Subject Constraints and the Consciousness Projection

Abstract: This paper attempts to provide a unified account for discourse-related subject constraints in Korean within the framework of the Minimalist Program (Chomsky 1995 and subsequent work). First, three different constructions are examined with respect to the subject constraints: Clauses with (i) the jussive suffixes, (ii) the volitive modal suffix -keyss, and (iii) the subject experiencer predicates. I demonstrate that the subject constraints in the three constructions share the same motivation that semantic/pragmatic properties of the elements require a discourse participant to be manifested as a clausal subject. In order to formalize the interface between syntax and semantics/pragmatics, I propose that a functional projection, a Consciousness phrase, is located in the left periphery (in the spirit of Rizzi 1997). This projection encodes a set of anaphoric operators that mediates the clausal subject and the discourse participant through Agree and binding relation at syntactic computation.

Keywords: Subject constraints, point-of-view, discourse operators, jussive, -keyss, subject experiencer predicates

1. Introduction

This paper discusses discourse-related restrictions that are imposed on clausal subjects in Korean. As a discourse-configurational language (Kiss, 1995), Korean lacks an overt subject-verb agreement system that imposes grammatical constraints to a subject. Nevertheless, it has been reported by several researchers that a clausal subject, regardless of whether it is overtly expressed or null, has a limited interpretation in certain types of clauses such as imperatives, promissives and exhortatives (Madigan 2008, Pak 2006, Park 2011a, Zanuttini et al. 2012, among others). For example, a subject must be interpreted as a second person in a matrix clause and be coreferential with a matrix indirect object in an embedded clause when the clause in question is an imperative clause:¹

(1) a. ∅ cip-ey ka-la.
Go home!

Minho\textsuperscript{1-}{\textquoteright}ka Jina\textsuperscript{2}-ey\textsubscript{\textasciicircum{1/2}} cip-ey ka-la-ko malhay-ss-ta.

Minho\textsuperscript{1-}{\textquoteright}ka Jina\textsuperscript{2}-eykey [e\textsuperscript{1/2} cip-ey ka-la-ko] malhay-ss-ta.

‘Minho\textsuperscript{1-}{\textquoteright}ka Jina\textsuperscript{2}-eykey [e\textsuperscript{1/2} cip-ey ka-la-ko] malhay-ss-ta.

‘Minho\textsuperscript{1-}{\textquoteright}ka Jina\textsuperscript{2}-eykey [e\textsuperscript{1/2} cip-ey ka-la-ko] malhay-ss-ta.

M.-NOM J.-DAT home-LOC go-IMP-CNJ tell-PST-DEC

In any sentence, the speaker and the addressee of the sentence are morphologically realized as the first person and the second person, respectively.\textsuperscript{2} Accordingly, in (1a), the unexpressed subject, which must be interpreted as second person, is an addressee of the sentence. On the other hand, a clause that contains the imperative suffix -\textit{la} is a reported speech in (1b). The speaker and the addressee of the reported speech is not the first and the second person, but a matrix subject and an indirect object of a matrix clause. It means that the embedded subject in (1b) also refers to the addressee if is coreferential with the indirect object of the matrix clause. Considering the semantic nature of the imperative suffix -\textit{la}, which is to directly deliver a speaker’s commands to an addressee, it is not difficult to capture the common ground of the clausal subjects in (1a) and (1b). They both are the addressees who are commanded to go home by the speaker in the actual utterance.

Contrary to the straightforwardness of this intuitive understanding of the data, providing satisfactory syntactic explanation is far from simple. If there is any syntactic mechanism that is independently responsible for the subject constraint exemplified above, first and foremost, it must reveal how the discourse participants actively play a role in deciding the interpretation of the clausal subject in syntax. Secondly, it has to be able to give a coherent account for distinct syntactic behaviors in the matrix and the embedded clauses. In other words, the mechanism should explain why the clausal subject is restricted to certain person in the matrix context and why it is always controlled by a matrix argument in the embedded context. Thirdly, the mechanism must capture the fact that the subject constraint in question is applied identically both to an overt subject, and to a null subject.
Lastly, it should also generalize the mechanism so that it can encompass a wide range of data showing similar patterns.

Based on these considerations, the goal of this paper is to provide a unified account for subject constraint phenomena in Korean. In order to achieve this goal, first, I will show that a discourse participant is systematically realized as a clausal subject depending on the contexts in various constructions. A group of clause types, (labeled ‘jussives’ by Pak (2004)), is the most extensively examined with regard to the subject constraint (Madigan 2008, Pak 2004, 2006, Pak et al. 2008, Park 2011a, 2013, Zanuttini et al. 2012), however, I will extend my discussion to two other types of constructions, which are the volitive modal suffix –keyss construction and the experiencer predicate constructions, as Park (2011a, 2013) do. It will be demonstrated that the three different constructions share not only the same syntactic behaviors regarding the clausal subject but also a motivation behind the patterns. Then, I will propose a new functional phrase in the left periphery (in the spirit of Rizzi, 1997) that mediates a discourse participant and a clausal subject in derivations of the constructions.

The remainder of this paper is organized as follows. Section 2 discusses the subject constraints occur in clauses with jussive suffixes, a volitive modal suffix –keyss, and subject experiencer predicates. Section 3 briefly reviews previous analyses of the subject constraint phenomena in Korean. In section 4, I propose a syntactic mechanism to formalize the relationship between the discourse participant and the clausal subject, and argue that the mechanism can predict all three different constructions in question here. Section 5 is the analysis of the data presented in section 2. Section 6 discusses additional data with respect to the proposed analysis. Section 7 concludes the paper.

2. A Clausal Subject and the Centre of Consciousness

In this section, three constructions that show the subject constraints are examined:

(i) the jussive constructions that include the imperatives, the promissives and the
exhortatives, (ii) the volitive modal suffix –keyss construction, and (iii) the subject experiencer predicate constructions. The subject constraints seem to be attributed to semantic/pragmatic properties of a key morpheme in each construction, such as a jussive clause type suffix, the affix –keyss, and the subject experiencer predicate, rather than to grammatical agreement features as in inflectional morphemes in Romance languages that have rich agreement paradigms. As will be seen shortly, the semantic/pragmatic properties of the key morpheme require the clausal subject to be the one who is conscious of the situation that is expressed by the clause, and a discourse participant is realized as the subject as a result.

2.1. Jussive Constructions

Pak et al. (2004) clusters three different verbal suffixes in Korean, -la, -ma and –ca, which respectively indicate imperative, promissive and exhortative clause type into a single group, and name it ‘jussives’. According to their observations, the jussive suffixes play a crucial role in interpreting the clausal subject since “the jussive clause type serves to express a property which is required of some individual, metaphorically added to this individual’s To-do List (Pak et al. 2004).” Each jussive type suffix allows only a certain person pronoun to be appear as a subject in a matrix context, depending on its meaning it carries, regardless of the presence or absence of the overt form:

(2) a. (Ney/*Nay/*Minswu-ka) changmwun-ul tat-a-la.
   (You/*I/*Minswu-NOM) window-ACC close-E-IMP
   ‘Close the window.’

b. (Nay/*Ney/*Minswu-ka) changmwun-ul tat-u-ma.
   (I/*You/*Minswu-NOM) window-ACC close-E-PRM
   ‘I will close the window.’

c. (Wuli/*Nay/*Ney/*Minswu-ka) changmwun-ul tat-ca.
   (We/*I/*You/*Minswu-NOM) window-ACC close-EXH
   ‘Let’s close the window.’
As shown in (2a), the imperative suffix –la, which is used to deliver a speaker’s command to an addressee, only allows a second person to be a subject. The promissive suffix –ma in (2b), that expresses a promise of the speaker, must have a first person subject. The exhortative suffix –ca in (2c) only allows a first person plural subject which includes the speaker and the addressee since the suffix is used when the speaker proposes the addressee to participate in some actions together. The illocutionary force of each jussive suffix requires the speaker, the addressee, or the both to be realized as a subject, and the speaker and the addressee represent the first and the second person, respectively (Harley and Ritter 2002).

In embedded contexts, the same motivation results in obligatory control effects (Lee 2012, Park 2011a, 2013). The embedded subject, which is usually null or is replaced by a reflexive pronoun, is controlled by a matrix argument:

(3) a. Jina\(^1\)-ka Minswu\(^2\)-eykey \([e^2/caki^2-ka\ changmwun-ul tat-u-la-ko]\)
   J.-NOM M.-DAT self-NOM window-ACC close-E-IMP-CNJ
   malhay-ss-ta.
   tell-PST-DEC
   ‘Jina told Minswu to close the window.’

b. Jina\(^1\)-ka Minswu\(^2\)-eykey \([e^1/caki^1-ka\ changmwun-ul tat-u-ma-ko]\)
   J.-NOM M.-DAT self-NOM window-ACC close-E-PRM-CNJ
   malhay-ss-ta.
   tell-PST-DEC
   ‘Jina told Minswu that she would close the window.’

c. Jina\(^1\)-ka Minswu\(^2\)-eykey \([e^{1+2}/caki^{1+2}-tul-i\ changmwun-ul tat-ca-ko]\)
   J.-NOM M.-DAT self-PL-NOM window-ACC close-EXH-CNJ
   malhay-ss-ta.
   tell-PST-DEC
   ‘Jina told Minswu to close the window together.’

The embedded imperative suffix –la in (3a) requires the clausal subject to refer to
a matrix indirect object. It is also shown that, in (3b), the embedded promissive suffix –ma refers to a matrix subject and, in (3c), the embedded exhortative suffix –ca is coreferential with both the subject and the indirect object of the matrix clause. Considering the fact that the matrix subject and the indirect object are the speaker and the addressee, respectively, in a reported speech, the restrictions in the embedded contexts are analogous to those in the matrix contexts that are presented in (2). It should be also noted that the dependency between the embedded subject and the matrix argument in (3) holds true even if the embedded subject is not null.

2.2. Volitive Modal Marker –keyss Construction

The Korean modal suffix –keyss is used to express a speaker’s “commissive force (Austin 1975).”3 Due to its illocutionary force, it behaves identically to the promissive suffix –ma with respect to the clausal subject.

(4) (Nay/*Ney/*Jina-ka) kot i chayk-ul ilk-keyss-ta.

(I/*You/*J.-NOM) soon this book-ACC read-VOL-DEC

‘I will read this book soon.’

In a matrix context, as shown in (4), the subject must be interpreted as first person.

(5) Yenghi1-ka Minswu2-eykey [e1/caki1-ka kot ku chayk-ul

Y.-NOM M.-DAT self-NOM soon that book-ACC


read-VOL-DEC-CNJ tell-PST-DEC

‘Yenghi told Minswu that she would read that book soon.’

As in the embedded promissive clause in (3b), the embedded –keyss in (5) only allows its clausal subject to be coreferential with a matrix subject. The actual speaker of the modalized event is realized as the clausal subject in the –keyss clause irrespective of its context. The presence or absence of an overt subject does not affect the behavior.
2.3. Subject Experiencer Predicate(SEP) Construction

Park (2013) points out that a type of psychological predicates, such as *kulip- 'miss' and coh- 'like', shows the discourse-related subject constraints. Unlike the jussive suffixes and the ~keyss, the SEP does not convey any illocutionary force that directly affects a participant of a speech act. However, the SEP requires a subject to be a speaker who is actually conscious of mental states that are expressed by the predicate.

(6) a. (Nay/*Ney/*Jinswu-ka) choykun nemwu oylop-ta.
   I/*You/*Jinswu-NOM lately very feel lonely(SEP)-DEC
   ‘I am very lonely lately.’

   b. (Nay/*Ney/*Jinswu-ka) ku cip-i coh-ta.
   I/*You/*Jinswu-NOM that house-NOM like(SEP)-DEC
   ‘I like that house.’

In a matrix context, as shown in (6), the SEPs allow their subjects to be interpreted as a first person regardless of whether the subject is overtly expressed. The SEP oylop- 'feel lonely' in (6a) has only one argument that is the subject, while the SEP coh- 'like' in (6b) has also the direct object. It appears to be true number of arguments does has nothing to do with the subject constraint.

   J.-NOM M.-DAT self-NOM feel lonely(SEP)-DEC-CNJ tell-PST-DEC
   ‘Jina¹ told Minji² that she¹ feels lonely.’

   b. Jina¹-ka Minji²-eykey [e¹/caki¹-ka ku cip-i coh-ta-ko]
   J.-NOMM.-DAT self-NOM that house-NOM like(SEP)-DEC-CNJ
   malhay-ss-ta.
   tell-PST-DEC
   ‘Jina¹ told Minji² that she¹ likes that house.’

The same pattern that was observed in the embedded promissive and the embedded ~keyss clause is shown here in (7). The embedded subject is coreferential with a
matrix subject, and the subject refers to the speaker of a reported utterance.

In sum, the constraints depend on the connection between the subject and the discourse participant who is fully conscious of the situation that is denoted by the predicate of the clause in question. In all three constructions, consistently, the subject is restricted either to the first person or to the second person in matrix contexts, and is coreferential either with the matrix subject or with the matrix object in embedded contexts.

3. Previous Analyses

3.1. Person Agreement Approach

Miyagawa (2010) claims that limited cases of person restriction in Korean and Japanese are highly associated with the existence of specific elements, such as Korean jussive markers, Japanese exhortative –masyoo and negative supposition –mai, that trigger the restriction. In Miyagawa’s (2010) system, it is assumed that all languages uniformly have a set of uninterpretable phi-features along with topic/focus features in C, and either phi-features or topic/focus features play a role in derivations according to a type of languages. In agreement languages, only the phi-probes are activated in derivations, and are valued by interpretable phi-features of a subject in TP. In discourse-configurational languages, on the other hand, it is not the phi-features but the topic/focus features that are activated in general. However, the presence of elements such as modal markers that bear the interpretable person feature exceptionally triggers the phi-probe in C to be activated.

Let’s take Korean imperative clauses, which restricts its clausal subject to be the second person in a matrix context, as an example, and apply Miyagawa’s (2010) analysis to it. According to his assumption, the merge position of the imperative marker –la is the head of a Modal phrase (MP) that is posited between CP and TP. Since the imperative marker bears an interpretable second person feature, the phi-probe in C is activated and searches for its goal. The phi-probe is
valued by the interpretable second person feature in M, and the valued phi-probe is inherited to T. The person feature is able to impose constraints on a subject in Spec of TP when T assigns a nominative Case to the subject. The derivation is illustrated as below.

(8)

The analysis may apply to the other types of jussive clauses, promissives and exhortatives, and also to clauses containing the volitive modal suffix —keyss which assumably appear in MP as well. However, we need an additional mechanism that explains a link between the person feature and an matrix argument in order to account for the control effects that occur in embedded contexts.

Another line of research has made a similar assumption to account for Korean jussive constructions and their subject restrictions (Pak et al. 2008, Park 2011a, Zanuttini et al. 2012). It is proposed that a Jussive projection (JussiveP), which hosts only those three types of jussives, universally exists in a clausal domain regardless of its overt presence (Zanuttini et al. 2012). The Jussive head has an interpretable person feature, as the M head does in Miyagawa’s (2010) assumption, and may also have a nominative Case feature that activates the JussiveP in derivations. If the JussiveP is activated, the interpretable person feature in the Jussive head values an uninterpretable person feature in T through Agree. Then, this valued person feature agrees with a subject in the Spec of vP, which is in a c-commanding position, and imposes an interpretive constraint:
Since the imperative –la, the promissive –ma, and the exhortative –ca, bear [person:2] feature, [person:1] feature, and [person:1+2], respectively, each clause type imposes the constraint to the subject as shown in (2) in the previous section. In matrix clauses, the subject of imperative is interpreted as the second person, the subject of the promissive is interpreted as the first person, and the subject of the exhortative is interpreted as the first person plural, according to the person feature in the Jussive head.

Based on Schlenker (2003), reference shifting is hypothesized for the jussives in embedded contexts (Pak et al. 2008, Park 2011a, Zanuttini et al. 2012). In embedded clauses, a subject does not always correspond with the person feature of the Jussive head but rather matches the feature of a matrix argument. For instance, the subject of the embedded promissive clause is read as the first person only when the matrix subject is the first person as shown in (10a) below. Otherwise, the subject is not restricted to be interpreted as the first person.

(10) a. Nay^1-ka emma^2-eykey [e^1 yelsimhi kongpwu-lul ha-ma-co]
   I-NOM mom-DAT hard study-ACC do-PRM-CNJ
   malhay-ss-ta.
   tell-PST-DEC
   ‘I told mom that I would study hard.

b. Ney^1-ka ecey na^2-eykey [e^1 khephi-lul taycepha-ma-co]
   You-NOM yesterday I-DAT coffee-ACC treat-PRM-CNJ
   malhay-ss-ta.
‘You told me yesterday that you would treat me (a cup of) coffee.’

c. *Namdongsayng*¹-i chinkwu-eykey [e¹ kot cenhwalul ha-ma-ko]


‘(My) Brother told his friend that he would call him/her soon.’

In order to explain a mismatch between the embedded subject and the person feature of the Jussive, the person feature is assumed to be a shiftable feature that reflects the perspective of reported speech act when a context shifter (e.g., *malha*-‘tell’) exists. In other words, the shiftable first person refers to a speaker of the reported speech, which is the matrix subject, and the shiftable second person refers to an addressee of the reported speech, which is a matrix indirect object, when the matrix predicate is *malha*-‘tell’ as in (10). According to the reference shifting hypothesis, proposed by Pak et al. (2008) and others, the embedded subjects in (10a-c) can be realized as any grammatical person as far as it corresponds to that of the matrix subject that refers to the actual speaker of the reported utterances, since the shiftable first person feature represents the speaker of the reported speech act.

3.2. Discourse Operator Approach

In addition to the above-mentioned assumptions on JussiveP that are proposed by Zanuttini et al. (2012) and others, Park (2013) assumes that a Speaker/Addressee phrase (S/AP), which contains discourse operators in its specifier position, is located in both matrix and embedded CP area. One of the discourse operators, which are Op_S, Op_A, and Op_S/A, becomes available in the derivation depending on verbal elements at issue in this paper. For example, as for the jussives, Op_S is activated in the promissive, Op_A in the imperative, and Op_S/A in the exhortative. Based on Baker's (2008) Person Licensing Condition (PLC), the discourse operator
imposes a restriction on the person feature of the closest c-commanding DP that is a clausal subject. In other words, the person feature of the subject must correspond with that of the discourse operator in Spec of S/AP. The discourse operator does not bear any person feature, and thus the person feature of the discourse operator is decided by its referent. Park (2013), following Park (2011b), assumes that each discourse operator has a specific referent depending on contexts: In root contexts, O_pS, O_pA and O_pS/A refer to the speaker, the addressee and both of them, respectively, while in embedded contexts, they respectively refer to the matrix subject, the matrix indirect object and both of them. The derivation will crash if there is a mismatch in the person feature between the clausal subject and the referent of the activated discourse operator.

Park (2013) proposes that this mechanism identically applies to the jussive, -keyss, and the SEP constructions. However, the role of discourse operators in the derivation of the jussive construction is different from that in the other two constructions with respect to the interpretation of the subject. Since Park (2013) adopts the agreement analysis of jussive subjects, which is proposed by Pak et al. (2008) and others, the subject of the jussive clause receives the person feature from the Jussive head through Agree operation as shown in (9) above. Thus, the subject with the valued person feature is bound to the discourse operator in Spec of S/AP, and is spelled out at the interface when the person feature has the same value with that of the referent of the discourse operator. The derivations for the jussives are schematized as in (11).

(11) a. IMPERATIVE

\[
\begin{array}{c}
[S/\text{AP}] O_pA \left[ \text{JussiveP[Jussive [TP pro [T [person:2]u ]...]]] } \right. \\
\end{array}
\]

b. PROMISSIVE

\[
\begin{array}{c}
[S/\text{AP}] O_pS \left[ \text{JussiveP[Jussive [TP pro [T [person:1]u ]...]]] } \right. \\
\end{array}
\]

c. EXHORTATIVE
On the other hand, the M head and the V head, which are respectively the locus of -keyss and the SEP, do not bear the interpretable person feature. In these constructions, the subject receives the person feature after it is under control of the discourse operator to which it is bound. According to Park (2013), the derivations for -keyss and the SEP clauses are roughly illustrated as (12) and (13), respectively.

(12) a. Root -keyss clause
\[[S/\text{AP} \quad \text{OP}_{S/A} \quad [\text{Jussive}]_{\text{Jussive}} \quad [\text{person}:1+2] \quad [\text{TP} \quad \text{pro} \quad [\text{I} \quad [\text{person}:1+2]u \quad ]]]\]

b. Embedded -keyss clause
\[[\text{CP} \quad [\text{TP} \quad \text{subj} \quad ... \quad [S/\text{AP} \quad \text{OP}_{S} \quad [\text{I} \quad ... \quad [\text{MP} \quad [\text{M} \quad \text{-keyss}] \quad [\text{TP} \quad \text{pro} \quad ...]]]]\]

(13) a. Root SEP clause
\[[S/\text{AP} \quad \text{OP}_{S} \quad [\text{I} \quad ... \quad [\text{TP} \quad \text{pro} \quad ...[\text{VP}[V \quad \text{SEP}]...]]]]\]

b. Embedded SEP clause
\[[\text{CP} \quad [\text{TP} \quad \text{subj} \quad ... \quad [S/\text{AP} \quad \text{OP}_{S} \quad [\text{I} \quad ... \quad [\text{TP} \quad \text{pro} \quad ...[\text{VP}[V \quad \text{SEP}]...]]]]\]

In the root clause, the subject pro is bound to OPs, and hence is read as the first person since the first person speaker is the referent of OPs in the root clause as shown in (12a) and (13a). The binding relation between the subject and the operator holds same in the embedded clause as shown in (12b) and (13b). The subject, however, is interpreted according to the matrix subject DP in the embedded clause due to the assumption that OPs refers to the matrix subject in the embedded context. Note that, unlike the Jussive head that provides the valued person feature to the subject via Agree, the M head and the V head here only decide the discourse operator that is activated in the derivation. Once the operator is triggered, the M head and the V head do not participate in the derivations with
respect to the interpretive restrictions on the subjects.

4. Proposal: Consciousness Phrase and its Anaphoric Operators

In the spirit of the fine structure of CP (Rizzi 1997), I propose that there is a functional phrase that encodes information of “point of view” (Kuno 1972) in the left periphery, and argue that the phrase carries out a role in a syntactic manifestation of a discourse participant in derivations.

4.1. Consciousness Phrase

Since the function of this phrase is to connect the centre of consciousness in a given speech act with a clausal subject, I will call this phrase as a Consciousness phrase (henceforth, ConscP) (Barrie and Kim 2014). The ConscP is assumed to be located below a Modal phrase (MP) and above a Tense phrase (TP), and the Consc head consists of two anaphoric operators: a Point-of-View operator ([POV]) and a Conferree operator ([CONF]). As their names suggest, the set of anaphoric operators encodes information of “point of view”, in other words, it is used to find “logophoric orientations (Chou 2012).” The [POV] and the [CONF] are speaker-oriented and hearer-oriented in nature, respectively, however, note that they do not bear any person feature. Instead, they are respectively bound to a subject and an indirect object of a superordinate clause whenever they become activated. Assume that the [POV] is activated when a certain element in structure requires that the speaker is in conscious of the situation, while the [CONF] is activated if it is the hearer who is fully in control of the situation.

4.2. The Features of Jussives, -keyss and the SEPs

Another key assumption of my proposal is that the jussives, the –keyss, and the SEPs have an uninterpretable consciousness feature ([uConsc:__]) as well as other syntactic and semantic features in their original positions. For example, the M head, where the –keyss is merged, bears the [uConsc:__] along with other semantic features such as [+volition]. In the derivation, the [uConsc:__] must be valued by a matching feature in order to be properly spelled out at LF (Chomsky 2000, 2001),
and in this case, the Consc operators are the matching features. In other words, the [uConsc:__] forms a probe-goal relation with either or both of the Consc operators that is already activated, and the relation yields Agree operation. The proposed derivation with regard to features is schematized as below.

(14) a. Activation of [POV]  

```
(POV) /  
TP   /  
     /  
ConscP /  
      /  
  Consc[POV] /  
   /  
Subj /  
... /  

Clausal boundary
```

b. Activation of [CONF]  

```
(CONF) /  
TP   /  
     /  
ConscP /  
      /  
  Consc[CONF] /  
   /  
Subj /  
... /  

Clausal boundary
```

After being valued to the [uConsc:__], the [POV] is bound to a subject of a superordinate clause as shown in (14a), whereas the [CONF] is bound to an indirect object of the higher clause as shown in (14b). In the following section, analyses of the data presented in section 2 will be demonstrated.

5. Analysis  

5.1. Jussive Constructions  

Two basic assumptions should be made before jumping into the analyses. Firstly, unlike in some previous proposals (Pak et al. 2008, Park 2011a, Zanuttini et al. 2012), I do not assume an independent functional phrase that hosts only a jussive clause type and its restricted person feature. Instead, following Isac (2012), I assume that each jussive clause type is a combination of irrealis modality and a person, and a Spell-Out point of the jussive is a C head which also hosts a declarative and an interrogative clause type. A Modal phrase contains the irrealis modality, and Consc operators receive person features from arguments in a superordinate clause via binding relation. The jussive suffix is interpreted at PF when the irrealis modality and the certain Consc operator are posited together. The
correspondence between the morphosyntactic features and the phonological realization of the jussives can be illustrated as in (15), using notations of the Distributed Morphology (Halle and Marantz 1993, 1994).

(15) a. [IRR, CONF] ⇔ -la
b. [IRR, POV] ⇔ -ma
c. [IRR, POV, CONF] ⇔ -ca

Thus, in Korean, an M head with [IRR] is undergone head-movement to merge with a C head that is valued by the Consc operator with a person feature:

(16) [CP [C₀ C [M₀ [IRR]]],] [MP t, [ConscP [TP ...]]]

Next, following Speas and Tenny (2003), I assume that a Speech Act (SA) projection, which has a speaker as its subject and an addressee as its indirect object, exists above a matrix CP. The speaker and the addressee in the SAP denote the first and the second person, respectively, according to the Harley and Ritter’s (2002) feature geometry. Then, a syntactic representation above TP in the matrix clause would look like (17) below. Note that the merge position of the [uConsc:__] differs depending on a position of an element (e.g., jussive suffixes, -keyss, and subject experiencer predicates).

(17)

```
SAP
  1π
   SAP
  2π
   CP
  MP
  C
     [uConsc:__]
ConscP
  M
    [POV] [CONF]
TP
Consc
```
Now let’s recall the jussives in matrix clauses that were presented in (2).

(18) a. (Ney/*Nay/*Minswu-ka) changmwun-ul tat-a-la.
    (You/*I/*Minswu-NOM) window-ACC close-E-IMP
    ‘Close the window.’ (=2a))

b. (Nay/*Ney/*Minswu-ka) changmwun-ul tat-u-ma.
   (I/*You/*Minswu-NOM) window-ACC close-E-PRM
   ‘I will close the window.’ (=2b)

c. (Wuli/*Nay/*Ney/*Minswu-ka) changmwun-ul tat-ca.
   (We/*I/*You/*Minswu-NOM) window-ACC close-EXH
   ‘Let’s close the window.’ (=2c)

The only difference among the three clause types in (18a-c) is the Consc operator, either [POV], [CONF], or both of them, that is activated. As assumed above, the M head containing the irrealis feature moves up to C, and the irrealis feature in M triggers the [uConsc:__] to function as a probe in the derivation. A potential goal for this probe is the operator in ConscP. Since the Consc operators are selectively activated according to the clause type, either [POV], [CONF] or both of them, can be valued to the [uConsc:__] in C via Agree. The derivation of clause types in (18a-c) is demonstrated in (19a-c) below.

(19) a. Matrix imperative clause
   \[ \text{[SAP} 1 \pi^1 2 \pi^2 [C^0 [uConsc:CONF^2] [MP_{ConscP_{Consc[CONF^2]} [TP .. ]}]]] \]

b. Matrix promissive clause
   \[ \text{[SAP} 1 \pi^1 2 \pi^2 [C^0 [uConsc:POV^1] [MP_{ConscP_{Consc[POV^1]} [TP .. ]}]]] \]

c. Matrix exhortative clause
   \[ \text{[SAP} 1 \pi^1 2 \pi^2 [C^0 [uConsc:POV^1,CONF^2] [MP_{ConscP_{Consc[POV^1,CONF^2]} [TP .. ]}]]] \]

The [POV] is bound to the first person feature in SAP, which is the superordinate clause of the jussive clause, while the [CONF] is bound to the second person
feature in SAP. Thus, C has the person features after the \text{Consc} \text{operator} is valued to the position.

In C, the \text{Consc} \text{operators} play two important roles: Firstly, the jussive suffix can be properly spelled out at PF when the irrealis feature in M, that is merged into C, is combined with the person feature which was originally in the argument of SAP. Secondly, a clausal subject that is in Spec of TP is able to have the same person feature with the argument in SAP when T inherits the features from C (Feature Inheritance: Chomsky 2008, Miyagawa 2010). Accordingly, we can make correct predictions about the subjects of matrix jussive constructions that are shown in (18) above.

Let’s turn to the embedded jussives and their clausal subjects. The examples in (3) are repeated here as (20).

(20) a. Jina\textsuperscript{1}-ka Minswu\textsuperscript{2}-eykey \{e\textsuperscript{2}/caki\textsuperscript{2}-ka changmwun-ul tat-u-la-ko\}
   J.-NOM M.-DAT self-NOM window-ACC close-E \textbf{IMP}-CNJ
   malhay-ss-ta.
tell-PST-DEC
   ‘Jina told Minswu to close the window.’ (=3a))
b. Jina\textsuperscript{1}-ka Minswu\textsuperscript{2}-eykey \{e\textsuperscript{1}/caki\textsuperscript{1}-ka changmwun-ul tat-u-ma-ko\}
   J.-NOM M.-DAT self-NOM window-ACC close-E \textbf{PRM}-CNJ
   malhay-ss-ta.
tell-PST-DEC
   ‘Jina told Minswu that she would close the window.’ (=3b))
c. Jina\textsuperscript{1}-ka Minswu\textsuperscript{2}-eykey \{e\textsuperscript{1+2}/caki\textsuperscript{1+2}-tul-i changmwun-ul tat-ca-ko\}
   J.-NOM M.-DAT self-PL-NOM window-ACC close-\textbf{EXH}-CNJ
   malhay-ss-ta.
tell-PST-DEC
   ‘Jina told Minswu to close the window together.’ (=3c))

The proposed analysis also predicts the obligatory control effects that are observed
in the embedded jussive constructions. As in the matrix clause, the consc operator is activated according to the jussive suffix, and it is valued to the uninterpretable probe in the C head. However, in this case, the superordinate clause is not SAP but the matrix CP. Thus, the Consc operators are bound to elements that are in a subject and an indirect object position of the matrix CP, respectively, rather than the person features. The derivations are as follow.

(21) a. Embedded imperative clause

\[ [\text{CP} \text{Subj.}^1 \text{I.O.}^2 [\text{CP}[\text{C}^0 [\text{uConsc:CONF}^2] [\text{MP}[\text{ConscP}[\text{Consc [CONF}^2] [\text{TP} ..]]])] ] ] ]

b. Embedded promissive clause

\[ [\text{CP} \text{Subj.}^1 \text{I.O.}^2 [\text{CP}[\text{C}^0 [\text{uConsc:POV}^1] [\text{MP}[\text{ConscP}[\text{Consc [POV}^1] [\text{TP} ..]]])] ] ] ]

c. Embedded exhortative clause

\[ [\text{CP} \text{Subj.}^1 \text{I.O.}^2 [\text{CP}[\text{C}^0 [\text{uConsc:POV}^1, \text{CONF}^2] [\text{MP}[\text{ConscP}[\text{Consc [POV}^1, \text{CONF}^2] [\text{TP} ..]]])] ] ] ]

The person feature of the matrix argument, along with other semantic and syntactic features of it, is inherited to T through the Consc operator in C, and thus the embedded subject in Spec of TP is restricted to have the features of the matrix argument.

5.2. The Volitive Modal Suffix –keyss Constructions

As discussed in Section 2.2., -keyss is a modal suffix that conveys a speaker’s volition. The examples of –keyss construction in (4-5) are repeated here as (22).

(22) a. (Nay/*Ney/*Jina-ka) kot i chayk-ul ilk-keyss-ta.

(I/*You/*Jina-NOM) soon this book-ACC read-VOL-DEC

‘I will read this book soon.’ (=4))

b. Yenghi^1-ka Minswu^2-eykey \([e^1/caki^1-ka] \text{kot ku chayk-ul}

Y.-NOM M.-DAT self-NOM soon that book-ACC


read-VOL-DEC-CNJ tell-PST-DEC
Yenghi told Minswu that she would read that book soon." (=5)

Since is oriented toward the speaker, it is assumed that this volitive modal suffix -keyss activates the [POV] in Conc in a derivation. The [uConsc:] in M, the Spell-Out position of -keyss, searches for the [POV] that is a matching goal to be checked via Agree. After the [POV] is checked with the uninterpretable feature in M, features of a subject of the superordinate clause are inherited to T through the M head due to binding relationship between the subject in the superordinate clause and the [POV].

As a result of the derivations demonstrated in (23), the subject of -keyss clause is the first person in the matrix clause, and refers to the matrix subject in the embedded clause.

5.3. The SEP Constructions

A subject of the SEP is restricted to the speaker, who is fully conscious of the mental state that is expressed by the predicate. The interpretive constraints were shown in (6-7), and they are repeated here as (24-25) below.

(24) The SEPs in matrix clauses

a. (Nay/*Ney/*Jinswu-ka) choykun nemwu oylop-ta.
   I/*You/*Jinswu-NOM lately very feel lonely(SEP)-DEC
   ‘I am very lonely lately.’ (=6a))

b. (Nay/*Ney/*Jinswu-ka) ku cip-i coh-ta.
   I/*You/*Jinswu-NOM that house-NOM like(SEP)-DEC
   ‘I like that house.’ (=6b))
(25) The SEP in embedded clauses

a. Jina\textsuperscript{1}-ka Minji\textsuperscript{2}-eykey \([e^{1}/caki^{1}\text{-ka }\text{oylo}p\text{-ta-ko}]\) malhay-ss-ta.

\(\text{J.-NOM M.-DAT } \text{self-NOM feel lonely(SEP)-DE}C\text{-CNJ tell-PST-DEC}\)

‘Jina\textsuperscript{1} told Minji\textsuperscript{2} that she\textsuperscript{1} feels lonely.’ (=\textit{(7a)})

b. Jina\textsuperscript{1}-ka Minji\textsuperscript{2}-eykey \([e^{1}/caki^{1}\text{ ku }\text{cip-i coh-ta-ko}]\)

\(\text{J.-NOM M.-DAT } \text{self-NOM that house-NOM like(SEP)-DE}C\text{-CNJ tell-PST-DEC}\)

‘Jina\textsuperscript{1} told Minji\textsuperscript{2} that she\textsuperscript{1} likes that house.’ (=\textit{(7a)})

As for the SEPs, I assume that the locus of the [uConsc:] is \(v\), where \(V\) is moved and merged into. This unvalued probe searches for a matching goal in a structure, which is the activated [POV] in the Consc head above TP.\textsuperscript{7} Then, the whole \(v\) head, containing both \(V\) and \(v\), moves up to T. In T, the Consc feature imposes constraints on the subject in Spec of TP. The derivations of both the matrix and the embedded contexts are demonstrated in (26).

(26) a. The SEP in a matrix clause

\[
[SAP^1 \pi^1 2 \pi^2 [CP_{\text{Consc}}[CP_{\text{Consc}}[POV^1]]][TP_{Subj.}[TT]\{V[\{uConsc:POV^1]\}]]][vP..]]]
\]

b. The SEP in an embedded clause

\[
[CP_{\text{Subj.}}^1 I.O.^2[CP_{\text{Consc}}[CP_{\text{Consc}}[POV^1]]][TP_{Subj.}[TT]\{V[\{uConsc:POV^1]\}]]][vP..]]]
\]

In consequence, the clausal subject of the matrix SEP is always first person as shown in (24), and refers to the matrix subject in the embedded context as shown in (25).

6. Perspective Shift in Interrogative Clause

The proposed analysis is also able to predict interesting behaviors of the constructions, with respect to perspective shifts in interrogative contexts. Only declarative sentences were discussed in the previous sections, however, subject constraints of the given sorts occur in the interrogative contexts as well. Except the
jussives, which cannot co-occur with any other clause type suffix, -keyss and the SEPs can be followed by an interrogative suffix -ni in both matrix and embedded contexts. Then, the constraint patterns shift: a subject has to be interpreted as the second person, rather than the first person, in the matrix context, and a subject is always coreferential with an indirect object, rather than a subject, of a superordinate clause in the embedded context. The subject constraint patterns in the interrogative clauses are presented in (27-28) below.8

(27) -keyss in interrogative clauses
   a. (Ney/*Nay/*Jinhi-ka) tosekwan-ey ka-keyss-ni?
      You/I/Jinhi-NOM library-LOC go-VOL-INT
      ‘Do you intend to go to the library?’
   b. Dahi1-ka Jwun2-eykey [e"1/2 tosekwan-ey ka-keyss-nya-ko]
      D.-NOM J.-DAT library-LOC go-VOL-INT-CNJ
      mwule-ss-ta.
      ask-PST-DEC
      ‘Dahi asked Jwun that if he intended to go to the library.’

(28) The SEPs in interrogative clauses
   a. (Ney/*Nay/*Senwu-ka) kongpho yenghwa-ka mwusep-ni?
      You/I/Senwu-NOM horror movie-NOM afraid(SEP)-INT
      ‘Are you afraid of horror movie?’
   b. Dahi1-ka Jwun2-eykey [e"1/2 kongpho yenghwa-ka mwusep-nya-ko]
      D.-NOM J.-DAT horror movie-NOM afraid(SEP)-INT-CNJ
      mwule-ss-ta.
      ask-PST-DEC
      ‘Dahi asked Jwun that if he was afraid of horror movies.’

In a declarative clause, -keyss is used to directly deliver the speaker’s intention to the addressee, whereas, in an interrogative clause, it is used to inquire whether the addressee’s intends to do the action that is expressed by the preceding verb, as
shown in (27). Likewise, the SEPs are used to express only the speaker’s mental state in the declarative clause, while it is only the addressee who may experience the state of mind that is described by the SEP in the interrogative clause. The shifts seem to be due to fundamental semantic properties of questions. Park (2013) suggests that, based on Karttunen’s (1977) performative hypothesis, “the person who has the will or serves the center of world evaluation should be the addressee in the interrogative contexts.” In this sense, it can be said that the centre of consciousness changes from the speaker to the addressee when a clause type of both \(-\text{keyss}\) and the SEP constructions shifts from the declarative to the interrogative.

In the proposed derivations, the shifts can be explained by a selective activation of ConsC operators. It has been assumed that the [POV] is activated in both \(-\text{keyss}\) and the SEP constructions, when the clauses are declarative. Now, it is also assumed that the [CONF] is activated, instead of the [POV], when there is [+Q] feature in C. The change in activation naturally results in a change of logophoric orientation. The [CONF] is bound not to a subject but to an indirect object of its superordinate clause, and thus the subject refers to the second person, which is a subject of the SAP, in matrix contexts, and to the indirect object of the matrix clause in embedded contexts.

7. Concluding Remarks
This paper has examined the subject constraint phenomena in Korean, and proposed a unified syntactic analysis for the seemingly diverse phenomena. Initially, I showed that an interpretation of a clausal subject is systematically restricted when either the jussive suffixes, which are the imperative suffix -la, the promissive suffix -ma, and the exhortative suffix -ca, the volitive modal suffix -keyss, or the subject experiencer predicates exist in the same clause. In all these types of clauses, constraint patterns differ depending on whether it is in matrix contexts or in embedded contexts. In the matrix contexts, the clausal subject is always
interpreted as the first or the second person regardless of the presence or absence of an overt subject. To be specific, the subjects of the promissive, the exhortative, the volitive -keyss, and the SEP clauses must be interpreted as the first person, while the subject of the imperative clause must be read as the second person in the matrix contexts. On the other hand, in the embedded contexts, the clausal subject is not restricted to any person feature but is coreferential with either a matrix subject or a matrix indirect object.

It has already been reported by many previous studies that the subject constraint in Korean is not attributed to morphosyntactic person feature agreement between the subject and the verbal morphology. Instead, semantic/pragmatic properties of the element, such as the jussives, -keyss, and the SEPs, require their clausal subject to be a person in a discourse who is fully conscious of the event that is denoted by the verb. In the above-mentioned constructions of Korean, either the speaker or the addressee, or both of them, are required to be realized as the clausal subjects. In that sense, the constraint patterns that appear in the matrix and the embedded contexts can be understood as the different behaviors that arise from the same motivation.

Thus, I proposed a functional projection in a CP domain, and this projection plays a key role in formalizing the interface between discourse participants and clausal subjects in syntactic derivations. The projection, which is called 'Consciousness Phrase', encodes the POV operator and the CONF operator, and the two operators are oriented toward the speaker and the addressee, respectively. In the derivations, the [POV] and the [CONF] are respectively bound to a subject and an indirect object of a superordinate clause irrespective of contents of the superordinate clause, and value an uninterpretable consciousness feature via Agree operation. In addition, each verbal element that gives rise to the discourse-related subject constraint heads the [uConsc:__] which must be checked by a matching feature, and also activates the consciousness operators in the
derivation. According to the assumptions, an interpretation of the clausal subject is restricted by the features of the superordinate argument to which the activated consciousness operator is bound.

The proposed analysis is able to account for a variety of data that was presented in section 2, without making further assumptions. Most importantly, the analysis does not make a distinction between the matrix and the embedded contexts, which are fundamentally identical with respect to the motivation of the constraint. The difference between the two contexts are attributed to contents of the arguments of the superordinate clause to which the operators are bound, and thus nothing is additionally assumed with regard to referents of discourse operators. (cf. Park 2011b, 2013). Also, the analysis is not contingent upon whether the subject in question is overtly expressed or not since the analysis does not presuppose the subject is either a pro or a PRO. Even if the subjects of the embedded contexts systematically show the obligatory control effects in their relations with the arguments in the superordinate clauses (Lee 2012, Madigan 2008, Park 2011a, etc.), it must not be ignored that the phenomena are not limited to the null subjects. Moreover, the key assumptions of the analysis does not differ depending on what element triggers the constraint. Some previous work that mainly dealt with the Korean jussives (eg. Pak et al. 2008, Zanuttini et al. 2012), assumes that a Jussive projection has an interpretable person feature that is later assigned to the subject, and there exists a shiftable person feature in the embedded jussive head. According to the assumption, it is unavoidable to treat the jussives seperately from the volitive suffix -keyss and the SEPs, and devise an additional mechanism to explain the similar constraints of the other two constructions. To sum up, the proposed assumption of the Consciousness projection in the CP domain has an advantage over the previous studies with respect to theoretical parsimony.
References


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Footnotes

1 Gloss abbreviations that are used in this paper are as follows: ACC=accusative; ASS=assertive modality; CNJ=conjunct; DAT=dative; DEC=declarative; E=epenthetic morpheme; EXH=exhortative; IMP=imperative; INT=interrogative; LOC=locative; NOM=nominative, PL=plural marker, PRM=promissive; PST=past tense; VOL=volitive

2 Harley(1994) and Harley and Ritter(2002) suggest that Universal Grammar provides a geometry of morphological feature, that is motivated and constrained by fundamental cognitive categories such as reference, plurality and taxonomy, and the geometry imposes constraints on morphological paradigms and operations in languages. In the geometry, PARTICIPATION node encodes information with regards to grammatical person: Two dependents of the PARTICIPATION node, which are the speaker and the addressee, represent the first and the second person, respectively.

3 Note that the modal suffix -keyss has two different meanings: a volitive meaning and an assertive meaning as shown below.


I/You/Swuni-NOM lunch-ACC buy-VOL-DEC

‘I intend to buy lunch.’


You/Swuni/*I-NOM lunch-ACC buy-ASS-DEC

‘I guess that you/Swuni will buy lunch.’

It has been reported that both the volitive and assertive meaning of the suffix are grammaticalized from a futurative meaning, and the former historically precedes the latter (Im 2001). Although the two meanings came from the same origin and share a speaker/hearer-oriented nature (Park 2003), one meaning is clearly distinguished from the other in any given context
due to a subject restriction. It is only the volitive -keyss that requires its clausal subject to be a discourse participant (Koo and Lehmann 2010, Park 2003). Since the assertive -keyss has nothing to do with the subject constraint that has been the issue in this paper, I am concerned with only the volitive meaning of the suffix.

4 Like Korean, Japanese does show similar person restrictions in limited condition where a specific clause type marker, or modal marker appears in a clause. See section 1.4.3. in Miyagawa (2010) or Tenny (2006) for a list of Japanese examples.

5 For the gists of previous proposals, refer to section 3.

6 According to Mithun (1999), the term irrealis “portrays situations as purely within the realm of thought, knowable only through imagination (p. 173).” The jussives convey the irrealis modality in the sense that they are used with events that have not yet occurred.

7 According to Chomsky (2001), the Agree operation occurs when an uninterpretable feature finds a matching interpretable feature in the closest c-commanding node. It means that the probe has to be in a higher c-commanding position than the goal in order to undergo Agree. Thus, under Chomsky’s Agree system, it is impossible for the [uConsc: ] in the v head to form the probe-goal relation with the [POV] that is located in the higher node, Consc. However, I am here adopting an assumption of “upward probing” (e.g., Adger 2003, Baker 2008, Pesetsky and Torrego 2007, etc.), and assume that the uninterpretable Consc feature in the lower v head gets its value from the Consc head which is in the higher c-commanding position.

8 Park (2013) discusses the issue, paying special attention to the obligatory
control effects occur in the embedded contexts.