The Discourse Layer and Person Restrictions

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1. Introduction

We propose that the discourse layer above the matrix clause plays a stronger role in the syntax than previously thought. Specifically, we propose that certain anaphoric elements that can corefer with either the higher subject or indirect object can corefer with the speaker or addressee when they appear in the main clause. Thus, *discourse participants can enter into binding relations with anaphoric elements* the same way overtly represented R-expressions can. The consequence of this proposal is that analyses of binding based purely on movement (Hornstein, 2009, Kayne, 2002) are not tenable and that binding relations are part of UG.

Barrie & Kim (2014), following the work of Chou (2012) and Speas & Tenny (2003), propose that certain person restrictions in Korean jussives can be attributed to such an anaphoric element. Consider the following data. In (1) the subject of an imperative must be 2nd person. However, in the embedded imperative, (2), the subject corefers to the matrix indirect object rather than to the addressee.¹

(1) Chayk-ul ilk-e-la.
    book-ACC read-SSP-IMP
    ‘Read the book!’

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¹ We wish to thank the participants GLOW in Asia X (National Tsing Hua University, Hsinchu, Taiwan) where a previous version of this proposal was presented for helpful comments and suggestions. All errors are our own.

¹ Abbreviations that are used in this paper are as follows: ACC – accusative Case; ADDR – an addressee; CNJ – conjugations; COMP – complementizer; COP – copular; DAT – datives; DECL – declative; EPEN – epenthesis; IMP – imperative; nom – nominative Case; INT – interrogative; PST – past tense; SPKR – a speaker; SSP – speech style particle; TOP – topic marker
We do not spell out the full mechanism for their proposal here for reasons of space; however, roughly speaking, an anaphoric element in the left periphery seeks out the indirect object of the higher clause (which is the addressee if the anaphor is in the matrix clause). This ends up forcing a 2nd person/matrix indirect object reading on the relevant subject. Tenny & Speas also discuss the well-known case of shifted pronouns, where an embedded 1st person subject is coreferential not with the speaker, but with the superordinate subject. We discuss here another set of data from English and Korean in which specific predicates have person restrictions in the matrix clause that shift in a similar way as just described.

2. Background

2.1. Psychological Predicates in Korean

In general, psychological predicates (psych-predicates, henceforth) refer to predicates that are used to one’s state of mind, feeling, or emotion. Although the coverage of the term varies across languages and literatures, here we use the term to refer to the following predicates in Korean; the predicates share noticeable syntactic and semantic properties that will be discussed shortly.


Syntactically, the predicates show three common behaviors: (1) The subject is the experiencer of the predicate; (2) a theme argument is followed by a nominative Case marker; and (3) a progressive aspect cannot be marked.
On the other hand, since it is semantically odd for someone to describe one else’s state of mind, feeling, or emotion, what’s expressed by a psych-predicate is necessarily ascribed to a speaker (Pak, 1972). This semantic nature of the psych-predicates naturally leads a sentence that have the predicates behave in a parallel way to Korean jussives with respect to the person restrictions demonstrated in (1-2) above (Kim, 2014, Lee, 1999, Park, 2013, 이건수, 1993).

As in jussives, the matrix psych-predicate sentence must have 1st person subject, while the subject of the embedded psych-predicate clause always corefers to the matrix indirect object. More data will be discussed in detail in Section 3.

However, note that the predicates listed in (3) are no longer subject to most of the above-mentioned properties when they are followed by the light verb -ha ‘do.’

In (7), the subject is 3rd person, the theme is marked by an accusative Case marker, and the progressive aspect is used. The differences have been claimed to be attributed to a role of the light verb -ha ‘do’, but the issue is beyond our concern here. We will assume the absence of the light verb in the psych-predicate constructions in order to concentrate on our goal to
provide a syntactic analysis of the person restrictions that arise in the constructions.

2.2. Speech Act Participants

Since Speas & Tenny (2003) the idea that speech act participants are syntactically encoded has been fruitfully explored (Chou, 2012, Haegeman & Hill, 2013, Heim, Keupdijo, Lam, Osa-Gómez & Wiltshko, 2014). These proposals all vary in their implementation as to how to represent the speech act participants. In this investigation, we do not argue for one particular structure, rather we provide further evidence for the syntactic reality of the representation of speech act participants and explore the implications for this proposal for how elements sensitive to speech act participants function in embedded clauses. We illustrate a slightly modified form of the structure in Speas & Tenny, although as mentioned the discussion below is largely independent of how the speech act participants are structured at the left periphery.

(8) saP
    3
   SPKR
   3
   sa’
   3
   sa
   3
   ADDR
   3
   SA’
   3
   SA
   CP

On analogy with the vP/VP distinction the saP (‘little speech act phrase’) introduces the speaker and the SAP (‘(big) speech act phrase’) introduces the addressee. Again, the reader is invited to consult the references cited above for more details on the implementation of this structure and for a broad range of empirical illustrations beyond what is presented here.

3. The Data

This section presents data from English and Korean that illustrate how certain predicates that are sensitive to speech act participants in the matrix clause become sensitive to arguments of the superordinate clause in embedded constructions. Tenny (2006) presents similar data from Japanese; however we leave these out for reasons of space.
3.1. English

The evidential predicates *bet* and *guess* indicate the speaker has inferential evidence and is typically found only with a 1st person subject. (A 2nd person subject is available in interrogatives, but we abstract away from this for now.)

(9) I/*you/*John bet(s) it’s gonna rain this weekend. (* on evidential reading for 2nd and 3rd person)

Interestingly, when we embed ‘bet’ with this meaning, the subject of *bet* must be coreferential with the superordinate subject.

(10) John said *I/*you/he 1/*2 bet(s) it’s gonna rain tomorrow.

The following paradigm illustrates the same phenomenon with the evidential verb *guess*.

(11) a. I guess it’s gonna rain tomorrow.
    b. * John guesses it’s gonna rain tomorrow.
    c. John said he guesses it’s gonna rain tomorrow.

    In interrogatives, however, the subject is restricted to 2nd person in matrix clauses and the addressee in the embedded clause. Consider the following data.

(12) a. How much do you bet it’s gonna rain tomorrow? (* on other persons)
    b. John asked Mary 1 how much she 1 bets it’s gonna rain tomorrow.

(13) a. So, do you guess it’s gonna rain tomorrow? (* on other persons)
    b. John asked Mary 1 if she 1 guesses it’s gonna rain tomorrow.

We present here two more data sets that illustrate the same point. For many speakers, the idioms *for the life of me* and *it beats me* must refer to the speaker only. However, in an embedded clause the idioms must refer to the matrix subject (with the appropriate change in the pronoun). Again, consider the following examples.

(14) a. For the life of me I don’t know why Mary would do such a thing
    b. * For the life of him John doesn’t know why Mary would do such
a thing.

c. John said he doesn't know for the life of him why Mary would do such a thing.

(15)a. It beats me why John would do that.
b.* It beats Mary/her why John would do that.
c. Mary said it beats her why John would do that.

To briefly summarize, we have seen a number of expressions that require a 1st person subject in matrix clauses. When such expressions appear in embedded clauses they must be coreferential with the superordinate subject. Furthermore, when some of these expressions (the evidential verbs) are interrogative, the subject is 2nd person when the verb appears in the matrix clause. When the verb appears in an embedded clause, the subject is coreferential with the superordinate addressee.

3.2. Korean

In Korean, it is well known that certain psych-predicates are restricted to a 1st person subject in declaratives, (16) (Lee, 1999).

(16) Na-nun/*ne-nun/*Minswu-nun sakwa-ka coh-ta
I-TOP/*you-TOP/*Minsoo-TOP apple-NOM good-DECL
‘I/*you/*Minsoo like(s) apples.’

If this predicate appears in an embedded clause the situation changes. In (17), the subject of the embedded predicate is Minsoo rather than the speaker.

(17) Minswu-nun na-eykey sakwa-ka coh-ta-ko malha-yess-ta
Minsoo-TOP I-DAT apple-NOM good-DECL-COMP tell-PST-DECL
‘Minsoo1 told me that he/1/*I like(s) apples.’

Consider further the following data, some of which is slightly modified from Kim (2015).

I-TOP/you-TOP/Minsoo-TOP lately feel.lonely-DECL
‘I feel lonely lately.’
b. Ne-nun/*na-nun/*Minswu-nun yocum oylop-ni?
   You-TOP/I-TOP/Minsoo-TOP lately feel.lonely-INT
   ‘Do you feel lonely lately?’

c. Ne-nun/*na-nun/*Minswu-nun yocum elmana oylop-ni?
   You-TOP/I-TOP/Minsoo-TOP lately how.much feel.lonely-INT
   ‘How much do you feel lonely lately?’

   Jina-NOM Minsoo-DAT feel.lonely-DECL-CNJ tell-PST-DECL
   ‘Jina1 told Minsoo2 that PRO1/2 felt lonely.’

   Jina-NOM Minsoo-DAT feel.lonely-INT-CNJ ask-PST-DECL
   ‘Jina1 asked Minsoo2 if PRO2/1 felt lonely.’

To summarize, in both Korean and in English we see a set of predicates which, in matrix clauses, are restricted to 1st person in declaratives and to 2nd in interrogatives. In embedded clauses, the same predicates are restricted to the superordinate subject in declaratives and to the superordinate indirect object in interrogatives.

4. Setting up the Analysis

There are three ingredients for the analysis of the facts above, which we address in turn below.

(1) Discourse participants are represented in functional projections in the discourse layer above the highest ForceP (Haegeman & Hill, 2013, Heim et al., 2014, Speas & Tenny, 2003).

(2) There is an uninterpretable [uConsc: ] feature (referring to the “seat of consciousness”) on C (Barrie and Kim, 2014, Kim, 2015), which can be valued by an appropriate feature or left unvalued (Preminger, 2014).

(3) An optional Consciousness Phrase (ConscP) with interpretable features referring to the location of consciousness: the Point of View (POV, typically the speaker) and the Conferee (CONF, typically the addressee).
4.1. Discourse Participants

First, much recent discussion has centered on the representation of discourse participants in the left periphery. Although the proposals differ slightly in their implementation, what is important for our analysis that the speaker and the addressee are syntactically represented in functional projections above the CP. For completeness we show here the proposal of Heim et al. (2014) as it also addresses the role of the proposition, $p$, in the interaction between the discourse participants.

(20) Call on Addressee

$\text{3}$

$\text{CoA}$ Speaker Commitment

$\text{3}$

$\text{SC}$ $\text{CP}$

Following Heim et al. (2014) we assume the following designations for declaratives and polar interrogatives.

<table>
<thead>
<tr>
<th>S commitment</th>
<th>declarative</th>
<th>interrogative</th>
</tr>
</thead>
<tbody>
<tr>
<td>$p$ is true</td>
<td>I don’t know if $p$ is true</td>
<td></td>
</tr>
</tbody>
</table>

| CoA | believe $p$ | tell me if $p$ is true |

Observe that in declaratives the speaker, S, holds the knowledge that $p$ is true and calls upon the addressee, A, to accept this knowledge and add it to the common ground. In interrogatives, however, A holds the knowledge as to whether $p$ is true or not and the S calls on A to share this knowledge. Thus, in declaratives S is the seat of knowledge and in interrogatives the addressee is the seat of knowledge (in the sense of Speas & Tenny).

Consider now the situation in embedded clauses. Consider the following examples.

(21) a. I’m tired.

b. Pat told Alex that she’s tired.

As discussed above in (21)a the seat of knowledge is the speaker. In (21)b, however, the seat of knowledge of $p$ in the embedded clause is the matrix subject, Pat. We leave it to the reader to verify that the seat of knowledge in embedded interrogatives is the matrix indirect object.
Finally, Speas & Tenny also propose an Eval(uation)P(hrase) below the Discourse Participant phrases. EvalP contains an operator in its specifier that corefers to the Seat of Knowledge.

4.2. Consciousness

Previously (Barrie & Kim, 2014, Kim, 2014, 2015), we have proposed that C has an uninterpretable feature \([uConsc:]\) that is valued either as POV or as CONF. We do not recapitulate the arguments here but rather simply give the gist of the proposal. An optional Consc(iousness)P(hrase) encodes interpretable features: POV – point of view, relating to the speaker; and CONF – conferee, relating to the addressee. These features are anaphoric such that POV is coreferential with the superordinate subject or Speaker and CONF is coreferential with the superordinate indirect object or Addressee. This interpretable feature values the \([uConsc:]\) feature on C.

5. Analysis

We begin with a discussion of our previous analysis of jussives (Barrie & Kim, 2014, Kim, 2014, 2015). Kim and Barrie & Kim argue that Korean jussives are analyzed as follows. We restrict ourselves to the imperatives in (1) and (2) here. Isac (2012) argues that imperative mood arises from the combination of 2π and irrealis mood. We broaden this to CONF and irrealis mood, recalling that in the matrix clause, the Conferee is 2π. Consider the following structure.

\[(22)[CP\ Mood[IRR]-C[ucons:CONF]\ [MoodP tI\ [Consp\ Consc[CONF]\ [TP \ldots]]]]\]

Mood has undergone head movement to C, giving rise to the \(\text{IRR+CONF}\) feature bundle, interpreted as imperative mood. The \(u\text{Consc}\) feature on C is valued by the interpretable CONF feature on Consc. This CONF feature is an anaphor, which seeks out the superordinate indirect object. In example (1), the superordinate indirect object is the 2π feature in the Speech Act layer and in (2), the superordinate indirect object is Minsoo. The final crucial piece of the puzzle lies in feature inheritance (Chomsky, 2008). Since the features of C are inherited by T, the \(\varphi\)-features entailed by \(u\text{Consc}\) on C are inherited by T, thereby ensuring that the subject matches the relevant argument (1π or the matrix subject with POV; 2π or the matrix indirect object with CONF). See Kim (2015) and Barrie & Kim (2014) for more details.
Now, turning to the English and Korean data in sections 3.1 and 3.2, we propose that certain experiencer and evidential predicates can take either an experiencer v or an agentive v (as in the case of *coh* ‘good’) or can take only an experiencer v (as is the case for English *bet* and *guess*). In Korean, the experiencer v is phonologically null, while the agentive v is spelled out as *ha*. The experiencer v requires sentience and certain cognitive abilities. (See Stephenson, 2007 for an in depth semantic discussion of similar predicates involving taste.)

We propose that the experiencer v is endowed with the feature [Eval] and imposes an identity requirement on the external argument. Specifically, the external argument must corefer to the Eval operator in SpecEvalP, the element that possesses the seat of knowledge.

In matrix clauses, the POV is encoded in the discourse layer and is the Speaker, S. In embedded clauses, the POV is not encoded in the discourse layer but rather by the elements in the superordinate clause. The discourse layer is present only in the matrix clause. The Evaluation phrases are present in all clauses, however. Recall that the specifier of EvalP contains an operator that is bound by the argument that is the Seat of Knowledge. We have established that the Seat of Knowledge is the speaker in declaratives and the addressee in interrogatives. As Kim (2015) and Barrie & Kim (2014) discussed for jussives, we propose that when the indicative mood head raises to C the complex C head is spelled out as declarative if [uConsc:] is valued POV and as interrogative if [uConsc:] is valued CONF. This is summarized as follows.

\[
\begin{align*}
\text{(23)} & \quad C \ [\text{IND, } u\text{Consc:POV}] \ – \ \text{declarative} \\
& \quad C \ [\text{IND, } u\text{Consc: CONF}] \ – \ \text{interrogative}
\end{align*}
\]

We propose a similar approach for the operator in SpecEvalP. The Eval head has a [uConsc:] feature that is valued by Consc. If it is valued POV then the Seat of Knowledge is the superordinate Speaker. If it is valued CONF then the Seat of Knowledge is the superordinate Addressee.

Let’s consider first a matrix declarative. The Consc head possesses a [Consc: POV] feature. This head values the [uConsc:] feature on C. The Mood head with the feature [IND] undergoes head movement to C. This complex C head, with the features [IND] and [uConsc: POV], are interpreted as a declarative. The Eval head is valued as POV, meaning that the operator, the Seat of Knowledge, is the Speaker (encoded in the discourse layer, abbreviated as SapP). The external argument, introduced in SpecvP, is obligatorily coreferential with the operator in SpecEvalP, which in turn is coreferential with the Speaker.
Consider next the following schematic for an embedded question. The Consc head possesses a [Consc: CONF] feature. This head values the [uConsc:] feature on C. The Mood head with the feature [IND] undergoes head movement to C. This complex C head, with the features [IND] and [uConsc: CONF], are interpreted as an interrogative. The Eval head is valued as CONF, meaning that the operator, the Seat of Knowledge, is the Addressee, the superordinate indirect object (not shown). The external argument, introduced in SpecvP, is obligatorily coreferential with the operator in SpecEvalP, which in turn is coreferential with the Addressee.
This investigation adds to the growing body of evidence that the discourse layer figures prominently in UG and further demonstrates that anaphoric dependencies cannot be reduced to movement as no such movement can be posited to account for the anaphoric relations in (1), (9), and (16). Furthermore, such relations cannot be reduced to control (Madigan, 2008) since the relevant elements are found in matrix clauses and are often dependent on the embedded predicate (“bet in English, coh ‘good’ in Korean) rather than on the superordinate predicate. Also, such relations cannot be tied to specific person features (Zanuttini, Pak & Portner, 2012), since the person specifications shift in embedded clauses.

Rather, we have extended our previous analysis showing that syntactic properties of the embedded clause (in which anaphoric relations with the matrix clause are established) are mirrored in the matrix clause (in which the same anaphoric relations are established with the speech act participants in the discourse layer). Specifically, the investigation here looked at psych predicates in Korean and evidential predicates in English. In both cases the subject of such predicates in the matrix clause is 1st person in declaratives and 2nd person in interrogatives. In embedded clauses, the subject is the superordinate subject in declaratives and the superordinate indirect object in
interrogatives. These facts strongly model the same pattern for jussives previously examined by the authors and by numerous other researchers. Given the similarity in the data, the current study aims to present a unified analysis that makes use of the syntactic representation of speech act participants and consciousness features.

References


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