Negative Agreement*

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Lee, Jeong-Shik. (2012). Negative agreement. *The Linguistic Association of Korean Journal*, *20*(4), 45-69. In this paper I show that negative agreement is subject to locality by observing the distribution of NPI in a couple of different negation constructions from Korean. I will attempt to offer an analysis of the related phenomena in terms of Agree, as defined in Chomsky (2000, 2001). I argue that this analysis should be grounded on the underlyingly head-initial structure under the SVO hypothesis in Korean, but not on the traditional head-final structure under the SOV hypothesis.

Key Words: negative agreement, NPI, Agree, head-initial, head-final, SVO hypothesis, SOV hypothesis

1. Introduction

In this paper, I aim at providing a reasonable structural account for negative agreement in Korean. I eventually reach the conclusion that the traditional head-final structure cannot work but the underlyingly head-initial structure can successfully deal with the negative agreement.

For the above purpose, I observe negative agreement between the neg *an(h)* and the *-ci* element in section 2 and negative agreement between the neg *an(h)*

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and the NPI in normal negation constructions in section 3. I also observe negative agreement with regard to NPI licensing in the verb repetition construction in section 4. In dealing with the negative agreement, I argue that the SVO hypothesis should be preferred over the SOV hypothesis by showing that descriptions of negative agreement in a variety of negation sentences can receive a natural structural explanation under the underlyingly head-initial structure rather than under the traditional head-final structure in sections 5, 6 and 7. Finally, section 8 concludes the paper.

The success of the SVO hypothesis for Korean then supports Kaynean universal spec-head-complement order and helps eliminate the head parameter from the computation, thereby reducing computational complexity in line with recent minimalism (Chomsky 2000, 2001).

2. Negative Agreement

Let us first consider the following two pairs of affirmative and negative sentences:

(1) a. Cheli-ka iki-ki-un ha-ess-ta.
C.-Nom win-KI-Top do-Past-Dec
'(Lit.) Win, Chelswu did.'
b. *Cheli-ka iki-ci-nun ha-ess-ta.
C.-Nom win-CI-Top do-Past-Dec
(2) a. *Cheli-ka iki-ki-un anh-ass-ta.
C.-Nom win-KI-Top not.do-Past-Dec
'(Lit.) Win, Chelswu did not.'
b. Cheli-ka iki-ci-nun anh-ass-ta.
C.-Nom win-CI-Top not.do-Past-Dec

It is obvious that the contrast between (1a) and (1b) comes from the different nominalizing, infinitival or gerundival element *-ki* and *-ci*, respectively. Call them gerundival marker for the current descriptive purpose. The same contrast

also obtains between (2a) and (2b) for this reason. In some references, sentences like (1a,2b) are called VP-focus construction (Kang 1988), indicating that *-ki* and *-ci* carry focus with them. What is observed is that *-ki* occurs only in the affirmative sentence, and that *-ci* occurs only in the negative sentence. Thus the initial generalization can be stated as follows:[1)]

(3) a. *-ki* must be licensed by an affirmative element.
b. *-ci* must be licensed by a negative element.

In the absence of the overt affirmative marker in licensing *-ki*, it may be assumed that the Pol(arity) head or an operator in Spec PolP licenses both *-ki* and *-ci*. In this structure, then, NegP can be replaced by PolP. With this in mind, in the ensuing discussion we will mainly use NegP.

Sentences like (2b) are widely known to be 'long form negation' (henceforth, LN) in Korean (Kang 1988). For the purpose of description of negation, the 'short form negation' (henceforth, SN) counterpart of (2b) is also introduced:

(4) Cheli-ka an iki-ess-ta.
C.-Nom not win-Past-Dec
'Cheli did not win.'

In SN, the negative element appears right before the verb, and *-ci* or *-ki* is not required. In the following discussion, I call the negative element in SN 'the first negation' in that it first appears before the main verb, like a prefixal element, and the one in LN 'the second negation' in that it appears after the main verb.

Here what stands out the most is that the affix *-ci* is licensed by the negative element only in LN. In (2b), for example, the licensor of *-ci* is the negative element *anh-* 'not.' In addition, *mos-* 'not' can also serve as a licensor:

(5) Cheli-ka iki-ci-nun mos-ha-ess-ta.
C.-Nom win-CI-Top not.do-Past-Dec
'(Lit.) Win, Cheli did not.'

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1) A reviewer points out that while *-ki* is a nominalizer, *-ci* is a complementizer of the kind. Whatever it may be, however, the description in (3a,b) remains valid.

Noting this fact, I mainly use the negation *an(h)*.

Assuming that the licensing in question can be expressed as Agree in the sense of Chomsky (2000, 2001), it can be represented in terms of Agree as follows (order is irrelevant, and *mos-* may appear in place of *anh*):

(6) -ci an(h)
|_____|
Agree

(7) * -ki an(h)
|____X____|
Agree

Thus sentences like (2a) are predicted to be bad because the Agree relation between *-ki* and the negative element is illicit.

Interestingly, it is possible to have two negative elements in one sentence, in which case the first negation appears right in front of the main verb and the second negation follows the main verb:

(8) Cheli-ka an iki-ci-nun anh-ass-ta.
C.-Nom not win-CI-Top not.do-Past-Dec
'(Lit.) Not win, Cheli did not.'

Here the first negation does not license *-ci*, as evidenced by (9).

(9) *Cheli-ka an iki-ci-nun ha-ess-ta.
C.-Nom not win-CI-Top do-Past-Dec

Instead, the first negation is consistent with *-ki*:

(10) Cheli-ka an iki-ki-nun ha-ess-ta.
C.-Nom not win-KI-Top do-Past-Dec
'(Lit.) Not win, Cheli did.'

The *-ki* on the gerundival verb preceded by the negation *an* can only be licensed by the following affirmative Pol element invisible here. The example in

(11) thus confirms that negative agreement fails to occur between *-ki* and the second negation on the following finite verb as in (7), and between *-ki* and the first negation preceding the gerundival verb:

(11) *Cheli-ka an iki-ki-nun anh-ass-ta.
C.-Nom not win-KI-Top not.do-Past-Dec

3. NPI licensing in negation constructions

It is well known that a negative polarity item (NPI) can be licensed in both SN and LN constructions:

(12) na-nun amwuto an manna-ass-ta. (SN)
I-Top anyone not meet-Past-Dec
'I did not meet anyone.'
(13) na-nun amwuto manna-ci anh-ass-ta. (LN)
I-Top anyone meet-CI not-Past-Dec
'I did not meet anyone.'

This fact indicates that both SN and LN are a single clause, the usual NPI licensing domain (Kang 1988). Thus, in SN, NPI is licensed by the first negation, as depicted below (order irrelevant):

(14) amwuto ..... an V
|_____|
Agree

In LN, NPI is licensed ultimately by the second negation, as depicted below (order irrelevant):

(15) amwuto ..... V-ci an(h)
|___ Agree_____|

The following examples, compared with a different word order in (13), are out. (16b) shows that the ungrammaticality of (16a) should not be a matter of NPI licensing.

(16) a. *na-nun manna-ci amwuto anh-ass-ta.
I-Top meet-CI anyone not-Past-Dec
b. *na-nun manna-ci Cheli-to anh-ass-ta.
I-Top meet-CI C.-also not-Past-Dec

Apparently, locality of Agree in (6) is broken by the intervening object. This matter will be dealt with separately (see section 7.2).

It will also be interesting to see how NPI is licensed in the double negation construction:

(17) na-nun amwuto an manna-ci anh-ass-ta.
I-Top anyone not meet-CI not-Past-Dec
'I did not not.meet anyone.'

A question arises as to whether NPI can be licensed by the first negation or by the second negation in (17). Considering that the NPI is licensed by the second negation in the parallel example (13), the first negation seems to have little to do with the NPI licensing here. As indicated in the glossary, the first negative verb, *an manna-*, behaves like one lexical unit meaning 'not.meet,' which can be replaced by another lexical verb like *phiha-* 'avoid.'

4. NPI licensing in verb repetition construction

Let us now consider NPI licensing in a similar verb repetition construction:

(18) na-nun ku salam-ul manna-ki-nun manna-ass-ta.
I-Top the man-Acc meet-KI-Top meet-Past-Dec
'(Lit.) Meeting the man, I met (him).'

The verb *manna-* is repeated, with the first copy followed by *-ki*. Interestingly, the verb can be repeated in a negative form as well, as seen in (19a):

(19) a. na-nun ku salam-ul an manna-ki-nun an manna-ass-ta.
I-Top the man-Acc not meet-KI-Top not meet-Past-Dec
'(Lit.) Not meeting the man, I did not.'
b. *na-nun ku salam-ul an manna-ci-nun an manna-ass-ta.
I-Top the man-Acc not meet-CI-Top not meet-Past-Dec

This fact suggests that the repeated negative verb is a lexical unit--the negation *an* behaves like a prefix to the verb (see also (10)). What is to be noted is that *-ci* cannot be used in this construction, as seen in (19b). In this regard, the repetition of this negative verb is expected to take place as a whole, as confirmed by the following:

(20) a. *na-nun ku salam-ul an manna-ki-nun manna-ass-ta.
I-Top the man-Acc not meet-KI-Top meet-Past-Dec
b. *na-nun ku salam-ul manna-ki-nun an manna-ass-ta.
I-Top the man-Acc meet-KI-Top not meet-Past-Dec

Now, let us see how NPI is licensed in the verb repetition context:

(21) a. na-nun amwuto an manna-ki-nun an manna-ass-ta.
I-Top anyone not meet-KI-Top not meet-Past-Dec
'(Lit.) Not meeting anyone, I did not.'
b. na-nun an manna-ki-nun amwuto an manna-ass-ta.
I-Top not meet-KI-Top anyone not meet-Past-Dec

Here a question arises as to whether the NPI is licensed by (or agrees with) the first negation or the second negation. At this point, it seems unclear which one

is related to the NPI licensing. As for (21a), it appears that the NPI can be licensed by the first negative verb, as the following similar example appears to suggest:

(22) na-nun amwuto an manna-ki-nun ha-ess-ta.
I-Top anyone not meet-KI-Top do-Past-Dec
'(Lit.) Not meeting anyone, I did.'

But things still appear to be unclear in that (22) is not a verb repetition construction. For the descriptive purpose at current stage of discussion, assuming the widely adopted head-final structure, the relevant portion of the derivation of (21a) can be represented as one of the following:

(23) a. na-nun [[NegP ~~an~~ [amwuto an manna-ki-nun]] an manna-ass-ta].
b. na-nun [amwuto$_i$ [NegP ~~an~~ [t_i an manna-ki-nun]] an manna-ass-ta]].
c. na-nun [[amwuto ~~an manna-~~] an manna-ki-nun] an manna-ass-ta.

In (23a), the negation *an* in Spec NegP can license the NPI by c-commanding it before it is cliticized to the verb over the NPI complement. In (23b), the NPI object gets out of the lower VP to precede the negation *an*, which is then cliticized to the verb. In (23c), the negative verb raises up to the *-ki* head, and the resulting verbal complex licenses the NPI below. So the negation *an* can c-command the NPI or its trace in one way or another for the licensing.

Above, the negative verb is repeated, which may be captured by its head movement upward in the sense of Kang (1988), with both the lower copy and the higher one realized in different morphological forms. So from another perspective it may be said that the higher verbal copy and the lower one form a single verbal chain, and the NPI in (21a) may be said to be licensed by this verbal chain. In this regard, nothing seems to be seriously affected at this descriptive level even if the higher chain head, namely, the second negative verb, is said to license the NPI in question. As for (21b), it is unclear whether the NPI is licensed by the first negation or the second negation, either. Given the above discussion, the NPI here may also be licensed either by the first negation or by the second negation.

On the other hand, the following examples are straightforwardly ruled out:

(24) a. *na-nun manna-ki-nun amwuto an manna-ass-ta.
I-Top meet-KI-Top anyone not meet-Past-Dec
b. *na-nun an manna-ki-nun amwuto manna-ass-ta.
I-Top not meet-KI-Top anyone meet-Past-Dec

Although the NPI could be licensed by the second negation in (24a) and by the first negation in (24b), the bad result can be attributed to the lack of complete verb repetition--the same verb is only partially repeated.

5. Negative agreement in head-final structural terms

Negative agreement is often reduced to a structural condition such that a licensor c-commands a licensee (Laka 1990, among others). It appears that the head-final structure that has been assumed in Korean syntax under the SOV hypothesis can meet this structural requirement. One version of the structure in this line is taken for an illustrative purpose, proposed in Hagstrom (1997), where a unified account for both SN and LN is proposed, as illustrated in (25) (his (4)) and (26) (his (5)), respectively:

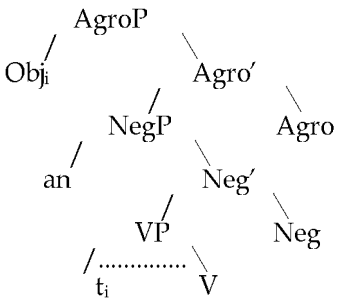
(25) Chelswu-ka [ppang-ul]$_i$ an(i) t_i mek-ess-ta. (SN)
C.-Nom bread-Acc not eat-Past-Dec
'Chelswu did not eat bread.'
(26) Chelswu-ka [ppang-ul mek-ci]$_i$ an(i) t_i ha-ess-ta. (LN)
C.-Nom bread-Acc eat-CI not do-Past-Dec
'Chelswu did not eat bread.'

He places the negative element *an* (henceforth, neg *an* for short) in Spec Neg, so the SN in (25), for example, is derived from object movement to the left of this negation by Object Shift, so to speak, and the LN in (26), for example, is derived by the entire leftward predicate movement over the negation.

The most relevant portion of the structure is extracted as given below. The

following is the structure for SN:

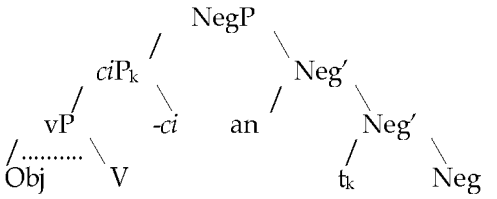
(27)



Above, the neg *an* in Spec NegP can license an object NPI by c-commanding its trace.[2] Thus the description (14) can receive this structural account.

In the LN structure, as given in (28), *-ci* can be c-commanded (in an extended sense of m-command) by *an*. (Its affirmative counterpart *-ki* can be c-commanded by Pol in place of *an*, with Neg(P) replaced by Pol(P).)

(28)



Thus, the description (6) can also receive this structural account. Also, the object NPI can be licensed in the above configuration, and thus, the structural description (15) follows as well.

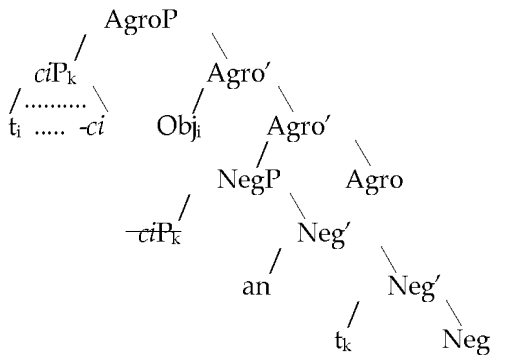
The ungrammaticality of (16a,b), repeated below, reveals a couple of restrictions on movement from a structural point of view:

(16) a. *na-nun manna-ci amwuto anh-ass-ta.
I-Top meet-CI anyone not-Past-Dec
b. *na-nun manna-ci Cheli-to anh-ass-ta.
I-Top meet-CI C.-also not-Past-Dec

2) If the object does not move, the neg *an* can directly c-command the NPI in its place, with *an*-cliticization to the verb over the complement, as seen in (23a) (see Park 1994).

First, rightward movement (henceforth, RM) of the object to derive (16a,b) by adjoining it internally to *-ci*P in (28) is prohibited for whatever reasons. Second, in an alternative derivation, the following two movements are prohibited possibly by the Proper Binding Condition (PBC) of the sort. As illustrated in (29) below, the object first leftward moves out of *-ci*P above NegP (see (28)) and plausibly to Spec AgroP; then the remaining *-ci*P leftward moves higher than the moved object, say, above AgroP, .[3]

(29)



With the above empirical evidence, we may say that these movements are not allowed because there are no justifiable motivations for them.[4] This point will

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3) The *-ci*P may move to a higher Spec of another head rather than to Spec AgroP. Even if this is the case, the current point is not affected.

4) A reviewer says that the ill-formed LNs in (16a,b) may also be handled if *-ci* is regarded as a Comp(lementizer). As I understand, this comment assumes that the LN examples in question are complex sentences, as represented in (ia) for (13), in which case the NPI is licensed by the negation across the clausal boundary:

(i) a. na-nun [pro amwuto manna-ci] anh-ass-ta.
b. *na-nun [pro t_i manna-ci] amwuto$_i$ anh-ass-ta.

Then the ill-formedness of (16a,b), as represented in (ib), may be attributed to the following fact; that is, internal RM is disallowed, as seen in (iib):

(ii) a. na-nun [Chelswu-ka amwuto an manna-ass-ta-ko] malha-ess-ta.
I-Top C-Nom anyone not meet-Dec-Past-Comp say-Past-Dec
'I said that Chelswu did not meet anyone.'
b. *na-nun [Chelswu-ka t_i an manna-ass-ta-ko] amwuto$_i$ malha-ess-ta.

While this may be one possible way out, the treatment requires an additional special

be used in later discussion.

Now it seems that negative agreement can be accounted for under the SOV hypothesis. But things are not so simple. There are some more variations in word order that defy the above simple structural solution under the SOV hypothesis, to which I will turn in the next section.

6. Negative agreement in different word order

As has often been discussed in the literature (Chung 2009, Lee 2008a, 2010, among others), the following right dislocated construction (henceforth, RDC) allows the NPI as an RD element:

(30) a. na-nun an manna-ass-ta amwuto.
I-Top not meet-Past-Dec anyone
'I did not meet anyone.'
b. na-nun manna-ci anh-ass-ta amwuto
I-Top meet-CI not-Past-Dec anyone
'I did not meet anyone.'

On the face of it, the above RDC may be said to be simply derived by RM of the NPI to the sentence-final position under the SOV hypothesis. This movement should be an adjunction to the highest node, MP or CP, because the NPI linearly appears after the clause-final affix *-ta*.

Recall, however, that internal RM is disallowed as seen in the derivation for (16a,b). Thus it is unclear how external RM can be allowed for (30), while internal RM is disallowed (see fn. 4). In contrast, external RM as well as internal RM is allowed in the verb repetition construction, as seen in (31b,c).

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mechanism for the NPI licensing in (i) which may use *-ci* in some conceivable manner (see (6)) to secure the clausemate locality in NPI licensing. Setting aside questions of whether *-ci* here is really a Comp and whether the negative dummy verb *anh-* can take a complement clause, this approach has to face the following conflicting example that allows further RM to the end of the sentence, which will be introduced in the next section (see (30b)):

(iii) na-nun [pro t_i manna-ci] t_i anh-ass-ta amwuto$_i$.

(31) a. na-nun amwuto an manna-ki-nun an manna-ass-ta. (=(21a))
I-Top anyone not meet-KI-Top not meet-Past-Dec
b. na-nun an manna-ki-nun amwuto an manna-ass-ta. (=(21b))
I-Top not meet-KI-Top anyone not meet-Past-Dec
c. na-nun an manna-ki-nun an manna-ass-ta amwuto.
I-Top not meet-KI-Top not meet-Past-Dec anyone

The confusion comes from the fact that (31b) has the same structure as (16a,b) under the SOV hypothesis (see (28)). Also, the alternative illicit derivation of (16a,b), as roughly shown in (29), can be equally applied to the derivation of (31b) as licit, thereby producing contradictory results.

In fact, RM proves untenable in another area, as shown by the following wrong prediction of binding relations (Lee 2008a, 2009):

(32) a. John-i [motun haksayng]$_i$-eykey ku$_i$-uy ccak-ul
J.-Nom every student-Dat he-Gen partner-Acc
sokayha-ess-ta.
introduce-Past-Dec
'John introduced every student his parter.'
b. John-i sokayha-ess-ta [motun haksayng]$_i$-eykey
J.-Nom introduce-Past-Dec every student-Dat
ku$_i$-uy ccak-ul.
he-Gen partner-Acc

(33) a. *John-i ku$_i$-uy ccak-eykey [motun haksayng]$_i$-ul
J.-Nom he-Gen partner-Dat every student-Acc
sokayha-ess-ta.
introduce-Past-Dec
b. *John-i sokayha-ess-ta ku$_i$-uy ccak-eykey
J.-Nom introduce-Past-Dec he-Gen partner-Dat
[motun haksayng]$_i$-ul.
every student-Acc

(32b) is derived from (32a) by RM of Dat-NP first and then by RM of Acc-NP, and thus, the Acc-NP becomes higher than the Dat-NP, leading to the wrong

prediction that (32b) is ungrammatical. (33b) is derived from (33a) by RM of Dat-NP first and then by RM of Acc-NP, and thus, the Acc-NP becomes higher than the Dat-NP, leading to the wrong prediction that (33b) is grammatical.

Further, word order variations given in (34) below pose a serious problem for the SOV hypothesis:[5)]

(34) a. na-nun amwuto an manna-ass-ta an manna-ki-nun.
I-Top anyone not meet-Past-Dec not meet-KI-Top
b. na-nun an manna-ass-ta an manna-ki-nun amwuto.
I-Top not meet-Past-Dec not meet-KI-Top anyone

Under this hypothesis, (34a) may be derived as roughly represented below:

(35) a. na-nun amwuto$_i$ [~~amwuto~~$_i$ an manna-ki-nun] an manna-ass-ta.
b. na-nun amwuto$_i$ [~~amwuto~~$_i$ ~~an manna-ki-nun~~]$_j$ an manna-ass-ta [~~amwuto~~$_i$ an manna-ki-nun]$_j$.

Above, the NPI object *amwuto* first leftward moves out of the lower VP, as in (35a), and then the whole VP containing the trace of it undergoes RM, as in (35b). However, RM proved to be a suspicious operation, rendering the derivation in (35b) unreliable. Alternatively, leftward movement of the sequence *an manna-ass-ta* over the sequence *an manna-ki-nun* may produce the order in (34a):

(36) na-nun amwuto [an manna-ass-ta] an manna-ki-nun
[~~an manna-ass-ta~~].

But this movement is not possible since the sequence is not a constituent. Even if it is a constituent as a verbal complex placed in C or M, it cannot undergo leftward movement this time because there is no hosting head on the left under the head-final structure. Similarly, the derivation of (34b) has to involve

5) It is noted that (31a) and (34a) constitute an instance of true optionality in that there is no difference in interpretation between the two. I will come back to this matter briefly in section 7.1.

unwanted RM of the sequence *an manna-ki-nun* and the NPI *amwuto*. An alternative derivation is obtained by leftward movement of the sequences *an manna-ass-ta* and *an manna-ki-nun* over the NPI. Setting aside its constituency, however, the former sequence cannot undergo head movement since there is no hosting head on the left under the head-final structure, as mentioned in the case of (36).

In sum, the derivations of (34a,b) involve zigzag movements to the left and to the right under the SOV hypothesis, with no clear motivation and consistent directionality, as shown in (35, 36) and below. Alternative derivation involving leftward head movement is untenable.

Finally, I consider one more analysis for the verb repetition construction in Korean developed under the SOV hypothesis in Jo (2004). The following are the sample derivations under his approach:

(37) a. [FP [VP Cheli-ka Yenghi-lul manna-]$_i$-ki [F -nun] [MP [TP [VP ~~Cheli-ka Yenghi-lul~~ manna-]$_i$-ess-ta]]]
b. Cheli-ka Yenghi-lul manna-ki-nun manna-ess-ta.
C.-Nom Y.-Acc meet-KI-Top meet-Past-Dec
'(Lit.) Meet Yenghi, Cheli met (her).'

(38) a. [FP [VP Cheli-ka Yenghi-lul manna-]$_i$-ki [F -nun] [MP [TP [VP ~~Cheli-ka~~ Yenghi-lul manna-]$_i$-ess-ta]]]
b. Cheli-ka Yenghi-lul manna-ki-nun Yenghi-lul manna-ess-ta.

(39) a. [FP [VP Cheli-ka Yenghi-lul manna-]$_i$-ki [F -nun] [MP [TP [VP Cheli-ka Yenghi-lul manna-]$_i$-ess-ta]]]
b. Cheli-ka Yenghi-lul manna-ki-nun Cheli-ka Yenghi-lul manna-ess-ta.

Above, the VP (i.e., *Cheli-ka Yenghi-lul manna-*) is copied in Spec FocP, and its lower copy gets deleted in such a way that the size of the deletion differs, thereby yielding three different variations as in (b) of the above examples. However, the Foc head *-nun* should be located in the head-final position under the SOV hypothesis, not in the head-initial position as above. If it is attached to the verbal complex head-finally, an illicit complex results, namely, **manna-ess-ta-nun*. Thus the expected form, *manna-ki-nun*, can never be obtained

above. Besides, word orders in examples like (34a,b) in which *an manna-ki-nun* and *an manna-ess-ta* are reversed cannot be derived under this analysis.[6)]

In sum, the SOV hypothesis cannot provide correct structures for the sentences displaying word order variation considered so far. Accordingly, negative agreement in these examples cannot be captured properly, either. All this situation points to a different conception of the phrase structure for Korean. In the next section, I will pursue the SVO hypothesis.

7. Negative agreement in head-initial structure

7.1. Verb repetition construction

Given the above pessimistic results from the SOV hypothesis, it is now worth applying the SVO hypothesis. I assume the following basic head skeleton of a sentence under this hypothesis.[7)]

(40) C--Top--Foc--T--v--Neg--Mood--Asp--V

I also assume that the alleged tense elements are in fact aspectual (Asp)

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6) Another remaining analysis under the SOV hypothesis would be the bi-clausal analysis pursued in Chung (2009). In this analysis, an RD element is a scrambled constituent in the doubled clause, and the rest of the elements in this clause undergoes deletion. The derivation of (34b), for example, would be like the following:

(i) [na-nun ~~an manna-ki-nun amwuto~~ an manna-ass-ta] & [an manna-ki-nun [amwuto ~~[na-nun an manna-ass-ta]~~]].

Here it is unclear whether scrambling of the sequence *an manna-ki-nun* and the NPI *amwuto* can have any reality. The former cannot leftward move as a head for reasons familiar by now. The other alternative derivation inevitably involves a violation of a condition like the PBC, as looked at around (29). For detailed discussion against the bi-clausal analysis, see also Lee (2009, 2011a).

7) The following morphological template is proposed on the ground of empirical basis (see Lee 2007, 2008a,b, 2009, 2010, 2011b, see also Koopman 2005). Here I do not intend to elaborate on the detailed derivations of sentences including verbal inflections under the SVO hypothesis for space reasons. In what follows, I will only provide the necessary parts relevant to the discussion. For details, see the above references.

elements in Korean (see Yang 2008 for arguments for this position in detail). Thus T here is just an EPP feature holder. As one sample, the verbal complex *an manna-ass-ta* can be derived as in the following manner: through V movement up to Mood via Asp, this verbal complex is formed; the negation *an* then gets cliticized to the verbal complex in Mood, thereby forming *an manna-ass-ta*:

(40′) a. C--Top--Foc--T--v--Neg -- Mood -- Asp -- V
b. an -ta -ass manna- => verb raising
c. manna-ass-ta => *an* cliticization
d. an manna-ass-ta

Note also that if the negation *an* is a head, the ill-formed **manna-ass-ta-an* will be wrongly derived, hence it is assumed to be placed in Spec NegP. So the Neg head is only featurally filled here.

In the case of verb repetition construction, the verb *manna-* may be further copied into a higher head in v and end up in the focus *-ki* head to derive *manna-ki-nun*. Also, see the relevant illustrations below.

For the purpose of illustration, let us now consider the following sample examples displaying free word order variation:

(41) a. na-nun amwuto an manna-ki-nun an manna-ass-ta. (=31a)
I-Top anyone not meet-KI-Top not meet-Past-Dec
b. na-nun amwuto an manna-ass-ta an manna-ki-nun. (=34a)
I-Top anyone not meet-Past-Dec not meet-KI-Top

Derivations of the example in (41a) are roughly offered under SVO hypothesis associated with the head-initial structure below, with details omitted.

(42) a. amwuto manna- ~~amwuto~~
b. manna-ess-ta [amwuto [~~manna-~~ ~~amwuto~~]]
c. [NegP an [MP manna-ess-ta amwuto]] (*an* in Spec NegP)
d. [NegP amwuto [Neg′ an [manna-ess-ta ~~amwuto~~]]]
(*an*-cliticization)

e. [vP na-nun [NegP amwuto [Neg′ an [manna-ess-ta
~~amwuto~~]]]] (verb repetition)
f. [Foc an-manna-ki-nun [vP na-nun [amwuto
[an [manna-ess-ta ~~amwuto~~]]]]]
g. [FocP amwuto [Foc an-manna-ki-nun [vP na-nun [[~~amwuto~~
[an [manna-ess-ta ~~amwuto~~]]]]]]]
h. [TopP na-nun [FocP amwuto [Foc an-manna-ki-nun
[vP ~~na-nun~~ [~~amwuto~~ [an [manna-ess-ta ~~amwuto~~]]]]]]]

The verb merges with its object in the head-complement order, with the object raised to Spec VP for Case reasons, in (42a); the verb gets inflected through V-to-Asp-to-M movement in (42b); the NPI moves to a higher Spec NegP via Agree with the neg *an* in (42c,d); after the merge of the subject in (42e), the negative verb resulting from cliticization of *an* to the verb repeats itself by moving to the Foc head headed by *-ki* in (42f); subsequent movement of the NPI to Spec FocP in (42g) and subject movement to Spec TopP eventually yield the order in (41a) (see Lee 2008b for more discussion of the verb repetition construction in question).

On the other hand, (41b) can be derived in the following manner:

(43) a. [Foc an-manna-ki-nun [vP na-nun [NegP amwuto
[an [manna-ess-ta ~~amwuto~~]]]] (=42f) => Pied-piping
b. [FocP [NegP amwuto an manna-ess-ta][Foc an-manna-ki-nun
[vP na-nun ~~[NegP amwuto [an [manna-ess-ta]]]]]]
c. [TopP na-nun [FocP [NegP amwuto an manna-ess-ta]
[Foc an-manna-ki-nun [~~na-nun [amwuto [an [manna-ess-ta]]]]]]]

At the stage of (42f), repeated in (43a), the whole NegP comprising *amwuto an manna-ess-ta* pied-pipes to Spec FocP headed by Foc filled with *an-manna-ki-nun*, as seen in (43b); subsequent movement of the subject to TopP ultimately yields the order in (41b). Thus under the current analysis negative agreement takes place at the stage of (42d).

We thus obtained empirical evidence that allows one or more ways to satisfy the EPP (Extended Projection Principle) feature, here, on the Foc head,

either by NPI movement to Spec FocP as in (42g) or by Pied-piping as in (43b). This explains free word order variation in (41a,b), which constitutes true optionality (see Richards 2008, Lee 2012 for relevant discussions in detail). Consequently, the SVO hypothesis turns out to be appropriate for Korean.

7.2. Negation constructions

First, I offer derivations of the examples of SN as given in (44a,b) under the SVO hypothesis:

(44) a. na-nun amwuto an manna-ass-ta.
I-Top anyone not meet-Past-Dec
'I did not meet anyone.'
b. na-nun an manna-ass-ta amwuto.
I-Top not meet-Past-Dec anyone
'I did not meet anyone.'

The derivations for (44a) are provided below:

(45) a. [VP manna- amwuto]
b. [VP amwuto [manna- ~~amwuto~~]]
c. [MP -ta [-ess [VP amwuto [manna-]]]]
d. [MP manna-ess-ta [amwuto ~~[manna-]~~]]
e. [NegP an [manna-ess-ta [amwuto]]] (*an*-cliticization)
f. [NegP amwuto [an-manna-ess-ta]]
g. [na-nun [amwuto [an-manna-ess-ta]]]

The derivations for (44b) are provided below:

(46) a. [VP manna- amwuto]
b. [VP amwuto [manna- ~~amwuto~~]]
c. [MP -ta [-ess [VP amwuto [manna- ~~amwuto~~]]]]
d. [MP manna-ess-ta [amwuto ~~[manna-]~~]]
e. [NegP an [manna-ess-ta [amwuto]]] (*an*-cliticization)

f. [NegP [an-manna-ess-ta] [amwuto]]
g. [na-nun [an-manna-ess-ta] [amwuto]]

In both cases the neg *an* c-commands the NPI and thus agrees with it.

Next, I offer derivations of the examples of LN as given in (13) and (16a,b), both repeated below, under the SVO hypothesis:

(13) na-nun amwuto manna-ci anh-ass-ta. (LN)
I-Top anyone meet-CI not-Past-Dec
'I did not meet anyone.'

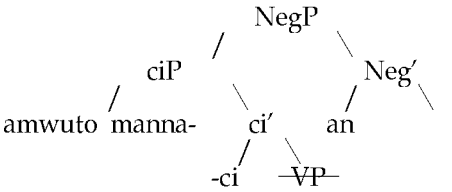
(16) a. *na-nun manna-ci amwuto anh-ass-ta.
I-Top meet-CI anyone not-Past-Dec
b. *na-nun manna-ci Cheli-to anh-ass-ta.
I-Top meet-CI C.-also not-Past-Dec

The derivations for (13) are provided below, with some morpho- phonological adjustments involved:

(47) a. [VP manna- amwuto]
b. [VP amwuto [manna- ~~amwuto~~]]
c. -ci [VP amwuto [manna- ~~amwuto~~]]
d. [-ciP [VP amwuto [manna-]] -ci ~~[VP amwuto [manna- amwuto]]]~~ (*ha*-support)
e. [-ta [-ass [ha- [amwuto [manna-ci]]]]]
f. h-ass-ta [amwuto [manna-ci]]
g. [NegP an [h-ass-ta [[amwuto [manna-ci]]]]] (*an*-cliticization)
h. [NegP [[amwuto [manna-ci]] [Neg' an h-ass-ta ~~[[amwuto [manna-ci]]]~~]]]
i. na-nun [[[amwuto [manna-ci]] [NegP anh-ass-ta]]]

In (47g), the neg *an* c-commands (in an extended sense of m-command) *-ci* as well as the NPI within the *ci*P, and there is no intervention effect triggered. This is shown in the relevant portion provided below:

(48)

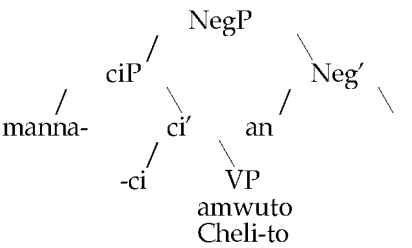


The derivations for (16) are provided below:

(49) a. [VP manna- amwuto]
b. -ci [VP manna- amwuto]
c. [-ciP manna-ci [VP ~~manna-~~ amwuto]]]]
d. [-ta [-ess [ha- [manna-ci [amwuto]]]]]
e. ha-ess-ta [manna-ci [amwuto]]
f. [NegP an [ha-ess-ta [-ciP manna-ci [VP amwuto]]]]
(*an*-cliticization)
g. [NegP [manna-ci [amwuto]] [Neg′ an-ha-ess-ta
~~[manna-ci amwuto]~~]]
h. na-nun [[manna-ci [amwuto]] [an-ha-ess-ta]]

In (49f), the neg *an* c-commands the NPI as well as *-ci*, in which case only *-ci* is located in Spec *ci*P, while the NPI is in its original place. This is shown in the relevant portion provided below:

(50)



Under the current analysis, the structural difference between (48) and (50) described above should be responsible for the contrast between (13) and (16). Since the NPI can be replaced by *Cheli-to* in (50), the ungrammaticality of (16a) should not simply come from the failure of NPI licensing. To deal with this

matter first, it can be observed that the object NPI (or *Cheli-to*) has never been in a Case licensing position, for example, Spec VP, in (16)--it had been in the original position (see (49f)) and the VP containing it has moved to Spec NegP (see (49g)). In this connection, I attribute the ungrammaticality of (16a,b) to the reasons associated with Case licensing. On the other hand, this problem does not arise in (45, 46) as well as (42). Thus it should be possible that in (48) the neg *an* agrees with the NPI as well as *-ci*. This is plausible because the Agree relation in question takes place under the same Spec-head configuration. Since both the NPI and *-ci* are within the *ci*P, there occurs no intervention effect here. In (50), however, the NPI and *-ci* are in different domains, so the intervention effect can be expected if other reasons like Case are excluded.

Finally, I close the discussion by considering the following RDC:

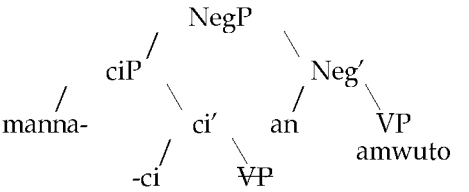
(51) na-nun manna-ci anh-ass-ta amwuto.
I-Top meet-CI not-Past-Dec anyone
'I did not meet anyone.'

The derivations for (51) are provided below:

(52) a. [VP manna- amwuto]
b. [VP amwuto [manna- ~~amwuto~~]]
c. -ci [VP amwuto [manna- ~~amwuto~~]]
d. [-ciP [manna-ci [VP amwuto [~~manna- amwuto~~]]]]
e. [ha- [manna-ci [VP amwuto]]]
f. [VP amwuto [ha- [manna-ci [VP ~~amwuto~~]]]]
g. -ta [-ess [VP amwuto [ha- [manna-ci [VP ~~amwuto~~]]]]]
h. [M ha-ess-ta [~~-ess~~ [VP amwuto [~~ha-~~ [-ciP manna-ci [VP ~~amwuto~~]]]]]
i. [NegP an [ha-ess-ta [VP amwuto [~~ha-~~ [-ciP manna-ci]]]]]
(*an*-cliticization)
j. [NegP [-ciP manna-ci] [an-ha-ess-ta [VP amwuto [~~ha-~~ [~~-ciP manna-ci~~]]]]]
k. na-nun [[manna-ci] [an-ha-ess-ta [amwuto]]]

In (52j), the neg *an* c-commands the NPI, and it also c-commands (in an extended sense of m-command) *-ci* within Spec *ci*P. This is shown in the relevant portion provided below:

(53)



It has so far been shown that the SVO hypothesis correctly yields the appropriate structures that can account for negative agreement in both SN and LN constructions. Each movement in the derivations illustrated so far can be motivated by certain features associated with EPP, Neg, Case, Foc, Top, selectional properties, and the like, not fully elaborated here, though.[8)]

8. Conclusion

In this paper, I observed that there is negative agreement between the neg *an(h)* and the *-ci* element that appears in negation constructions. I also observed that there is negative agreement between the neg *an(h)* and the NPI. In dealing with this negative agreement, I argued that the SVO hypothesis should be preferred over the traditional SOV hypothesis. Despite some putative criticism of the derivations offered in the examples under the head-initial structure, especially, concerning the relevant driving force or features for various movements involved in the derivations, which remains for further study, the bottom line is that the negation constructions discussed in this paper cannot be properly derived under the SOV hypothesis, but they are successfully derivable

8) In deriving the word order for Korean under SVO hypothesis, Koopman (2005) resorts to Sportiche's (1988) Principle of Locality of Selection (PLS), which states that selection must be satisfied in a strictly local relation, and thus, heads select for complements and impose restrictions on their specifiers as well. Thus, under the PLS analysis (Koopman 2005:606), for example, the whole TP is allowed to move to Spec CP, an instance of specifier selection, which is attributed to the EPP feature in C.

under the SVO hypothesis. Given this success of the underlying head-initial structure for Korean, the head parameter can now be eliminated from the computation to reduce computational complexity in line with recent minimalism (Chomsky 2000, 2001).

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