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Abstract: Is it possible to map pragmatic or discourse-oriented features onto the syntax level? The Korean topic marker -(n)un has a contrastive reading that induces conventional implicature, and is closely associated with a modal morpheme that can be regarded as a kind of agreement with evidentials. This paper attempts to represent such pragmatic features (implicature and evidentiality) as being involved in the topic-construction at the syntax level. To accomplish this, the paper introduces a Speech Act Projection (SAP), whose head encodes illocutionary force, and an Evidentiality Projection (EvidP), which is headed by a modal morpheme or evidential marker. The conventional implicature is mapped by means of the adjunction of a null operator to the EvidP. Finally, this operator movement provides evidence for the unavailability of the marker -(n)un in some clausal types.

1.0 INTRODUCTION

Domains such as speech acts, evidentiality, and sentience have generally been thought of only as pragmatic and discourse-oriented and not directly represented in the syntax. However, there have been recent proposals by a number of scholars to map these pragmatic or discourse features onto the syntax level. Specifically, Rivero (1994), Uriagereka (1995), Rizzi (1997), Ambar (1999), and Cinque (1999) have argued that there is a structural component, Speech Act Projection (SAP), whose head encodes illocutionary force and which is at the top of the clausal structure. Languages such as Japanese, Korean, Turkish, and Burmese have a sentence particle or morpheme to indicate whether the sentence is a declarative or interrogative. According to Speas and Tenny (2003), this particle or morpheme functions as an overt head of the SAP in these languages. On the other hand, languages without such an illocutionary force morpheme, like English, have an implicit head that projects the SAP.

Based on cross-linguistic observations, Cinque (1999) proposed a functional projection for

evidentiality which positions below the SAP, i.e., an Evidentiality Projection. Evidentiality is a grammatical category that indicates the source of information for an utterance and the degree of reliability the speaker assigns to it. This category might be explicit or implicit. Korean has explicit evidential morphemes (*-tay*, *-te*, and *-e*) which function as overt heads of EvidP.

Based on Cinque's proposal, Speas and Tenny (2003) and Tenny (2006) have argued that a pragmatic domain such as sentience (point of view) can be represented within a framework for the syntax of sentience including sentience roles (point of view roles), functional projections relating to sentience, and morphosyntactic features encoding sentience properties. Speas (2004) also claimed that "a uniform account of the constraints on the grammaticalization of pragmatic notions requires a framework in which there are syntactic projections bearing pragmatically-relevant features" (p.255).

In this study, I attempt a similar analysis, i.e., employing SAP and EvidP, for the pragmatic features of Korean topic-constructions. The SAP rests on the assumption that "every sentence has one and only one speech act or illocutionary force, with an abstract structure that constrains what can be coindexed with the seat of knowledge, but gives no other specific information about whether the speech act is telling, a warning, a report, etc" (S&T 2003: 21). Under this assumption, it is possible to assert that every Korean topic-construction also has its own illocutionary force.

It has been argued that in Korean, the availability of the topic marker -(n)un within a clause is in close connection with modality. According to Hong (2005), the -(n)un-marked NP occurs only in subordinate or adjunct and relative clauses in which modal morphemes are overtly realized. At the same time, this fact means that the -(n)un-marked NP can always occur in a

The marker -(n)un is post-nominal and the -(n)un-marked NP functions as Topic in the sentence. The marker's form, -un/nun, depends on its phonological environment: -un occurs after a consonant while -nun occurs after a vowel.

matrix clause, since a modal morpheme must be realized in a matrix clause. This property of topic-constructions suggests that it is possible to represent them in terms of EvidP structure. We can find common ground between evidentiality and modality by observing that both of the particles indicating such categories are used to express a speaker's psychological attitude or judgment concerning the truth of the proposition which (s)he utters. As Rooryck (2001a, b) pointed out, "modal judgments are generally made based on some type of evidence, and one can often infer the speaker's modal judgment from the type of information source indicated" (cited in Speas 2008: 951). In support of Rooryck's claim, I see an identity between evidential morphemes and modal morphemes. Hence, the modal morpheme in the syntactic representation of the topic-construction will operate as a head which projects EvidP.

The -(n)un-marked NP has previously been analyzed as usually having three different readings: thematic (pure topic), contrastive topic, and contrastive focus. However, I conflate the categories of interpretation for the topicalized NP into just two—thematic and contrastive—by combining the contrastive topic and contrastive focus -(n)un as a single item. The NP attached to the thematic -(n)un functions as a theme within the sentence. On the other hand, the contrastive -(n)un induces presupposition and scalar implicature. This study shows how these pragmatic features are mapped onto the syntax level by means of SAP and EvidP.

The paper is organized as follows: section 2.0 surveys previous work on Korean topic-constructions in syntax and semantics; section 3.0 presents the data used for this study; section 4.0 introduces the theoretical framework of SAP and EvidP developed by Speas and Tenny (2003); section 5.0 illustrates the syntactic representations for pragmatic features of topic-constructions and the unavailability of the contrastive -(n)un in non-matrix and relative clauses without a modal morpheme; section 6.0 concludes the paper.

2.0 PREVIOUS LITERATURE

This section surveys two approaches to the -(n)un-marked NP which have been previously proposed: the syntax of topic-constructions and the semantics of topic-constructions.

2.1 The Syntax of Korean Topic-Constructions: Transformational Grammar

In previous syntactic works, the topic marker -(n)un has been generally analyzed in terms of two hypotheses: 1) the -(n)un-marked NP is generated in sentence-medial position and moves to sentence-initial position; 2) the -(n)un-marked NP is base-generated in sentence-initial position. The former is called the Topic Movement Hypothesis (TMH), and the latter is called Base-generation Hypothesis (BGH)

2.1.1 Topic Movement Hypothesis

The following examples show the analysis of topic-constructions by means of TMH, taken from Hong (2004).

(1) Ku chayk-un John-i il-ess-ta.
The book-TOP John-NOM read-PAST-DECL

'As for the book, John read it.'

(2) a. DS: [IP John-i [ku chayk-un] il-ess-ta] b. SS: [IP [ku chayk_i-un] [IP John-i t_i il-ess-ta] (Hong 2004: 11)

As shown in (2), the NP ku chayk with the topic marker -(n)un is generated in sentence-medial position, and then moves to the specifier position of IP. Hong (2005) points out a weakness in such a movement analysis by producing the examples in (3). In Korean, case markers for a subject and object always come after an NP (i.e., argument). Of course, sometimes the case marker can be dropped. However, Hong claims that a case marker cannot come after an argument marked with -(n)un, as in the following examples:

(3) a. Chelsu-nun (*i) chayk-ul sa-ss-ta.

Chelsu-TOP (*NOM) book-ACC buy-PAST-DECL

'Chelsu bought a book.'

b. Yenghuy-ka Chelsu-nun (*ul) mana-ss-ta.

Yenghuy-NOM Chelsu-TOP (*ACC) meet-PAST-DECL

'Yenghuy met Chelsu (but not others).' (Hong 2005: 397)

As demonstrated in (3), a case marker (Nominative or Accusative) cannot come after a NP marked with -(n)un. Hong's (2005) schema of movement analysis is as follows:

(4)
$$\lceil_{CP} \text{ XP-(n)un(i)} \dots \lceil_{IP} \dots \text{t(i)} \dots \rceil \dots \rceil$$
 (Movement analysis)

As in (4), under movement analysis *Chelsu-nun* is assigned nominative case from the specifier position of IP and the case marker (i) is realized after *Chelsu-nun*. At S-structure, *Chelsu-nun-i* moves to the specifier position of CP. However, as shown in (3), the ungrammaticality of these sentences cannot be explained by means of such analysis.

2.1.2 Base-generation Hypothesis

Kang (1986) states that Korean topic-constructions are similar to English left dislocation constructions. Kang argues that the -(n)un-marked NP is base-generated under the Topic node, and that an empty resumptive pronoun, which is co-indexed with the topicalized NP, occurs in its IP-internal position (cited in Hong 2004: 11). Under this hypothesis, the S-structure and D-structure of (1) are identical, as shown in (5a) and (5b), respectively.

Hong (2005) supports this hypothesis by presenting the following evidence:

(6)
$$[CP XP-(n)un_i ... [IP ... ([e]_i) ...] ...]$$
 (base-generation analysis)²

The XP - (n)un is base-generated in the specifier position of CP, which is an A-bar position, i.e.,

² [e]_i is a kind of pronoun that is co-indexed with XP-(nun)_i and is optional.

the position where a NP cannot be assigned a case. This approach provides critical evidence that

XP - (n)un cannot take a case marker, as shown in example (3a).

The works referenced so far have tried to describe and explain only the syntactic features

(surface form) of topic-constructions. These analyses did not describe the pragmatic or discourse

features of Korean topicalization, like presupposition, implicature, and evidentiality. In fact,

these pragmatic or discourse features should be taken into consideration in explaining the

topicalization construction, and will be presented in the next subsection.

2.2 The Semantics of Korean Topic-Constructions

There have been a number of different suggestions about the semantic interpretation of

the -(n)un-marked NP. This section summarizes some previous research into the semantics and

the pragmatic properties of the marker -(n)un.

Han (1998) argues that a -(n)un-marked NP produces three different readings, i.e. a

topic reading, a contrastive topic reading, and a contrastive focus reading, and that the particular

reading which the -(n)un marker receives is determined by the syntactic environment in which it

occurs. Han's (1998) examples are given below:

 $(7) [_{IP} John-un [_{VP} Mary-lul]$ coaha-n-ta.]]

> John-TOP Mary-ACC

like-PRES-DECL

'John likes Mary.' [Topic reading]

'John likes Mary, (Frank likes Susan, Peter likes Laura.) [Contrastive topic reading]

Presupposition: some x $(x \neq John)$

John-NOM

_{VP} Mary-nun coaha-n-ta.]]

like-PRES-DECL Mary-CF

'John likes Mary, (but not others) [Contrastive focus reading]

Presupposition: some x ($x\neq Mary$)

(8) [_{IP} John-i

Implicature: all x $[(x \neq Mary) \rightarrow \sim like(John,x)]$

(Han 1998: 98)

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In (7), the sentence has -un marked on the subject. The NP *John-un* can be interpreted as having either a topic reading or a contrastive reading. With a topic reading, the sentence is interpreted to mean only *John likes Mary*. With a contrastive topic reading, it presupposes a set of alternatives (possible topics). In other words, we can suppose that there are other people besides *John* in the discourse domain (e.g., [John, Frank, Peter]) and the entity denoted by *John* functions as one topic among possible alternatives. On the other hand, in (8) the marker -nun is attached to the object *Mary*. Like (7), it also presupposes that there are other people besides *Mary* (picked out by -nun) in the discourse domain (e.g., [Mary, Sue, Yenghuy]) and implicates that *John* dislikes all the other members in that group apart from *Mary*.

Looking at the syntactic environment in which the -(n)un-marked NP occurs, we can see that each reading is associated with a different syntactic environment. More obviously, Han (1998) states that if a -(n)un-marked NP occurs outside of VP at S-structure, it functions as a sentence topic evoking a topic or a contrastive topic reading, as shown in (7). That is, it can be said that the topic and contrastive topic -(n)un have the same syntactic constraint, and that they only differ in the pragmatic constraint that the contrastive topic presupposes a set of alternative possible topics. In contrast, in the case of the contrastive focus reading, the -(n)un-marked NP occurs inside of VP at S-structure. At this point, the -(n)un-marked NP does not operate as a sentence topic, but this NP has exhaustive focus (and can therefore get stressed), as shown in (8).

The -(n)un-marked NPs can thus be classified as three different types according to the syntactic environment in which they occur. However, I propose conflating the semantic interpretation of the -(n)un-marked NP into only two different meanings: topic (or thematic) and contrastive, since it is possible to analyze both contrastive topic NP and contrastive focus NP as

triggering presupposition and implicature, more specifically, scalar implicature.³ For the sake of explanation, I return to Han's (1998) example about contrastive topic -(n)un, originally shown in (7) above.

(9) [_{IP} John-un [_{VP} Mary-lul coaha-n-ta.]]
John-TOP Mary-ACC like-PRES-DECL

'John likes Mary.' (Chelsu likes Susan, Minsu likes Laura.)

Presupposition: some x $(x \neq John)$

Implicature: It is possible that Chelsu and Minsu do not like Mary.

In (9), the sentence involving contrastive *–un* presupposes a particular set of scalar alternatives. That is, we can suppose that the discourse domain is composed of three entities (e.g., John, Chelsu, Minsu), which are possible alternatives for a topic. Sentence (9) can implicate that Chelsu and Minsu do not like Mary (only John likes Mary). Except for John, other members (Chelsu and Minsu) become scalar alternatives, and they also operate as scalar implicature. In this case, the following implicational scale is formed: <others (Chelsu and Minsu), John>.

Levinson (1983) states that "if a speaker asserts that a lower or weaker point on a scale obtains, then he implicates that a higher or stronger point does not obtain." (p. 133). Thus, if a speaker utters sentence (9), he or she implicates that Chelsu and Minsu do not like Mary. The scalar alternative entails the original assertion, but not vice versa. That is, the original assertion must not entail the scalar alternatives. Therefore, the semantic interpretation of sentence (9) can be captured in terms of a scalar implicature, and this kind of implicature is conventional.⁴

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³ Levinson (1983) states the following about scalar implicature: "A linguistic scale consists of a set of linguistic alternates, or contrastive expressions of the same grammatical category, which can be arranged in a linear order by degree of informativeness or semantic strength. Such a scale will have the general form of an ordered set (indicated by angled brackets) of linguistic expression or scalar predicates, e1, e2, e3 ... en in: <e1, e2, e3, ... en>" (p. 133).

⁴ According to Levinson (1983), "conventional implicatures are non-truth-conditional inferences that are not derived from superordinate pragmatic principles like the maxims, but are simply attached by convention to particular lexical items or expressions . . . conventional implicatures will be non-cancellable because they do not rely on defeasible assumptions about the nature of the context; they will be detachable because they depend on the

For the sake of further understanding conventional scalar implicature induced by -(n)un, I take the following example from Lee (2006).

(10) A: Do you have children?
B: Adul–un iss-e
Son-CT be-DECL

'I have sons.'

(Lee 2006:159)

Lee (2006) argues that whenever the contrastive -(n)un appears, it always induce scalar implicature, and that it can thus be considered to be a conventional implicature. Lee notes that when B answers A's question as in (10), B's answer is exhaustive, but still can have a conversational implicature⁵ of 'but I don't have daughters' from the context. The contrastive -(n)un by default evokes a scalar implicature, and is thus conventional. Lee (2006) further comments as follows:

A conventional implicature may not be an exception to this kind of roundabout situation. The implicature of B may initially be scalar with something like "But I don't have daughters and I am not totally satisfied with this", tending to give more weight to 'daughters' on a pragmatically evoked scale. In a boy preference society, B's answer, "I have daughters-CT" may evoke a reversed scale of {daughter < son}.

(p.159)

To sum up, the *(n)un*-marked NP basically has three different readings: a topic (or thematic), a contrastive topic, and a contrastive focus reading. They are, however, categorized as two types in this paper: topic and contrastive, since both contrastive topic and contrastive focus

particular linguistic items used; they will be calculated using pragmatic principles and contextual knowledge, but rather given by convention; they may be expected therefore to have a relatively determinate content or meaning; and there will be no expectation of a universal tendency for languages to associate the same conventional implicatures with expressions with certain truth conditions" (p. 127-8).

⁵ Levinson (1983) states that "the concept of conversational implicature (simply referred to implicature) offers some significant functional explanations of linguistic facts, and the notion provides some explicit account of how it is possible to mean (in some general sense) more than what is actually 'said'. For example:

⁽¹⁾ A: Can you tell me the time?

B: Well, the milkman has come.

In (1) B's answer can be paraphrased like this: the milkman came at some time prior to the time of speaking. Yet, by means of the notion of implicature, B's answer effectively conveys that 'No I don't know the exact time of the present moment, but I can provide some information from which you may be able to deduce the approximate time, namely the milkman has come" (Levinson 1983: 97-98)

can be analyzed as carrying the same pragmatic properties: presupposition and scalar implicature.

3.0 THE DATA

This section presents the data analyzed in this study, -(n)un-marked NPs occurring in two different clausal types: a non-matrix clause and a relative clause.

3.1 The –(n)un-marked NP in Non-Matrix Clauses

This section presents the unavailability of -(n)un-marked NPs in non-matrix clauses without a modal morpheme. Whitman (1989) argues that in Korean the topic marker cannot appear in a non-matrix clause in which a modal marker is not realized. Whitman's examples are given in (11):

- (11) a. [CP Kaul-i/*-un o-nun soli-ga] tuli-n-ta Fall-NOM/*TOP come-ADN sound-NOM hear-PRES-DECL
 - 'We can hear that fall is coming', or 'We can hear the sound of fall coming' (if treating this as a relative clause).
 - b. [CP Ney cwucang-i/*-un ol-ass-um-lul] wuli-nun nacungeya your claim-NOM/*TOP right-PAST-N-ACC we-TOP later

kktal-ass-ta.

'We realized that your claim was right.'

c. [CP Kyeul-i/*-un o-**myen**] pom-i melci-an-ta winter-NOM/*TOP comes-if spring-NOM far-NEG-DECL

'If winter is coming, spring is not far away.'

As shown in (11), the topic marker cannot be available in non-matrix clauses that do not have a modal morpheme. These examples thus suggest that the topic marker is closely associated to modality. Unlike Whitman (1989), I will treat the structure in (11a) as a relative clause: [NP [kaul-i/*-un o-nun] soli-ga] tuli-n-ta, where *-nun* is an adnominal marker and *soli* is a NP modified by a relative clause.

Similarly, Hong (2005) claims that if modality markers such as ta, ra, and chi are present in subordinate clauses, the marker -(n)un can occur in the non-matrix clause:

- (12) a. Chelsu-ga [CP Yenghuy-ga/-nun yeppu-ta-ko] sengkakha-n-ta Chelsu-NOM Yenghuy-NOM/TOP pretty-MOD-COMP think-Pres-DECL
 - 'Chelsu thinks that Yenghuy is pretty.'
 - b. Chelsu-ga [CP Yenghuy-ga/-nun chencay-**ra**-ko] sengkakha-n-ta Chelsu-NOM Yenghuy-NOM/TOP genius-MOD-COMP think-Pres-DECL
 - 'Chelsu thinks that Yenghuy is a genius.'
 - c. Chelsu-nun [CP Yenghuy-ga i chayk-ul/un il-ess-chi-rako] Chelsu-TOP Yenghuy-NOM this book-ACC/TOP read-PAST-MOD-COMP malhay-ss-ta.
 say-PAST-DECL

The sentences in (12a-c) demonstrate that modal morphemes such as ta, ra, chi are associated with the occurrence of the marker -(n)un.

3.2 The –(n)un-marked NP in Adjunct Clauses

This section discusses -(n)un-marked NPs which occur in adjunct clauses such as if-, when-, and because-clauses. I will treat the sentence in (13a) (repeated from 11c) as a complex sentence which is composed of a matrix clause and an adjunct clause.

b. [CP Chelsu-nun pay-ka/*nun apa-se] ilccik cip-ulo ka-ss-ta. Chelsu-TOP stomach-NOM/*TOP sick-because early home-to go-PAST-DECL

'Chelsu went home early because he had a stomachache.'

^{&#}x27;Chelsu said that Yenghuy read this book.'

^{&#}x27;If winter is coming, spring is not far away.'

c. [CP Chelsu-ka Yenghuy-lul/*nun kkyean-cha] salam-tul-i Chelsu-NOM Yenghuy-ACC/*TOP hug-when people-PL-NOM wungsengkeliki sicakhay-ss-ta. murmur start-PAST-DECL

'When Chelsu hugged Yenghuy, people started to murmur.'

The sentences in (13a-c) also provide evidence for the correlation between the marker -(n)un and modality.

3.3 The -(n)un-marked NP in Relative Clauses

This section presents the unavailability of the -(n)un-marked NP in relative clauses without a modal morpheme. Yang (1994) claims that a contrastive -(n)un can appear in a relative clause, and that there is no relationship between the contrastive marker and a modal marker, since a modal marker cannot occur in a relative clause, as shown in (14):

(14) Chelsu-ga [NP [RC ku-chayk-**un** pa-n] s anay-lul]] al-ko-iss-ta Chelsu-NOM that book-TOP sell-COMP man-ACC know-DECL

'Chelsu knows the man that sold that book.'

However, Hong (2005) argues that the marker -(n)un in the structure above is involved in a matrix clause, not a relative clause, to support the relation of -(n)un to modality:

(15) Chelsu-ga [ku-chayk-**un**]_i [RC [e]_i pa-nsanay-lul]] al-ko-iss-ta. Hong lends support to the above analysis by inserting morphemes that are found only in relative clauses (*-eke* 'to'or *-lopute* 'from') in front of *ku-chayk-un*:

(16) *? Chelsu-ga [NP [RC Yenghuy-eke ku chayk-un pa-n] sanye-lul]] Chelsu-NOM Yenghuy-DAT that book-TOP sell-COMP man-ACC al-ko iss-ta. know-DECL

'Chelsu knows the man that sold that book to Yenghuy.'

The sentence in (16) becomes ungrammatical when Yenghuy-eke is inserted in front of ku chayk-

un. Therefore, we can assert that the -(n)un-marked NP is included not in the relative clause, but in the matrix clause with modality.

To summarize this section, the appearance of the topic marker correlates with modality. This study proposes that the modal morpheme functions as an overt head of EvidP. For the relation between evidentiality and modality, Chung (2005) states that Korean evidentials are homophonous with aspect and mood morphemes (modal morphemes). Also, both evidentials and modals express a speaker's perceptual situation and attitude. Thus, we can find some similar properties between the two morphemes. Furthermore, contrastive –(n)un adds evidential meaning to the modal morpheme, since the contrastive marker conventionally and basically evokes implicature.

4.0 THEORETICAL FRAMEWORK

This section illustrates the theoretical framework used for representing the pragmatic features of topic-constructions in Korean.

4.1 Syntactic Projections for Pragmatic Features

I begin by presenting Rizzi's (1997) syntactic description of a topic-focus system which occurs in the left periphery (pre-IP) of the clause, and then illustrate the syntactic computation of evidentiality, presenting Cinque's (1999) proposal.

4.1.1 Speech Act (or Force) Projection (SAP)

Rizzi (1997) argues that much more than a single X-bar schema constitutes the left periphery of the clause, similar to dissolving IP into a series of functional projections (Agr, T, Asp). He postulates an articulated array of X-bar projections which constitute a complementizer system: the articulated CP.

According to Rizzi (1997), "complementizers express the fact that a sentence is a question,

a declarative, an exclamative, a relative, a comparative, an adverbial of a certain kind, etc." (p. 283). Rizzi follows Chomsky's terminology for naming this information: specification of Force (Chomsky 1995). Rizzi notes that Force is expressed in three ways: 1) by overt morphological encoding on the head (special C morphology for declaratives, questions, relatives, etc.); 2) by simply providing the structure to host an operator of the required kind; 3) by both means. In the case of Korean, there is an overt morpheme which encodes the type of speech act and operates as a head which projects a SAP.

Rizzi takes one example of topic construction in English (17a) and describes the syntactic representation for the topic system in (17b):

(17) a. Your book, you should give it to Paul (not to Bill) (Rizzi 1997:285)



A TopP is headed by Top⁰, which is a *functional head*, belonging to the complementizer system, i.e., the functional head Top⁰ projects its own X-bar schema. Rizzi's functional interpretation of the X-bar schema of TopP is as follows: "its specifier is the topic, and its complement is the comment. Top⁰ defines a kind of 'higher predication', a predication within the Comp system; its function is thus analogous to the function of AgrS within the IP system, which also configurationally connects a subject and a predicate" (Rizzi 1997: 286). Top⁰ is phonetically null in some languages such as English and Italian, but may be pronounced in other languages like Korean and Japanese. The post-nominal markers –(n)un and –wa in Korean and Japanese, respectively, can operates as a functional head of TopP.

In integrating the topic system (17b) into the Force phrase mentioned above, the structure of

pre-IP, i.e. the articulated CP, is as follows:

4.1.2 Evidentiality Projection

Some languages (e.g., Japanese, Korean, Turkish, Quechua, and Burmese) have morphemes or grammatical categories that encode the information source of an utterance. This encoding is called evidentiality. The information source of an uttered statement can be based on personal experience, direct (sensory) evidence, indirect evidence, and reported evidence (hearsay).

From his cross-linguistic observation of adverbs and verbal morphemes, Cinque (1999) drew the following universal hierarchy of functional projections.

(19) [Speech Act Mood [Evaluative Mood [Evidential Mood [Epistemological Mode]]]] (cited in Speas 2004: 259)

Mood marks discourse-related notions like speech act, speaker attitude, and evidence, while Mode marks modal notions such as possibility and necessity. Cinque supports this hierarchy by presenting evidence from languages such as Turkish, Una, Tauya, and Chinese.

Below I present some examples to illustrate the order of non-closing (agglutinating) suffixes in Korean, following Cinque (1999).

'Did you feel that he had been caught?' (Cinque 1999:53)

In the underlined complex verbal system in (20), -hi is a suffix marking passive voice; -ess is a suffix marking past tense; -keyss is a suffix marking epistemic (conjectural) modality; -sup is an addressee honorific suffix; -ti is an evidential mood suffix, which is used to recall a fact that a speaker has experienced before; and -kka is a suffix marking the speech act mood 'interrogative.'

Cinque shows that another class of suffixes may be inserted between evidential and speech act mood suffixes in the following examples. These suffixes carry a sense of surprise, and thus introduce a speaker's evaluation of the proposition. Cinque calls them evaluative mood suffixes.

(21) Ku say-ka cwuk-ess-keyss-kwun-a.

that bird-NOM die-PAST-EPISTEM-EVALUAT-DEC

'That bird must have died!'

(22) Minca-nun ttena-ss-te-kwun-yo.

Minca-TOP leave-PAST-EVID-EVALUAT-POLITE

'I noticed that Minca had left!'

As shown in (20)-(22), the relative order of Korean suffixes provides evidence for the hierarchy of functional heads in (19) and can be represented as follows:

(23)
$$Mood_{speech\ act} > Mood_{evaluative} > Mood_{evidential} > Modality > T(Past) > Voice (>V)$$

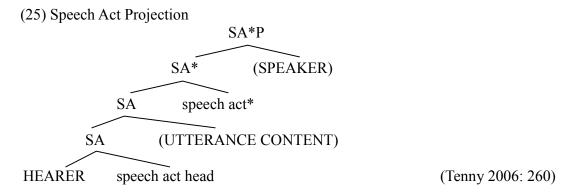
Cinque (1999:106) made an attempt to fit the adverbial phrases into the hierarchy of the functional heads in (23) as follows:

(24) The universal hierarchy of functional projections

Example (24) proposes that the hierarchies of adverbial specifiers and functional heads match in a systematic one-to-one fashion. In other words, the morpheme ordering in some head-final languages (like Korean) parallels the adverb ordering in some head-initial languages (like English). Cinque argues that "the entire array of functional heads (and projections) is available even where there is no overt morphology corresponding to the heads, as the respective specifiers are available" (Cinque 1999: 106).

4.2 Structural Representation of SAP and EvidP

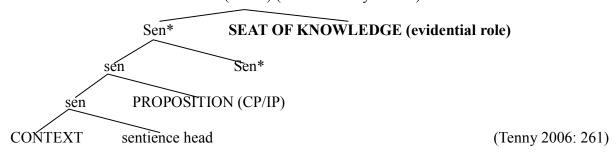
Based on the syntactic projections illustrated in 3.1.1 and 3.1.2, Speas and Tenny (2003) developed the projection of features relevant to the interpretation of speech acts. The tree diagrams in (25) and (26) are the structural representations for SAP and EvidP, respectively. These projections are briefly described in Tenny (2006):



The speaker, the hearer, and the utterance are all thematic arguments in this projection. The highest argument, the Speaker, is the agent of the speech act. The utterance content is the information conveyed by the speaker and the hearer represents the goal of the speech act head. Speas and Tenny (2003) claim that the basic structure in (25) can vary only in formal features of the head, where formal features include only a feature that is checked by head movement and another that is checked in a spec-head configuration.

(26) Evidentiality Projection

Sentience Phrase (sen*P) (=Evidentiality Phrase)



Tenny (2006) states that this phrase is the syntactic expansion of the 'utterance'. Intuitively, evidentiality relates a proposition with some sentient mind that evaluates the truth of the proposition based on some knowledge, evidence, or context known to this mind. This truth-evaluator is the third sentience role—the evidential role—and its locus is the specifier position of the projection" (p. 261).

5.0 ANALYSIS OF KOREAN TOPIC-CONSTRUCTIONS

This section suggests an analysis of Korean topic-constructions employing the syntactic projections illustrated in section 4.0.

5.1 Topic –(n)un and Contrastive –(n)un

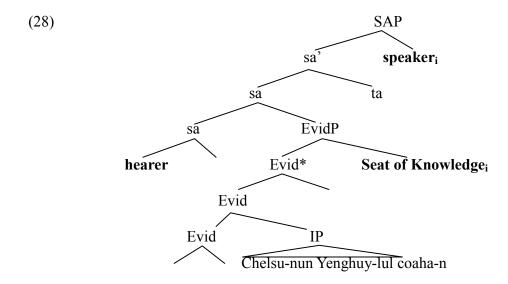
Let us now look at the syntactic representations of two types of topic constructions: one including a topic -(n)un and the other including a contrastive -(n)un. Sentence (27a) is an example of a topic reading:

(27) a. Chelsu-nun Yenghuy-lul coaha-n-ta. Chelsu-TOP Yenghuy-ACC like-PRES-DECL

'Chelsu likes Yenghuy.'

b. [SAP [speakeri] [hearer] [SA' [EvidP (SEAT OF KNOWLEDGEi) [Evid' [IP Chelsu-nun Yenghuy-lul coaha-n-ta]]]]].

Sentence (27a) has the syntactic representation given in (27b). In (27b) the EvidP below SAP has three arguments: the proposition IP, the context, and the seat of knowledge. The above structure also integrates the SAP and EvidP with three sentience roles: speaker, hearer and evidential anchor. The structure in (27b) can be represented by the tree diagram in (28):



In (28) the three bold-faced items indicate the discourse participants. In this structure, the speaker is co-indexed with the evidential role (seat of knowledge). That is, the information source for the proposition uttered is based on a speaker's personal experience. The speaker ccommands (or controls) the evidential argument. The feature specification of the speaker is [+disc. part, +sentient], and that of the seat of knowledge [+disc. part., +sentient].

Now I provide a syntactic description of a topic-construction in which a contrastive -(n)unoccurs, where the marker -(n)un triggers a scalar implicature. I follow Hara's (2006) analysis of the contrastive wa in Japanese.⁷

'Chelsu likes Mary (but not others)'

 $[_{SA'}[_{EvidP} \mathbf{OP_i} (seat of knowledge_i)]_{Evid'}[_{IP} \mathbf{t_i} Yenghuy-\mathbf{nun}]$ b. $[SAP (speaker_i)]$ Chelsu-ka coaha-n-ta]]]]. ↑

According to Tenny (2006), "the feature [+sentient] indicates that the entity referred to can have epistemic states" (p. 264).

Hara (2006) argues that implicature operator movement is involved in a Japanese topic-construction inducing a scalar implicature, and that this operator requires a variable, i.e. the entity for the attitude holder. The implicature operator thus adjoins to the evidential phrase to find an entity for its attitude holder.

For a syntactic representation of implicature, there exists a null operator which triggers scalar implicature. The implicature operator requires a variable, i.e. the truth evaluator (a sentient entity). This null opertor has an empty feature set [], which must be saturated by the feature [+sentient]. For this feature saturation, the operator ajoins to the local higher phrase, i.e. EvidP. The empty feature set of the null operator is saturated by [+sentient] of the seat of knowledge (an evidential argument).

5.2 The –(n)un-marked NP in Non-Matrix Clauses

This section illustrates the syntactic description of topic-constructions occurring in non-matrix clauses using the data presented in section 3.0, and provides evidence that the topic marker -(n)un cannot appear in a non-matrix clause in which a modal morpheme is not realized. In section 3.0 the marker -(n)un in (30) was classified as the thematic (topic), but I treat this as a contrastive marker, since it can also be analyzed as inducing a scalar implicature. Supposing the discourse domain [Chelsu's opinion, Yenghuy's opinion, your opinion], sentence (30) can implicate that apart from *your opinion*, other people's opinions were not correct. Therefore, we can expect that there is an implicature operator in (30).

'We later realized that your opinion was right.'

b.
$$[_{SAP}$$
 [the speaker $_{i}$] $[_{SA'}$ [$_{EvidP}$ $\mathbf{OP_{i}}$ [$_{Evid}$, [seat of knowledge $_{i}$] [$_{CP}$ [$_{IP}$ $\mathbf{t_{i}}$ Ney cwucang -*un ol-ass-um-lul]]]] wuli-nun nacungeya kktal-ass-ta]].

However, there is no modal marker to serve as a functional head projecting EvidP. Thus OP cannot find a sentient entity by means of an adjunction to EvidP. Consequently, this analysis

suggests that a contrastive -(n)un cannot be available in a non-matrix clause without a modal morpheme.

Let us now look at an analysis of topic constructions involved in a non-matrix clause with a modal morpheme (ta).

(31) a. Chelsu-ga [Yenghuy-ga/-nun yeppu-ta-ko]
Chelsu-NOM [CP Yenghuy-NOM/TOP pretty-M-COMP]
sengkakha-n-ta

think-PRES-DECL

'Chelsu thinks that Yenghuy is pretty.'

b. [SAP [the speaker_i] [EvidP **OP**_i [Evid', [seat of knowledge_i] [CP [IP **t**_i Yenghuy-nun yeppu-ta-ko] sengkankha-n-ta.

In (31) the modal morpheme *ta* functions as the head of EvidP. The null operator can adjoin to the EvidP to saturate a set of features. Here, the CP does not operate as a barrier to movement in Korean. This analysis also suggests that the contrastive –*nun* can be available in the clause in which a modal marker occurs.

5.3 The -(n)un-marked NP in Adjunct Clauses

This section explains why the contrastive -(n)un cannot occur in adjunct clauses such as *if-*, *when-*, and *because-*clauses.

'If winter is coming, spring is not far away.'

b. [AdjP Chelsu-nun pay-ka/*nun apa-se] ilccik cip-ulo Chelsu-TOP stomach-NOM/*TOP sick-because early home-to

ka-ss-ta. go-PAST-DECL

'Chelsu went home early because he had a stomachache.'

c. [AdjP Chelsu-ka Yenghuy-lul/*nun kkyean-cha] salam-tul-i Chelsu-NOM Yenghuy-ACC/*TOP hug-when people-PL-NOM wungsengkeliki sicakhay-ss-ta.
murmur start-PAST-DECL

'When Chelsu hugged Yenghuy, people started to murmur.'

The syntactic representation of (32a) is as follows:

(33) *[SAP [speaker] [SA, [EvidP **OP**_i [seat of knowledge]i [Evid, [AdjP **t**_i kyeul-*un o-myen] pom-i melci-an-ta]]]. ⁴

In (33) the movement of the null operator is blocked, since this movement violates an adjunct island constraint (adjuncts are islands). Under adjunct island constraint, no movement is possible out of an adjunct clause. Therefore, the unavailability of the contrastive -(n)un within adjunct clauses can be explained by means of the violation of this constraint. The structures in (32b) and (32c) illustrate the same case.

Furthermore, the modal morpheme is not realized in such adjunct clauses, and thus the OP cannot find a local EvidP to adjoin to. This automatically causes the adjunct island constraint.

5.4 The –(n)un-marked NP in Relative Clauses

This section illustrates why contrastive -(n)un cannot appear in a relative clause by means of implicature operator movement and its correlation to modality. An example is given below.

(34) Chelsu-ga ku-chayk-**un** pa-n sanay-lul al-ko-iss-ta Chelsu-NOM that book-TOP sell-ADN man-ACC know-DEC

'Chelsu knows the man that sold that book.'

First, if we suppose that contrastive -(n)un occurs within a relative clause, we can get a labeled bracketing like (35a), with a syntactic representation as in (35b).

(35) a. Chelsu-ga [NP [RC ku-chayk-un pa-n] sanay-lul]] al-ko-iss-ta

In (35b) the OP is extracted out of a complex NP and adjoins to the EvidP. This movement violates the Complex NP Constraint.⁸ The fundamental cause of the CNPC violation rests in the unrealization of a modal morpheme within the relative clause. That is, the OP could not adjoin to the local EvidP due to the absence of modality. This suggests that the contrastive -(n)un cannot occur within a relative clause without a modal morpheme.

Second, assuming that contrastive -(n)un occurs in the matrix clause, not in the relative clause, the structure is as follows:

$$(36) \ a. Chelsu-ga \ [ku-chayk-\textbf{un}]_j \quad [_{RC} \ [e]_i \ pa-n \ sanay-lul \]] \ al-ko-iss-ta.$$

b.
$$[_{SAP} [speaker]_i [_{SA}, [_{EvidP} \mathbf{OP_i} [seat of knowledge]_i [_{Evid}, [_{IP} \mathbf{t_i}]_{Chelsu-ga}]$$
 $[_{Ku-chayk-\mathbf{un}]_i} [_{RC} [e]_j pa-n sanay-lul]] al-ko-iss-ta]]]]].$

As shown in (36b), we can obtain a grammatical sentence under the assumption that the contrastive -(n)un is involved in the matrix clause,. The modal morpheme -ta (in the matrix clause) operates as a head which projects EvidP. Consequently, the OP can adjoin to the local EvidP, where the OP gets the sentient entity (from [seat of knowledge (evidential role)]). This analysis also tells us that the availability of contrastive -(n)un is associated with modality.

To sum up, the realization of modality in non-matrix clauses strongly supports the availability of contrastive -(n)un, while the CNPC violation of operator movement proves that contrastive -(n)un is included in the matrix clause, not in the relative clause.

⁸ Haegeman (1994) states the complex island constraint proposed by Ross (1967) as follows:

[&]quot;The movement out of a complex NP is blocked. Complex NPs are islands for movement. The constraint which bans movement out of a complex NP is referred to as the complex NP constraint." (p. 401) Thus, the following sentence is ungrammatical:

^{(1) *[}CP Who; did [IP Poirot make [NP the claim [CP that [IP he saw t; last week]]]]]?

6.0 CONCLUSION

This paper has illustrated how pragmatic-oriented domains such as speech acts, evidentials, and sentients can be mapped onto the syntax level in terms of the SAP and EvidP. By applying these syntactic projections to topic constructions and introducing an implicature operator, we can explain why the contrastive -(n)un cannot be acceptable in non-matrix and relative clauses where the modal morpheme is not realized.

Generally, the modal morpheme expresses a speaker's attitude toward the listener or his psychological attitude toward the propositional content. Also, considering the function of the marker -(n)un, it basically assigns meanings such as contrast, difference, focus, and distinction to the NP picked out by the marker. This phenomenon can be considered to be produced by a speaker's intention about how to convey the propositional content to the hearer. It seems that these facts provide some explanation for the relation of the contrastive marker to the modality of the situation.

In conclusion, by trying a syntactic approach to these pragmatic or discourse features, we find that the unavailability of the contrastive marker within some clausal types is due to syntactic constraints, not semantic constraints.

Abbreviations

TOP Topic Marker

NOM Nominative

PAST Past tense

DECL Declarative

ACC Accusative

PRES Present tense

CF Contrastive Focus Marker

CT Contrastive Topic Marker

ADN Adnominal Marker

N Nominal Marker

NEG Negation

MOD Modal morpheme

COMP Complementizer

PL Plural Marker

DAT Dative

PASS Passive Marker

EPISTEM Epistemic Marker

AGR Agreement

EVID Evidential Marker

Q Question Marker

EVALUAT Evaluative Marker

POLITE Politeness Marker

References

- Ambar, Manuela. 1999. Aspects of focus in Portuguese. In Laurice Tuller and Georges Rebuschi (eds.), *The grammar of focus*, 23-53. Amsterdam/Philadelphia: John Benjamins.
- Chung, K. 2005. *Space in tense: The interaction of tense, aspect, evidentiality and speech act in Korean*. Burnaby, Canada: Simon Fraser University dissertation.
- Cinque, Guglielmo. 1999. *Adverbs and functional heads: A cross-linguistic perspective*. Oxford: Oxford University Press.
- Haegeman, Lilian. 1994. *Introduction to government and binding theory*. 2nd edn. London: Blackwell.
- Han, Chung-hye. 1998. Asymmetry in the interpretation of -(n)un in Korean. *Japanese/Korean Linguistics* 7. 1-15.
- Hara, Yurie. 2006. Formal grammar of evidentiality and implicature: a case study of Japanese contrastive wa. *Japanese/Korean Linguistics* 14. 201-211.
- Hong, Sungryong. 2004. On topicalization in Korean and English. *The Journal of Namseoul University* 10. 7-27.
- Hong, Yongchul. 2005. 특수조사 "는"에 대한 통합적 분석 (A unified analysis of the special marker -nun). Studies in Generative Grammar 15(3). 397-413.
- Kang, Young Se. 1986. *Korean syntax and universal grammar*. Cambridge, MA: Harvard University dissertation.
- Lee, Chungmin. 2006. Contrastive (predicate) topic, intonation, and scalar meanings. In Chungmin Lee, Matt Gordon and Daniel Büring (eds.), *Topic and focus: Cross-linguistic perspectives on meaning and intonation*, 151-175. Dordrecht: Springer.
- Levinson, Stephen C. 1983. *Pragmatics*. Cambridge: Cambridge University Press.
- Rivero, Maria-Luisa. 1994. Clause structure and V-movement in the language of the Balkans. *Natural Language and Linguistic Theory* 12(1). 63-120.
- Rizzi, Luigi. 1997. The fine structure of the left-periphery. In Lilian Haegeman (ed.), *Elements of grammar: a handbook of generative syntax*, 281-337. Dordrecht: Kluwer.
- Rooryck, Johan. 2001a. Evidentiality, Part I. GLOT International 5. 125-133.
- Rooryck, Johan. 2001b. Evidentiality, Part II. GLOT International 5. 161-168.
- Ross, J. R. 1967. Constraints on variables in syntax. Cambridge, MA: MIT dissertation.

- Speas, Margaret. 2004. Evidentiality, logophoricity and the syntactic representation of pragmatic features. *Lingua* 114. 255-276.
- Speas, Peggy. 2008. On the syntax and semantics of evidentials. *Language and Linguistics Compass* 2(5). 940-965.
- Speas, Peggy and Carol Tenny. 2003. Configurational properties of point of view roles. In Anna Maria Di Sciullo (ed.), *Asymmetry in grammar*, 315-344. Amsterdam/Philadelphia: John Benjamins.
- Tenny, Carol. 2006. Evidentiality, experiencers, and the syntax of sentience in Japanese. *Journal of East Asian Linguistics* 15. 245-288.
- Uriagereka, Juan. 1995. An F position in Western Romance. In Katalin É. Kiss (ed.), *Discourse configurational languages*, 153-175. Oxford: Oxford University Press.
- Whitman, John. 1989. Topic, modality, and IP structure. In Susumo Kuno et al. (eds.), *Harvard studies in Korean linguistics* 3, 341-356. Cambridge, MA: Harvard.
- Yang, H-K. 1994. Configurational properties of CP and relativization in Korean. In Young-sun Kim et al. (eds), *Explorations in generative grammar: A festschrift for Dong-Whee Yang*, 633-652. Seoul: Hankuk Publishing.