that is required is to add one constraint such that the negative auxiliary selects a verb whose STATIVE value is identical with its STATIVE value.[14] The lexical entry given (25) represents this constraint (omitting irrelevant information).[15]

(25) $$\text{anh-ta: } \begin{bmatrix} \text{HEAD} & \textit{verb}[\text{STATIVE} \quad \alpha] \\ \text{COMPS} & \langle \text{V}[\text{STATIVE} \quad \alpha], \ldots \rangle \end{bmatrix}$$

[13] Both adjectives and verbs are used as predicates, inflected with verbal suffixes including honorific, tense, and mood. In all the syntactic positions where verbs can occur, adjectives are also possible unless otherwise constrained.

[14] Another motivation for introducing such a binary feature can be found in the combinatoric restrictions each auxiliary has. Auxiliaries in Korean can be classified into three main groups: auxiliaries combining only with a non-stative verb (i.e. *po-ta* 'try', *peli-ta* 'do(?)', *nay-ta*, etc), auxiliaries combining with a stative verb (i.e. *ci-ta*), and auxiliaries combining with any verb (i.e. *yangha-ta* 'pretend', *cheyha-ta* 'pretend', negative auxiliaries *anh-ta* and *mos-ha-ta*)

[15] We do not deny that a VP analysis can miss such a generalization. What we try to show here is how the composition analysis directly captures facts about aspect selection.

The consequence of this lexical entry is to allow the negative auxiliary to inherit the STATIVE value of the main verb it selects. When the negation combines with a stative verb like *alumtap-ta* 'beautiful-DECL', it inherits its stativity, and thus cannot occur with the aspectual marker *(nu)n*.

4.2 NPI Licensing

Another advantage of the argument composition analysis comes from NPI licensing facts. Consider the following examples.

(26) a. *Tom-un $_{S}$[John-i amwukesto ilk-ess-ta-ko]
Tom-TOP John-NOM anything read-PST-DECL-COMP

mit-ci anh-ass-ta.
believe-COMP NEG-PST-DECL
'Tom didn't believe that John read anything.'

b. *Tom-un Mary-lul $_{VP}$[amwukesto mek-tolok]
Tom-TOP Mary-ACC anything eat-COMP

seltukha-ci anh-ass-ta.
persuade-COMP NEG-PST-DECL
'Tom didn't persuade Mary to eat anything.'

If we accept the assumption that an NPI and its licensor need to be within the same clause,[16] the ungrammaticality of (26)a,b illustrates that a sentence selecting either an S or VP complement exhibits bi-clausal properties. But, as noticed previously, a LFN sentence freely allows an NPI object, showing its mono-clausal nature.

[16] To some speakers, sentences like (i) are acceptable.

(i) Tom-un $_{S}$[amwu-to ku chayk-ul ilk-ess-ta-ko]
Tom-TOP anybody-DEL the book read-PST-DECL-COMP

sayngkak-ci anh-ass-ta.
think-COMP NEG-PST-DECL
'Tom didn't think that anyone read the book.'

When the NPI appears in the subject position of the embedded clause, it seems that the clause-mate condition can be violated. Also, in various languages, it is known that bridge verbs such as *sayngkakha-ta* are transparent to the clause-mate condition for NPI licensing. To account for such, we need a finer-grained theory to reflect these factors.

(27) a. Tom-un amwuto manna-ci anh-ass-ta.
Tom-TOP anybody meet-COMP NEG-PST-DECL
'Tom didn't meet anyone.'

b. Tom-un amwukesto mek-ci anh-ass-ta.
Tom-TOP anything eat-COMP NEG-PST-DECL
'Tom didn't eat anything.'

Notice that the present analysis can account for NPI licensing in LFN in a straightforward manner. Since the negative auxiliary selects the complement(s) of the main verb via argument composition, the (subject or object) NPI complement is still within the same clause with the negative auxiliary.

4.3 Case Marking

Another possible advantage of the argument composition analysis concerns case assignment to the main verb in a Long Form sentence. One telling fact in LFN constructions is that the main verb selected by the negative auxiliary can be case-marked and further displays case alternation possibilities: a stative main verb can be marked by either NOM or ACC whereas a non-stative verb can be marked only ACC, as illustrated in (28).[17]

(28) a. Kim-un nolay-lul pwulu-ci-lul/*ka anh-nun-ta.
Kim-TOP song-ACC sing-COMP-ACC/NOM NEG-PRES-DECL
'Kim doesn't sing a song.'

b. Ku kyosil-i kkaykusha-ci-lul/ka anh-ta.
that classroom-NOM clean-COMP-ACC/NOM NEG-DECL
'That classroom isn't clean.'

However, the stativity alone is not enough to determine the case alternation, as noted by Y. Kim (1993).

(29) elum-i acik nok-ci-lul/ka anh-nun-ta.
ice-NOM yet melt-COMP-ACC/NOM NEG-PRES-DECL
'The ice isn't melting yet.'

[17] As one reviewer points out, the case marker on the main verb in (28) is not a true case marker but a focus marker. To our knowledge, no focus marker shows alternations depending on the syntactic context. But this does not deny that this case marker may, in addition, have a focus function too.

Example (29) shows that an unaccusative verb, though semantically non-stative, allows itself to be nominative.[18]

Notice also that there are other cases where non-subject elements can be either nominative or accusative marked:

(30) Tom-i John-eykey ton-i/ul
Tom-NOM John-by money-NOM/ACC

ppayass-ki-ess-ta.
take.away-PASS-PST-DECL
'Tom was robbed of his money by John.'

Though a complete analysis of case marking in Korean is beyond the scope of the present study, a rough generalization we can draw from the set of data here is that whether or not a verb can select an agent (external) argument plays a crucial role in the assignment of case markings, as noted by Y. Kim (1993). Adopting their idea, we tentatively assume the following case assignment condition:[19]

(31) A verb which does not select an ACTOR subject, allows its verbal complement to be (structurally) nominative or accusative.

Given this condition, consider one example where the negative auxiliary *anh-ta* 'NEG-DECL' combines with a stative verb like *kulip-ta* 'miss-DECL'. [20]

[18] The non-stativity of *nok-ta* can be attested by the attachment of *-ko iss-ta* 'in the state of':

(i) a. ai-ka wul-ko iss-ta.
child-NOM cry-COMP in.state.of-DECL
'The child is crying.'

b. *ai-ka yeppu-ko iss-ta.
child-NOM pretty-COMP in.state.of-DECL

c. elum-i nok-ko iss-ta.
ice-NOM melt-COMP in.state.of-DECL
'The ice is melting.'

[19] This condition is in the spirit of Y. Kim's (1993) condition that a verb with no external argument can be nominative marked.

[20] There is an issue of how a V^0 element get the CASE value. We cannot simply assume that a COMP marked verb is turned into a noun, because the verb stem a COMP suffix combines with can be inflected with verbal affixes as in *cap-usi-ci* 'catch-HON-COMP'

(32) a. kulip-ta:

$$\begin{bmatrix} \text{HEAD} & \textit{verb} \\ \text{SUBJ} & \left\langle \boxed{1}\text{NP}_{\boxed{3}} \right\rangle \\ \text{COMPS} & \left\langle \boxed{2}\text{NP}[\textit{nom}]_{\boxed{4}} \right\rangle \\ \text{CONT} & \begin{bmatrix} \textit{miss-rel} & \\ \text{EXPERIENCER} & \boxed{3} \\ \text{THEME} & \boxed{4} \end{bmatrix} \end{bmatrix}$$

b. anh-ta: (becomes an emotion verb)

$$\begin{bmatrix} \text{HEAD} & \textit{verb} \\ \text{SUBJ} & \langle \boxed{1}\text{NP} \rangle \\ \text{COMPS} & \left\langle \text{V}\begin{bmatrix} \text{HEAD} & [\text{CASE } \textit{str}] \\ \text{SUBJ} & \langle \boxed{1}\text{NP}_{\boxed{3}} \rangle \\ \text{COMPS} & \langle \boxed{2}\text{NP}[\textit{nom}]_{\boxed{4}} \rangle \end{bmatrix} \right\rangle \oplus \langle \boxed{2}\text{NP}[\textit{nom}] \rangle \end{bmatrix}$$

In the present argument composition analysis, the complement of the main verb is inherited by the auxiliary verb. When the negative verb combines with an emotion verb, it still acts like an emotion verb, selecting an experiencer and theme: the subject of the negative is structure-shared with the main verb's subject whose role is an experiencer, the inherited complement is a theme. Thus according to the case assignment constraint in (31), we can assign nominative marking as well as accusative marking to the verbal complement of the negative auxiliary, as in (33).[21]

---

and *cap-ass-eya* 'catch-PST-COMP'. One possible way of capturing the generalization that only a nominal element gets Case is to claim that a COMP suffixed verb is [+V, +N] and a [+N] element is case-marked in Korean. A detailed formulation of this is put aside. See Kim (2000b) for this direction.

[21] Adapting Yoo's (1994) analysis, we assume that the case of some NPs can be underspecified in the lexicon with the value [*str(uctural)*]. And this CASE value is specified into either structural *nom(inative)* or *acc(usative)* according to the following case assignment condition:

(i) Case Assignment Condition in Korean:
If an NP's CASE value is [*str(uctural)*] and a SUBJ-DTR, its CASE value is specified to be *nom*, and if it is a COMP-DTR, it is specified to be *acc*.

Also see Bratt (1995) for similar case assignment analyses.

(33)

John-i	kohyang-i	kulip-ci-ka/lul	anh-ta.
John-NOM	hometown-NOM	miss-COM-NOM/ACC	NEG-DECL

‘John doesn’t miss his hometown.’

But when a main verb like *mek-* ‘eat’ selects an actor, the main verb cannot be nominative as in (34).

(34)

John-i	sakwa-ul	mek-ci-*ka/lul	anh-ass-ta.
John-NOM	apple-ACC	eat-COMP-*NOM/ACC	NEG-PST-DECL

‘John didn’t eat the apple.’

This will become obvious, considering the lexical entries for the verb *mek-ta* and the negative auxiliary together.

(35) a. mek-ta:

$$\begin{bmatrix} \text{HEAD} & \textit{verb} \\ \text{SUBJ} & \langle \boxed{1}\text{NP}_{\boxed{3}} \rangle \\ \text{COMPS} & \langle \boxed{2}\text{NP}_{\boxed{4}} \rangle \\ \text{CONT} & \begin{bmatrix} \textit{eat-rel} & \\ \text{ACTOR} & \boxed{3} \\ \text{PATIENT} & \boxed{4} \end{bmatrix} \end{bmatrix}$$

b. anh-ta: (becomes an action verb)

$$\begin{bmatrix} \text{HEAD} & \textit{verb} \\ \text{SUBJ} & \langle \boxed{1}\text{NP} \rangle \\ \text{COMPS} & \left\langle \text{V}\begin{bmatrix} \text{HEAD} & [\text{CASE } \textit{str}] \\ \text{SUBJ} & \langle \boxed{1}\text{NP}_{\boxed{3}} \rangle \\ \text{COMPS} & \langle \boxed{2}\text{NP}_{\boxed{4}} \rangle \end{bmatrix} \right\rangle \oplus \langle \boxed{2}\text{NP}_{\boxed{4}} \rangle \end{bmatrix}$$

As has been observed, argument composition guarantees that when the negative auxiliary combines with a transitive verb selecting an actor and a patient, the auxiliary inherits all of the properties of the latter. In this case, the negative verb *does* select an actor argument. We hence cannot apply the case assignment condition in (31) to the verbal complement of the negative auxiliary here. The verbal complement of the negative auxiliary is thus accusative-marked, but not nominative-marked.

5 Conclusion

This paper looked into the structures of LFN from a lexicalist, and non-derivational perspective. We have seen that tests such as rightward movement, adverb modification, coordination, topicalizaiton, and parenthetical phenomena have proved that the negative auxiliary forms a strong syntactic unit with the content verb and does not syntactically select for a VP complement. This in fact supports the verb complex approach. Given this verb complex structure for LFN, we have further introduced the mechanism of argument composition in order to account for the combination of the relevant information from the parts of such a verb complex. This mechanism has, directly and indirectly, offered us simple and clean ways of stating aspect selection, NPI licensing, and case assignment in LFN constructions.

References

Ahn, Hee-Don. 1991. *Light Verbs, VP-movement, Negation and Clausal Architecture in Korean and English.* Doctoral Dissertation, University of Wisconsin-Madison.

Bratt, Elizabeth. 1995. *Argument Composition and the Lexicon: Lexical and Periphrastic Causatives in Korean.* Doctoral Dissertation. Stanford University.

Choe, Hyon Sook. 1987. *Restructuring Parameters and Complex Predicates: A Transformational Approach.* Doctoral Dissertation, MIT.

Choi, Kiyong. 1991. *A Theory of Syntactic X^0-Subcategorization.* Doctoral dissertation, University of Washington.

Chung, Chan. 1993. Korean Auxiliary Verb Constructions Without VP nodes. In S. Kuno et al. (eds.), *Harvard Studies in Korean Linguistics*, 5, 274–286. Seoul: Hanshin.

Chung, Chan. 1998. Argument Composition and Long-Distance Scrambling in Korean: An Extension of the Complex Predicate Analysis. In Hinrichs et al. (eds.) *Complex Predicates in Nonderivational Syntax*, 159–220. New York: Academic Press.

Gunji, Takao. 1986. *Japanese Phrase Structure Grammar.* Dordrecht. Reidel.

Kang, Myung-Yoon. 1988. *Topics in Korean Syntax: Phrase Structure,* *Variable Binding, Movement.* Doctoral Dissertation, MIT.

Kim, Jong-Bok. 2000a. *The Grammar of Negation: A Constraint-Based Approach.* Stanford: CSLI Publications.

Kim, Jong-Bok. 2000b. Mixed Categories and Multiple Inheritance Hierarchy in Korean Verbal Gerundive Constructions. Paper presented at the 25th West-East Conference on Linguistics, California State University at Fresno.

Kim, Yookyung. 1993. Case Marking in Korean Post-verbal Negation. In Soonja Choi (ed.), *Japanese/Korean Linguistics* 3, 288–304. Stanford: CSLI Publications.

Lee, Jae Hong, 1993. Postverbal Adverbs and Verb Movement in Korean. In P. Clancy (ed.), *Japanese/Korean Linguistics 2,* 429-446. Stanford: Stanford Linguistics Association,

Pollock, Jean-Yves. 1989. Verb Movement, Universal Grammar, and the Structure of IP. *LI* 20, 365-424.

Pollard, Carl and Ivan Sag. 1994. *Head-Driven Phrase Structure Grammar.* Chicago: University of Chicago Press and Stanford: CSLI.

Sells, Peter. 1991. Complex Verbs and Argument Structures in Korean. In S. Kuno et al. (ed.), *Harvard Studies in Korean Linguistics* VI, 395–406. Seoul: Hanshin.

Sells, Peter. 1994. Sub-Phrasal Syntax in Korean. *Language Research* (Journal of the Linguistic Society of Korea) 30: 351–386.

Sells, Peter. 1998. Structural Relationships within complex predicates. In B.-S. Park and James Yoon (eds.), *The 11th International Conference on Korean Linguistics.* Seoul: Hankwuk Publishing.

Yoon, James. 1994. Korean Verbal Inflection and Checking Theory. In Heidi Harley and Colin Phillips (eds.), *The Morphology-Syntax Connection*, 251-270. Cambridge: MITWPL.