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Raising of major arguments in Korean and Japanese

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Abstract The question of whether languages like Korean and Japanese possess genuine instances of Subject-to-Object Raising (SOR) has been a matter of debate since Kuno (1976), as a number of the properties of the putative SOR construction in the languages differ from those found in languages like English, while others are shared between the languages. I argue in this paper that the paradoxical properties begin to fall into place once we posit that what undergoes movement in SOR in these languages is not the embedded subject, but the embedded Major Subject. The Major Subject is the initial Nom-marked DP in a Multiple Nominative Construction. It is shown that if we posit that the Major Subject raises in SOR, the unexpected properties of SOR can be accounted for. Under this analysis, SOR in Korean and Japanese conform to known constraints on A-movement taking place from the highest A-specifier (Major Subject) position of the embedded clause. It is the coindexation of the Major Subject with the predicate-internal position that gives rise to the illusion of non-locality. I then compare the analysis with an alternative base-generation analysis. While the two are roughly equal in terms of coverage, only the Major Subject raising analysis is able to account for properties of the raised nominal that could only have been determined in the embedded clause.

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1 Introduction – The status of subject-to-object raising in Japanese and Korean

Since Kuno (1976), the consensus opinion in generative inquiries of Japanese (and Korean) syntax has been that the case alternation on the embedded subject shown in (1a) and (1b) below is the counterpart in these languages of the English constructions in (2a) and (2b) respectively. That is, Japanese and Korean possess the Subject-to-Object raising construction (SOR) (and/or the Exceptional Case-Marking (ECM)/Long-Distance Agree construction). Hiraiwa (2002) and Tanaka (2002) for Japanese and S-M Hong (2005) for Korean are some recent examples of the dominant view.

(1)a. Cheli-nun Yenghi-**ka**   yenglihay-ss-ta-ko   mitnun-ta.   (Korean)
     C-TOP   Y- NOM   smart-PST-DECL-COMP   believe-DECL
     Cheli believes that Yenghi was smart.

  b. Cheli-nun Yenghi-**lul** yenglihay-ss-ta-ko   mitnun-ta.
     C-TOP   Y- ACC   smart-PST-DECL-COMP   believe-DECL
     Cheli believes Yenghi to have been smart.

(2)a. John believes (that) **he** is innocent.
  b. John believes **him** to be innocent.

However, Hoji (1991, 2005) (see also Saito 1983, Oka 1988, Sells 1990, Takano 2003) for Japanese and K-S Hong (1990, 1997) (see also P-Y Lee 1992) for Korean have challenged the conventional wisdom. These researchers take the construction in (1b) in Japanese/Korean not to be an SOR/ECM construction, but one where the accusative NP is base-generated in the matrix VP. In this view, (1a) and (1b) are not related syntactically by movement and/or optional case-assignment. In their recent book on raising and control, Davies and Dubinsky (2004, chapter 10) appear to side cautiously with these latter authors regarding Japanese. Independently of the fate of Japanese/Korean Subject-to-Object Raising, they show that a number of constructions in different languages previously analyzed as involving SOR do not seem to be raising/ECM constructions, but something else. Davies (2005) argues that a construction in Madurese previously taken to exemplify SOR involves a base-generated object in the upstairs clause, on a par with the similar English (Prolepsis) construction shown in (3) below.

(3)   I believe about/regarding Bill that he is responsible for the failure

In this paper, I show that while there is apparent, but often ignored, evidence indicating that (1b) may not be a typical raising construction, the evidence can be reinterpreted to support a raising analysis – if we posit that what undergoes raising is not the embedded subject, but the embedded Major Subject. A Major Subject is the

traditional designation for the 'extra' subject-like nominal of Multiple Nominative Constructions (MNCs). However, as argued by Heycock and Doron (2003), Major Subjects can be equated with subjects of categorical judgment sentences, or Categorical Subjects. Such subjects are not restricted to sentences with two subject-like nominals, as is well-known (Diesing 1992). The hypothesis that the construction in (1b) involves raising of the embedded Major and/or Categorical Subject accounts for many of the apparent problems for the raising analysis. In turn, it is supported by evidence showing that the Accusative-marked nominal in (1b) displays properties that could only have been determined in the lower clause. The argument for this position is made on the basis of detailed investigation of Korean. It is applicable to Japanese as well, insofar as the properties of the two languages parallel each other.

The organization of this paper is as follows. In Section 2, a number of properties of SOR in Korean and Japanese that appear to be problematic for the assumption that the languages possess a genuine SOR construction are introduced. In Section 3, the proposal is made that SOR in Korean (and Japanese) involves the raising of the embedded Major Subject. I demonstrate first that there is a correlation between the possibility of an embedded nominal – subject or non-subject – to undergo SOR and its ability to be expressed as a Major Subject. I then show how this analysis accounts for the apparent problems for the raising analysis of SOR. Section 4 compares the proposed analysis with an alternative, base-generation, analysis. I argue that while the two are largely equivalent in terms of descriptive coverage, the base-generation analysis suffers from a number of drawbacks which favor the raising analysis defended in the paper. Section 5 concludes the paper.

2 Apparent problems for the raising analysis of SOR

If we take the properties of the English construction in (2b) to be representative of SOR crosslinguistically, a number of properties of the Korean construction in (1b) appear to indicate that it may not be a canonical SOR construction.[1]

First, the complement clauses of SOR verbs are unreduced, finite clauses, unlike English. This is a possible problem for movement and/or case-marking, since it is commonly assumed that a finite clause boundary acts as a barrier to these dependencies. However, the problem is internal to some theoretical assumptions and may not be considered critical.

A second apparent problem stems from the fact that unlike the English construction in (2a) and (2b), Accusative-marking alternates with Nominative-marking on the complement subject. In other words, SOR is optional. These

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[1] The assumption that English SOR is canonical is by no means uncontroversial, as it may well be an accident of the history of inquiry into the construction. However, this position is widely accepted.

I will be using the term 'SOR' to designate the construction in question, without necessarily committing to a movement/raising analysis. What is at stake in this paper is the choice between SOR/ ECM/Long-distance Agree on the one hand, which all posit that the Acc-marked nominal is thematically (though not formally) licensed in the embedded clause, and base-generation analyses on the other, which posit that the Acc-marked nominal bears no thematic relation to the embedded clause.

properties don't bode well for some theoretical assumptions either. They seem to indicate that the complement subject has multiple cases and/or that the movement in question lacks a case-theoretic motivation. These too are problems for certain theoretical assumptions.

A third apparent problem is not so theory-centered. Unlike what is assumed in many previous investigations of SOR in Korean, we find that what raises in the SOR construction is not just the complement subject. Non-subjects of complement clauses can raise, as pointed out already in Yoon (1987) (see also K-S Hong 1990, 1997, J-M Yoon 1991). A range of non-subjects can be raised as shown below, where we annotate the sentences with the role of the raised nominal in the embedded clause. The complement clause without raising is given along with the SOR sentences for comparison.

(4)a. Initial DP in Possession-type MNC:
Na-nun **Cheli-lul** meli-ka coh-ta-ko mit-nun-ta.
I-TOP *C-ACC* *head-NOM* *good-DECL-COMP* *believe-PRS-DECL*
I consider Cheli to be smart.
cf.
Cheli-ka meli-ka coh-ta.
C-NOM *head-NOM* *good-DECL*

b. Initial scene-setting adverbial NPs:
Na-nun **LA-lul** (mikwuk-eyse) hankwuksalam-i kacang manhi santa-ko.
I-TOP *LA- ACC* *US-LOC* *Koreans-NOM* *most* *many* *live-COMP*
mit-nun-ta.
believe-PRS-DECL
I believe LA has the greatest number of Koreans in the US.
cf.
LA-ka/ey mikwuk-eyse hankwuksalam-i kacang manhi sa-n-ta.
LA -NOM/LOC *US-LOC* *Koreans-NOM* *most* *many* *live-PRS-DECL*

c. (Non-accusative) Object:
Na-nun **Pwukhansan-ul** mwul-i manhi nanta-ko sayngkakhanta.
I-TOP *Mt. Pwukhan-ACC* *water-NOM* *a.lot* *flow-COMP* *think*
I believe that there are a lot of springs flowing from Mt. Pwukhan.
cf.
Mwul-i **Pwukhansan-eyse/*ul** manhi nanta.
water- NOM *Mt. Pwukhan-LOC/*ACC* *a.lot* *flows*

Though it is known that raising need not be restricted to complement subjects in some languages (Choctaw, Kipsigis, for example), the range of embedded constituents that can apparently be raised in Korean seems larger than those in other languages. For movement/advancement analyses of SOR, non-subject raising would be problematic, as non-subject raising violates proposed constraints on such processes.[2]

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[2] Ura (2000) attempts to allow non-subject raising through the proposal of multiple specifiers, where languages with an extra specifier of TP allow non-subjects to utilize the position as an escape hatch. In that it implicates a higher, subject-like position, the analysis is similar to the proposal in this paper. However, we do not take the higher subject to be an escape hatch for movement, as will become clear.

While the problem of non-subject raising by itself does not seal the case against SOR, a number of additional properties, when taken together, appear to spell doom for the analysis. We turn to these below.

A fourth problem for the raising analysis of (1b) comes from the fact that SOR can target an embedded constituent within an island. Resumptive pronouns are acceptable for most speakers when the raised nominal is related to a position within an island (5), but even in the absence of island boundaries, as long as there is sufficient distance between the nominal and the constituent targeted for raising in the embedded clause (6).

(5) Na-nun **Yenghi-lul**$_i$ [[**e**$_i$/**kunye-ka** e   ha-nun]   il]-i
    I-TOP   Y-ACC   she-NOM   do-ADNOM work-NOM
    mopemcek-ila-ko   sayngkakhanta.
    exemplary-COP-COMP   think
    I think of Yenghi that the things she does are exemplary.

(6) Na-nun **Cheli-lul** hangsang **kunyesek-i** taytanhan malssengkkwuleki-la-ko
    I-TOP   C-ACC   always   the.guy-NOM   extreme   troublemaker-COP-COMP
    sayngkakhayssessta.
    had.thought
    I had always considered Cheli to be a real troublemaker.

Though the possibility of resumption by itself does not necessarily constitute evidence against the existence of a movement-like dependency, since there are Copy Raising constructions showing movement locality (Moore 1998, Potsdam and Runner 2001), resumption combined with lack of locality strongly suggests that movement might not be implicated in Korean/Japanese SOR.

A final category of apparent problems for the raising analysis of (1b) comes from the fact that non-raised (1a) and raised (1b) constructions differ in terms of a number of interpretive properties.

Idiomatic readings are not retained when subject idiom chunks undergo raising, as shown below (J-S Lee 1992).[3]

(7) Hankwuksalam-un cakun   kochwu-**ka** maypta-ko sayngkakhan-ta. → idiomatic, literal
    Koreans-TOP   small   pepper-NOM hot-COMP   thinks-DECL
    vs.
    …..cakun kochwu-**lul**   maypta-ko   sayngkakhan-ta. → *?idiomatic, literal
    small   pepper-ACC   hot-COMP   thinks-DECL

    Literal reading; Small peppers are hot.
    Idiomatic reading: Size/height is not a measure of toughness.

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[3] Bruening (2001) claims that for his Japanese informants, idiomatic readings survive under SOR. However, the idioms that he employed are not truly opaque in that the subject position of the sentential idioms contains a non-idiomatic slot. For example, the subject of the idiom *X-no kao-ga hiroi* ('X's face is wide') has a non-idiomatic slot. Besides, the judgment on whether idiomatic readings survive even with these idioms is controversial. A number of my Japanese informants (T. Nakamura, Y. Horikawa, K. Fujioka) report judgments that contradict Bruening's.

Persistence of idiomatic readings on the raised subject has been used as a key diagnostic of SOR, which distinguishes it from Object Control. As such, the fact that idiomatic readings are lost in apparent SOR in Korean (and possibly Japanese) appears to militate against a raising analysis.[4]

J-M Yoon (1989) pointed out another difference between (1a) and (1b). A raised indefinite subject differs interpretively from a non-raised one, as shown in the following pair of sentences modeled on Takano (2003).

(8)a. Kyengchal-i   myes-myeng-uy   namca-**lul**   peminila-ko   tancenghayssni?
    police-NOM   how.many- CL-GEN   man-ACC   culprit-COMP   conclude.INT
    How many of the men do the police consider to be culprits?

  b. Kyengchal-i   myes-myeng-uy   namca-**ka** peminila-ko   tancenghayssni?
    police-NOM   how.many- CL-GEN   man-NOM   culprit-COMP   conclude.INT
    How many men do the police consider to be culprits?

The raised nominal in (8a) is interpreted primarily in the specific (that is, partitive or presuppositional) sense, while the same nominal in a sentence without raising in (8b) is interpreted in the non-specific (that is, cardinal) sense.

O'Grady (1991) (see also J-G Song 1994) points out another interpretive difference between raised and unraised structures. He notes that (9a) with raising can describe a situation where, say, John wakes up at night upon hearing a noise and thinks that an intruder has broken in, but does not realize that it is his wife. (9b), by contrast, implies that John is aware that the one making the noise was his wife.

(9)a. John-un caki anay-**lul**   totwuk-i-la-ko   sayngkakhay-ss-ta.
    J-TOP   self   wife-ACC   thief-COP-DECL-COMP   think- PST-DECL
    John thought that his wife was the thief.

  b. John-un caki anay-**ka**   totwuk-ila-ko   sayngkakhay-ss-ta.
    J-TOP   self   wife-NOM   thief-COP-COMP   think- PST-DECL
    John thought that his wife was the thief.

The first reading is the *de re* reading. The second can be thought of as a *de se* reading, where the anaphor is under the scope of the higher intensional verb.

P-Y Lee's (1992) data shown below also involve the availability of *de re* readings. A 'mistaken identity' reading where John mistakenly thinks that the individual named Cheli is Tongswu (due to obstructed vision, for example) is felicitous with the raised version in (10a), but not (10b). The latter can be uttered

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[4] Another standard diagnostic of raising, the possibility of expletives, cannot be tested in Korean and Japanese as the languages lack expletives.

only if John believes that the individual named Cheli also goes by another name, Tongswu. That is, the *de re* reading is possible in (10a), but not in (10b).

(10)a. John-un Cheli-**lul**   Tongswu-la-ko   sayngkakhanta/hayssta.
        J-TOP   C-ACC   T-COP-COMP   *thinks/said*
        John thought that Cheli was Tongswu.

   b. John-un Cheli-**ka**   Tongswu-la-ko   sayngkakhanta/hayssta.
        J-TOP   C-NOM   T-COP-COMP   *thinks/said*
        John thought that Cheli was Tongswu.

Relative scope of quantifiers differs in raised and unraised structures. For example, the following examples from Japanese (Takano 2003, *via* Oka 1988) show that while a non-raised complement subject with a passivized embedded predicate commutes in terms of scope with a non-subject of the embedded clause (11a), a raised subject cannot. In other words, a raised nominal does not reconstruct to the embedded clause for the purposes of scope.

(11)a. Mary-wa   sannin-no   gakusei-**ga**   subete-no   sensei-ni   syookais-are-ru
        M-TOP   three-GEN   student-NOM   all-GEN   teacher-to   introduce-PASS
        bekida-to   omotteiru.
        should-COMP   thinks
        Mary thinks that three students should be introduced to all the teachers.
        three > every,   every > three

   b. Mary-wa   sannin-no gakusei-**o**   subete-no   sensei-ni   syookais-are-ru
        M-TOP   three-GEN student-ACC   all-GEN   teacher-DAT   introduce-PASS
        bekida-to   omotteiru
        should-COMP   thinks
        Mary believes three students to have been introduced to all the teachers.
        three > every,   *every > three

Reconstruction for bound variable readings is similarly barred in raising, as the following pair of Korean sentences illustrate. The bound reading of the anaphor *caki* is (somewhat marginally) possible in (12a), but absolutely ruled out in (12b), where raising has taken place.

(12)a. ?Na-nun caki   sensayng-uy chwuchense-**ka** citohaksayngtul-eykey
         I-TOP   self   teacher-GEN   letter-NOM   advisees-DAT
         kakkak   kongkay-toy-eyahanta-ko   sayngkakhanta.
         each   release-PASS-MUST-COMP   thinks
         I believe that their teacher's letters of recommendations should be released to each advisee.

   b. *Na-nun caki   sensayng-uy chwuchense-**lul** citohaksayngtul-eykey
         I-TOP   self   teacher-GEN   letter-ACC   advisees-DAT
         kakkak   kongkay-toy-eyahanta-ko   sayngkakhanta.
         each   release-PASS-MUST-COMP   thinks

In sum, a number of properties of Korean (Japanese) SOR seem surprising if indeed raising is what relates (1a) and (1b).

3 SOR in Korean-Japanese is raising of embedded major subject

I argue in this section that the generalizations noted as problematic for the raising analysis of Korean (Japanese) SOR are only apparent problems. The argument for this conclusion rests on the claim that SOR does not raise an embedded subject directly, but an embedded **Major Subject**. The term Major Subject is the designation for the initial Nominative-marked DP in an MNC, shown below.

(13)a. Cheli-ka(MS) apeci-ka(GS) pwuca-i-si-ta.
      C-NOM   *father-NOM*   *rich-COP-SUBJ.HON-DECL*
      Cheli's father is rich.

   b. I   hakkyo-ka(MS)   enehakkwa-ka(GS)   coh-ta.
      this   *school-NOM*   *linguistics-NOM*   *good-DECL*
      The linguistics department at this school is very good.

MNCs are characterized by the fact there is more than one subject-like constituent, the Major Subject (=MS) and the Grammatical Subject (=GS). A Grammatical Subject is the subject of the VP, an unsaturated predicate. The role of the Grammatical Subject is often borne by the external argument of the verb. A Major Subject is a subject on which the sentence consisting of the Grammatical Subject and VP are predicated. While sentences are thematically closed, in MNCs, sentences can be turned into predicates and that is why there can be two (or more) subjects. When sentences function as predicates, we call them Sentential Predicates. The choice of these terms (except for the term 'Grammatical Subject' for what is traditionally called 'Minor Subject') is strictly intentional. They are used to highlight the insights in traditional studies of MNCs that there is more than one subject-like constituent in these constructions.

As long recognized in both traditional and generative approaches to MNCs, the process of Sentential Predicate formation can be recursive, yielding more than one Major Subject and nested Sentential Predicates. For simplicity, I concentrate on MNCs with only one Major Subject. The discussion is not affected by this simplification. When there are multiple Major Subjects, only the first, highest, one undergoes SOR.[5]

A Major Subject occupies a position higher than the Grammatical Subject. I argue that all instances of SOR, even those that seem to target embedded subjects, target the Major Subject position. Thus, SOR in Korean/Japanese should be analyzed as the raising of a subject, albeit that of a Major Subject. Once this is recognized, most of the unexpected properties of Korean/Japanese SOR can be naturally accounted for.

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[5] I eventually part with tradition, however. As I argue later, the notion of Major Subject is generalized so that even in sentences with only one overt subject constituent the constituent may be either a Major Subject or a Grammatical Subject. I also argue that there are two distinct types of Major Subjects – a nominal (DP) subject and a non-nominal 'event' argument.

The key components of the analysis can be summed up as follows:

(14)

    a.   Verbs that govern SOR in Korean select complement clauses with a Major Subject (that is in construction with a Sentential Predicate) when SOR takes place.[6]

    b.   The Major Subject of the embedded clause, and not the Grammatical Subject, undergoes SOR, which is an instance of A-movement (J-M Yoon 1989, Yoon 2004a, b).

    c.   The Major Subject of the embedded clause may be coindexed with a null or overt pronoun within the Sentential Predicate. The coindexation, however, is not movement.[7]

    d.   The grammatical role of the gap/pronoun coindexed with the Major Subject is not restricted to that of Grammatical Subject, though often the Major Subject and the Grammatical Subject (or a constituent within the Grammatical Subject) are coindexed.

    e.   The Major Subject and the Sentential Predicate that is in construction with it must satisfy certain semantic conditions in order to be felicitous (Kuno 1973, J-M Yoon 1989, K-S Hong 1997, Yoon 2004a, b).

    f.   The position occupied by the raised Major Subject is a derived/non-thematic Major Object position in the matrix clause.

The following is a schematic representation of the derivation of Korean (Japanese) SOR, where we indicate Predicate Abstraction yielding a Sentential Predicate by a null Operator:

(15)
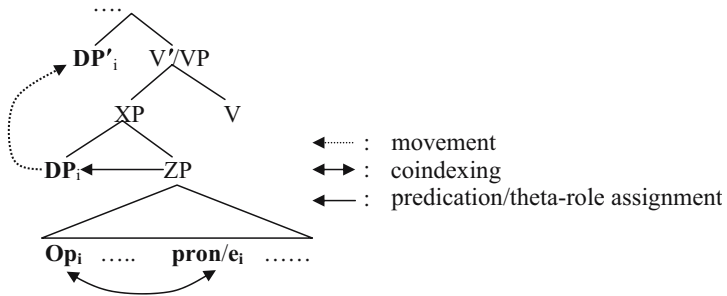
DP′:	The surface/derived Object position of moved Major Subject
DP:	Base position of the Major Subject
ZP:	Sentential Predicate
XP:	Sentential constituent containing a Major Subject and Sentential Predicate
Pron/e:	Constituent within Sentential Predicate coindexed with Major Subject

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[6] That is, sentences expressing a Categorical Judgment, in the terms we shall use subsequently. Complements of SOR verbs need not always express a Categorical Judgment. Thetic judgment sentences are also possible. However, when the latter type of clause occurs as complement, SOR is prohibited, as we shall see in detail subsequently.

[7] Major Subjects that do not bind a variable within the Sentential Predicate occur in the so-called Non-gap (or Adjunct-type) MNCs, as we shall see.

In what follows, I show that the proposed analysis of SOR in Korean/Japanese can insightfully explain a number of unexpected properties of SOR introduced in Section 2.

3.1 Restrictions on objects that undergo SOR

Recall that a *prima facie* problem for the raising analysis of Korean/Japanese SOR is that non-subjects, including Objects, seem to undergo raising (see 4). Since we know that in other languages SOR is restricted to complement subjects (and perhaps objects – see Davies 2005 for discussion), the fact that a variety of constituents that do not function as embedded subjects can seemingly undergo SOR appears to jeopardize the movement analysis of Korean/Japanese SOR. I argue that the problem can be resolved under the analysis proposed above. This is because non-subjects that appear to raise do not raise directly from within the complement clause. Instead, it is the Major Subject that is coindexed with the embedded non-subject constituent that undergoes raising. Thus, contrary to appearance, only embedded subjects (Major Subjects) raise in SOR.

In this section I will follow through a specific prediction that this analysis makes about non-subject raising. An embedded non-subject should be allowed to raise in SOR if and only if it can be expressed as an embedded Major Subject. This prediction is confirmed. The argument is developed on the basis of embedded Objects that appear to undergo raising.

Regarding the raising of Objects in SOR, many researchers who have cursorily examined the facts have assumed that embedded Objects cannot raise at all. The assessment cannot be correct, since we have seen felicitous examples of Objects raised in SOR earlier (4).[8] However, it remains a fact that compared to the raising of embedded subjects, non-subject raising is much more difficult. The question arises is why this should be so. I propose that the reason it is more difficult to raise embedded Objects is because MNCs possessing Major Subjects that are coindexed with an Object gap (or a gap within an Object constituent) are licensed under more stringent conditions than those where Major Subjects are coindexed with a Grammatical Subject or a constituent embedded within one. If so, and if SOR raises embedded Major Subjects, we can see why SOR of an embedded Object will be restricted. This is the argument I develop below.

In the vast literature on MNCs, it is commonly assumed that the Major Subject must be related to a Grammatical Subject. Examination of garden-variety MNCs appears to bear out this assessment. For example, (16) below is a representative MNC where the Major Subject binds a constituent within the Grammatical Subject:

(16) John$_i$-i(**MS**) [e$_i$ khi-ka](**GS**)   khu-ta.
    J-NOM   *height-NOM*   *great-DECL*
    As for John, his/the height is great (=John is tall).

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[8] For example, there is no mention of non-subject raising in J-S Lee (1992), and many objected to J-M Yoon's (1991) claim that embedded Objects can undergo SOR in Korean. However, as K-S Hong (1997) pointed out, these objections did not take into account the intricate factors we discuss here.

For Japanese, neither Tanaka (2002) nor Bruening (2001) report such data, while Takano (2003) and Hoji (2005) make much of such data as an argument against SOR being raising.

It is this type of sentence that figures prominently in the literature on MNCs. However, further examination reveals that Major Subjects need not always be related to a Grammatical Subject. There are MNCs – albeit not common – where the Major Subject does not bind a variable in (or within) the Grammatical Subject. And even when the Major Subject does bind a variable within the Sentential Predicate, the variable need not be in (or within) the Grammatical Subject position. (17a) and (17b) below are MNCs that contain Major Subjects that are not related to a position within the Grammatical Subject. The Major Subject binds the Object in these sentences and yet the MNCs are acceptable (Yoon 2004a).[9]

(17)a. Ilen   chayk-i$_i$(**MS**) [$_{SP}$ salamtul-i(**GS**) e$_i$ culkye   ilknunta].
   this.kind   book-NOM   *people-NOM*   *enjoying   read*
   As for/it is this kind of book (that) people enjoy reading.

   b. Mikwuk-yenghwa-ka$_i$(**MS**) [$_{SP}$ salamtul-i(**GS**)) enu   kukcang-eyse-na
   American-movie-NOM   *people-NOM*   *which   theater-LOC-ever*
   yocum   swipkey   e$_i$ po-l   swu iss-ta/po-n-ta].
   these.days   easily   *see-COMP   can   be-DECL/see-PRS-DECL*
   American movies can be seen by people in any movie theater.

By contrast, the following MNC with a similar structural profile (i.e., where the Major Subject binds an Object) is judged to be quite degraded by native speakers:

(18) *Mikwuk-yenghwa-ka$_i$(**MS**)   [$_{SP}$ John-i(**GS**) cikum   ce   kukcang-eyse
   American-movie-NOM   *John-NOM*   *now   that   theater-LOC*
   e$_i$ po-ko   iss-ta].
       see-COMP   be-DECL
   It is an American movie that John is watching in that movie theater now.

What is responsible for the difference between acceptable and unacceptable MNCs where the Major Subject binds an Object observed above? Following Yoon (2004a), I propose that the difference boils down to whether or not the Sentential Predicates in the MNCs in question satisfy the interpretive condition called the 'characteristic property' condition (*aka* 'Aboutness Condition') identified by Kuno (1973). That is, while the Sentential Predicates of MNCs in (17a) and (17b) predicate a characteristic, or distinguishing, property of the Major Subject, that in (18) does not. The property of John watching the movie right now in a theater is not a pragmatically plausible property that characterizes American movies, compared to the property of being able to seen in just about any theater in town.

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[9] The DP that functions as the Major Subject could not have been derived by scrambling in (17), since the predicates are Acc-assigning predicates. The alternative that takes Nom-case to be the realization of focus (Schütze 2001) does not work either, as Yoon (2004a, b) argues in detail. For one, if Nom-case on the initial DP in (17) is a realization of focus, there is no reason why (18) should be bad compared to (17a,b), since Nom-case has the option of being interpreted as a focus marker in all three sentences and focus is not restricted by the 'characteristic property' condition which restricts felicitous Sentential Predicates in MNCs.

Yoon (2004a) unpacks the factors involved in the 'characteristic property' condition into the following components:

(19)

   a.   Preference for generic/habitual versus episodic interpretation of Sentential Predicate
   b.   Preference for the lexical predicate within the Sentential Predicate to be an individual-level predicate
   c.   Preference for the Major Subject to be more salient than Grammatical Subject

As we can see, the MNCs in (17a,b) satisfy these preferences, while that in (18) does not.

We have just seen that MNCs where the Major Subject binds (into) an Object are possible. But why should they be more restricted than other types of MNCs where the Major Subject binds (into) the Grammatical Subject? I would like to offer the following, somewhat speculative, line of reasoning as a possible answer.

In an MNC like (16), the VP is predicated of the Grammatical Subject, the most salient argument of the verb, while the Major Subject is coindexed with a constituent within the subject. Note that the Sentential Predicate formation in MNC does not change the salience of the Grammatical Subject/external argument relative to the other arguments of the verb. In contrast, in the MNCs in (17), while the VP is predicated of the Grammatical Subject, the larger predication by the Sentential Predicate targets the Object, as the Major Subject is coindexed with it. This creates a potential conflict since predication by VP treats the Subject as salient while that by the Sentential Predicate treats the Object as salient.

If we understand the MNCs in (17) this way, we can see how the factors noted earlier help in the identification of a Sentential Predicate in such MNCs. All three factors mentioned above have the function of demoting the Grammatical Subject in salience relative to the Major Subject, thus facilitating the identification of the Sentential Predicate.[10]

Let us take stock of what we have done so far. First, we saw that the Major Subject in an MNC need not be restricted to binding (into) the Grammatical Subject. The variable within the Sentential Predicate, if there is one, can be in (or within) the Object position. Second, MNCs where the Major Subject binds (into) an Object are rare compared to those where it binds (into) the Grammatical Subject. I attributed this to the difficulty of constructing a felicitous Sentential Predicate that satisfies the 'characteristic property' condition in the former type of MNCs.

The necessary ingredients to explain (i) how an embedded Object can appear to raise in SOR, and (ii) why such raising is more restricted when compared to the raising of embedded subjects are now in place. The answer to both is grounded in the hypothesis that what undergoes raising in SOR is the embedded Major Subject. Major Subjects can be coindexed with Objects, but the coindexation is quite constrained.

Now that we have an explanation for the possibility of embedded object raising as well as the reason for its restricted distribution, let us turn to the evaluation of the specific

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[10] The constraints on the MNCs in (17) support the view that the initial nominal in these structures is a Subject, rather than a Topic or Focus (as claimed by some). In general, the presence of a salient, animate Subject does not interfere in the topicalization (or focalization) of non-subject constituents, because the two belong to different systems (A vs. A' system). In the case at hand, both Major and Grammatical Subjects are Subjects (belonging to the A system), and that is why the two are in potential conflict.

prediction of the Major Subject raising hypothesis – all and only embedded Objects that can be expressed as a Major Subject of the embedded clause will undergo SOR.

This prediction is not directly testable when we embed the MNCs in (17) and (18) introduced above under verbs that govern SOR. This is because while (20a) (the putative raised version of 17) is well-formed, so is (20b) (the putative raised version of 18). The prediction that only an Object that can be expressed as the Major Subject should undergo SOR seems to be falsified.

(20)a. Na-nun ilen chayk-ul salamtul-i culkye ilknunta-ko sayngkakhanta.
　　　I-TOP *this* *book-ACC* *people-NOM* *enjoy* *read-COMP* *think*
　　　I think that people like to read this kind of book.

　　b. Na-nun mikwuk-yenghwa-lul Cheli-ka cikum ce kukcang-eyse poko
　　　I-TOP *US-movies- ACC* *C-NOM* *now* *that* *theater-LOC* *see*
　　　issta-ko sayngkakhanta.
　　　is-COMP *think*
　　　I think that Cheli is watching an American movie in the theater right now.

Fortunately, we need not come to this conclusion. There is no reason to think that (20b) or (20a), for that matter, is derived by SOR. There is another parse of the sentences where they are derived by scrambling of the embedded Object. The two derivations (SOR derivation and Scrambling derivation) cannot be teased apart for these sentences. Therefore, what we need to test the prediction is the following. We need to find embedded clauses containing predicates that do not govern Accusative case on their Objects. If such Objects can show up Accusative-marked in a position preceding embedded clause constituents, the only way in which they could have gotten there is by SOR since Scrambling does not yield case alternations. Our analysis predicts that the raised non-accusative Object in such sentences should be expressible as a Nom-marked embedded Major Subject. I show below that this prediction is borne out.

(21a) is a sentence with the requisite properties. Availability of Acc-marking (which is unavailable without raising, as shown in 21b) and word order relative to the embedded clause show that the Acc-marked DP that is interpreted as the embedded Object in (21a) has undergone SOR. It is now predicted that the raised Object should be expressible as the Major Subject of the embedded clause. The prediction is borne out, as we see in (21c). I take (21a) to have the analysis sketched in (21d).

(21)a. Na-nun **Pwukhansan-ul** mwul-i manhi nanta-ko sayngkakhanta.
　　　I-TOP *Mt. Pwukhan-ACC* *water-NOM* *a.lot* *flow- COMP* *think*
　　　I believe that there are a lot of springs flowing from Mt. Pwukhan. (=4c)

　　b. Mwul-i Pwukhansan-**eyse/*lul** manhi nanta.
　　　water-NOM *Mt. Pwukhan-LOC/*acc* *a.lot* *flows*
　　　Many springs flow from Mt. Pwukhan.

　　c. Pwukhansan$_i$-i(**MS**) mwul-i e$_i$ manhi nanta.
　　　Mt. P-NOM *water-NOM* *a.lot* *flows*
　　　As for/it is Mt. Pwukhan (from which) a lot of springs flow.

　　d. Na-nun Pwukhansan$_i$-ul [e$_i$(MS) mwul-i e$_i$ manhi nanta-ko] ….

We have seen thus far that the constraints on the apparent raising of embedded Objects correlate with the constraints on the ability of a Major Subject to be coindexed with an embedded Object. I take this to be evidence that the raised non-subject in SOR is the embedded Major Subject that is coindexed with the non-subject constituent. In fact, the correlation between raising and Major Subjecthood extends beyond Objects, though we have focused on Objects in this section. As we saw earlier in (4), any embedded constituent that is not the Grammatical Subject and appears to undergo SOR is expressible as the Major Subject of the embedded Clause. Therefore, the following correlation holds:

(22) *Major Subject-SOR Correlation*
A nominal raised in SOR must be felicitous as the Major Subject of the complement clause.

3.2 Governedness of embedded predicates in embedded subject raising

In the previous section, I showed that non-subjects only appear to undergo SOR. It is the Major Subject coindexed with the non-subject constituent that is raised. In making this argument, I capitalized on the interpretive restrictions on the embedded clause in non-subject raising and the ability of the raised non-subject to be expressed as a Major Subject. A consequence of the proposed analysis is that embedded clauses in non-subject raising always possess two (or more) overt subjects – the Major Subject and the Grammatical Subject. And it is the former, structurally higher, subject that undergoes SOR.

The question that arises at this juncture is the following: what about clauses where embedded subjects are raised? Do such clauses also have two subject positions and is SOR restricted to the higher, Major Subject, position? I will defend an affirmative answer to this question in what follows.

A cursory examination of standard SOR sentences like (1b) may lead us to suppose that subject raising patterns differently from non-subject raising. That is, any embedded Grammatical Subject can be raised, perhaps on the strength of its subjecthood alone. However, a careful investigation of constraints on subject raising will reveal that this is not the case. In the previous section, we saw that there are restrictions on both the raised non-subject (that is, the Major Subject coindexed with it) and on the embedded clause in the case of non-subject raising. What leads me to hypothesize that raised subjects are no different from raised non-subjects is the following: even when an embedded subject undergoes raising, we find the same restrictions. I will interpret this to mean that both subjects and non-subjects raise from a higher, Major Subject, position and not from a lower, Grammatical Subject, position.

J-S Lee (1992) pointed out that embedded predicates in SOR are restricted. He claimed that only non-case-assigning predicates are allowed as the predicate of the embedded clause when SOR takes place (which for him targets only embedded subjects). That is, he claimed that unaccusative intransitives are possible as the predicate of the embedded clause, but not unergatives (if we assume they are potential case-assigners) or transitive verbs. However, when we examine the data systematically, we find that the actual generalizations are different.

Among intransitive verbs, individual-level predicates are optimal (23a,b), while stage-level intransitives are not (24a,b). Correlated with the restriction on the embedded clause predicate when SOR takes place is the interpretation of bare plural indefinite subjects (Diesing 1992). In (23), the subject is interpreted generically while in (24) it is interpreted existentially. Importantly, this restriction is in force only when SOR takes place, which is shown by the fact that (24a,b) without SOR (Nominative-marked embedded subjects) are acceptable.

(23)a. Cheli-nun tolkolay-**lul**/**ka**   phoyutongmwul-ila-ko   saynkakha-n-ta.
       C-TOP   *dolphins-ACC/NOM* *mammal-cop-COMP*   *think-PRS-DECL*
       Cheli considers dolphins to be mammals.

    b. Cheli-nun tolkolay-**lul**/**ka**   yenglihata-ko   saynkakhanta.
       C-TOP   *dolphins-ACC/NOM* *intelligent-COMP*   *thinks*
       Cheli considers dolphins to be intelligent.

(24)a. Cheli-nun tolkolay-*?**lul**/**ka**   pointa-ko   saynkakhanta.
       C-TOP   *dolphins-*?ACC/NOM* *visible-COMP* *thinks*
       Cheli considers dolphins to be visible.

    b. Cheli-nun tolkolay-*?**lul**/**ka** mwul-eyse   ttwie ollassta-ko   saynkakhayssta.
       C-TOP   *dolphins-ACC/NOM* *water-from*   *jump up.past-COMP* *thought*
       Cheli considered dolphins to have jumped from the water.

However, it is not that embedded stage-level predicates are ruled out altogether when SOR takes place. Even when the predicate is a stage-level intransitive verb SOR is possible as long as the entire VP of the embedded clause can be interpreted as predicating a characteristic property of the raised nominal. Thus, (25a,b) are acceptable. As expected, the raised bare plural subject is interpreted generically, rather than existentially.

(25)a. Cheli-nun tolkolay-**lul** yeki-se cal pointa-ko   saynghakhanta.
       C-TOP   *dolphins-ACC* *here-from* *easily*   *visible-COMP* *thinks*
       Cheli believes dolphins can be easily seen from here.

    b. Cheli-nun tolkolay-**lul** mwul-eyse nophi ttwieollul swu issta-ko saynkakhanta.
       C-TOP   *dolphins-ACC* *water-from high* *jump.up* *can* *be-COMP thinks*
       Cheli considers dolphins to be capable of jumping up high.

VPs headed by transitive verbs are also possible in embedded clauses so long as they can be interpreted as denoting a characteristic property of the raised nominal, as the contrast between (26a) and (26b) demonstrates.[11] Again, when SOR does not

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[11] Note again that the interpretation of the bare plural embedded subject in the felicitous raising sentence (26) is generic, not existential, confirming the property-denoting nature of the embedded predicate.

take place, there are no restrictions on the embedded predicate (see the Nominative-marked embedded subject in 26a,b).

(26)a. Cheli-nun wonswungi-*?**lul/ka** banana-lul   cikum   meknunta-ko sayngkakhanta.
       C-TOP   *monkey- ACC/NOM* *banana-ACC* *now*   *eat-COMP*   *thinks*
       Cheli considers a/the monkey to be eating a banana right now.

   b. Cheli-nun wonswungi-**lul/ka** banana-lul   cal   meknunta-ko sayngkakhanta.
       C-TOP   *monkey- ACC/nom* *banana-ACC* *well* *eat-COMP*   *thinks*
       Cheli thinks monkeys love to eat banana.

I claim that the restriction on embedded predicates when SOR takes place is none other than the 'characteristic property' condition that holds for Sentential Predicates in MNCs discussed in Section 3.1. There we noted that while individual-level predicates are preferred as the lexical predicate of MNCs, stage-level predicates are allowed as long as the entire Sentential Predicate can be construed as expressing a characteristic property of the Major Subject. What we have seen above is that even when there is a single subject in the complement clause of SOR verbs, the predicate in construction with that subject must satisfy the 'characteristic property' condition if SOR is to take place.

This invites the following question. Why must the embedded predicate of clauses satisfy the 'characteristic property' condition when SOR takes place, regardless of whether an embedded subject or a Major Subject coindexed with a non-subject undergoes raising? I propose that the answer lies in the fact that SOR targets **Categorical Subjects**.

A Categorical Subject is the subject of sentences expressing a **categorical judgment**, in the sense of Kuroda (1972) and Ladusaw (1994). Ladusaw (1994) reinterprets the stage-individual distinction in terms of the theory of judgment forms. Individual-level predicates occur in sentences expressing a categorical judgment, while stage-level predicates typically occur in those expressing a **thetic judgment**. In this sense, the categorical-thetic distinction is similar to the individual-stage distinction. However, the two cannot be equated. As Ladusaw (1994) shows, while lexically individual-level predicates are found in sentences expressing categorical judgments, sentences containing lexically stage-level predicates can express categorical judgments when the VP they head is construed as denoting a property.

As we have seen, the restriction on embedded predicates in Korean/Japanese SOR cannot be phrased in terms of the stage-individual distinction, since lexically stage-level predicates are possible in the embedded clause. However, we have also seen that when the embedded predicate is lexically stage-level, the entire embedded clause must be construable as stating a property of the raised nominal. The property-denoting restriction is in force when non-subjects appear to raise. It is also present when embedded subjects undergo SOR.

A logical interpretation of these observations is that verbs that govern SOR select embedded clauses construable as expressing a categorical judgment. In other words, SOR targets embedded Categorical Subjects. Heycock and Doron (2003) observe

that the Major Subject in an MNC has the interpretive properties of Categorical Subjects. Thus, it is not surprising that the Major Subject avails itself of SOR, regardless of whether it is coindexed with (a constituent within) the embedded subject or with a non-subject constituent. In embedded sentences without multiple subjects, the complement subject can undergo SOR as long as it is construable as a Categorical Subject.

However, this cannot be the end of the story. What needs to be explicated is what prevents embedded Thetic Subjects from undergoing SOR. We know that verbs governing SOR can take embedded clauses construable as expressing a thetic judgment when SOR does not take place (see 24 and 26a with nominative-marked embedded subjects). The fact that embedded Thetic Subjects cannot undergo SOR appears to undermine the movement analysis of SOR, since an embedded Thetic Subject is the highest A-specifier of the embedded domain in such cases.

I argue that the reason Thetic Subjects do not undergo SOR is because the positions of two types of subjects are different. Categorical Subjects – whether in MNCs or sentences with single subjects – are Major Subjects occupying the highest A-specifier position of the embedded clause. Thetic Subjects, by contrast, occupy a low subject position. I also hypothesize that there is a higher subject position in sentences expressing thetic judgment. It is the presence of the higher subject that prevents embedded Thetic Subjects from undergoing SOR. The different positions of two types of subjects are illustrated schematically below: [12]

(27)a. e(MS) **tolkolay-ka**(GS)   yeki-se   cikum   pointa.   (thetic subject)
            dolphins-NOM   *here-LOC* *now*   *visible*
        I can see some dolphins from here.

  b. **Tolkolay-ka**$_i$(MS) e$_i$(GS)   yeki-se   cal   pointa.   (categorical subject)
        dolphins-NOM   *here-LOC* *often* *visible*
        Dolphins can be easily seen from here.

I begin the argument for the analysis sketched above by noting that the inability of movement to target embedded Thetic Subjects is not restricted to Korean/Japanese SOR. There is another case where movement discriminates between Categorical and Thetic Subjects – Small Clauses in English (Basilico 2003).

As is well known, there are two types of SC's in English – verbal and adjectival SCs. One difference between the two types of SCs is that only the subject of adjectival SCs can undergo A-movement. Another difference is that adjectival SCs

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[12] Note that in this analysis all Categorical Subjects are treated as Major Subjects in terms of their position in the clause structure. In this I follow the suggestion of Diesing (1992) who posits that subjects in construction with individual-level predicates (which we are reinterpreting as subjects of categorical judgment) occupy a higher subject position, binding a PRO in the lower subject position.

An alternative worth exploring is that in sentences with a single overt Categorical Subject, the subject occupies a lower subject position (the position of the Grammatical Subject). Under this alternative, there could be some Categorical Subjects that are not Major Subjects. As far as I can tell, the subsequent argument is not affected by the existence of this alternative.

often express a categorical judgment, while verbal SCs seem to always express a thetic judgment.

(28)a. John was considered [$_{SC}$ t unreliable].   (categorical/adjectival SC)

   a′. We considered [$_{SC}$ John unreliable].

   b. *John was seen [$_{SC}$ t leave the room].   (thetic/verbal SC)

   b′. We saw [$_{SC}$ John leave the room].

It may seem that what is at stake is that subjects of embedded verbal SCs cannot undergo movement, while those of adjectival SCs can. However, this is not the case. There are certain adjectival SCs that express a thetic judgment (as can be ascertained by the generic vs. existential interpretation of bare plural subjects). In such cases, the embedded subject cannot move, as the following illustrates (Bill Davies and Stan Dubinsky, p.c.):

(29)a. We considered [firemen generally available].   (categorical/adjectival SC)

   a′. Firemen were considered [t generally available].

   b. We considered [firemen late this morning].   (thetic/adjectival SC)

   b′. *Firemen were considered [t late this morning].

The correct generalization is the following: an embedded subject of categorical SCs can be A-moved while a subject of a thetic SC cannot. Note that this contrast is exactly what we observed with SOR in Korean. Predicates that govern SOR select both categorical and thetic embedded clauses and yet only the subject of a categorical clausal complement can undergo raising.[13]

Basilico (2003) proposes to make sense of the English paradigm introduced above in the following way. First, he assumes that Categorical and Thetic Subjects occupy different positions, the former higher than the latter. He then makes the assumption that even in thetic sentences, there is a higher subject (Topic, for him) position. It is this subject which prevents the lower, Thetic, Subject from moving over it, as the movement in question would constitute a violation of Relativized Minimality (Rizzi 1990).[14]

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[13] The question that remains is whether the contrast in extraction of embedded subjects can be replicated with verbal SCs. In other words, as pointed out by a reviewer, do verbal SCs construed as expressing a categorical judgment permit embedded subjects to move?

The answer to this question hangs first of all on whether there are such SCs in the first place. The sentence in (i) below might be a relevant example:

(i)   The city made firemen wear protective gear.
(ii)   *Firemen were made [t wear protective gear].

If (i) is a verbal SC expressing a categorical judgment, the generalization that embedded categorical subjects can move is falsified. We must assume that in verbal SCs, there are factors over and above the thetic-categorical distinction that prevent subjects from moving. In adjectival SCs, by contrast, these factors must not be at play.

[14] Given that minimality is relativized to the type of intervener, what he is calling a Topic must be in an A-position in order to block A-movement. That is why I take his proposal to be equivalent to positing an extra subject position.

The proposal that a higher subject position exists even in sentences expressing a thetic predication is neither novel nor far-fetched. As Basilico (2003) notes, a number of researchers have defended such a position. In the terminology of this paper, a sentence expressing a thetic judgment can also be thought of as a Sentential Predicate, which is predicated not of a DP subject but a spatio-temporal event argument (Kratzer 1995) or a Stage Topic in the sense of Erteschik-Shir (1997) which occupies the higher, Major, subject position.

Basilico's (2003) analysis is straightforwardly applicable to Korean SOR. Let us assume with Basilico and other researchers that there are always two subject positions in a sentence – a higher, Major Subject, position, and a lower, Grammatical Subject, position. In a sentence expressing a categorical judgment, the higher subject position is filled by the Categorical Subject, while the lower subject position is filled by the Grammatical Subject (which may or may not be coindexed with the higher subject). In a sentence expressing a thetic judgment, by contrast, the high subject position is filled by the spatio-temporal event argument, while the lower subject position is filled by the Grammatical, Thetic, Subject. Because of the presence of the event argument in the higher subject position, raising of Thetic Subjects to the matrix VP is barred. The analysis is illustrated schematically below:

(30)

MS: Major Subject = Categorical Subject or Event Argument
GS: Grammatical Subject = Thetic Subject
WP: Landing site of SOR
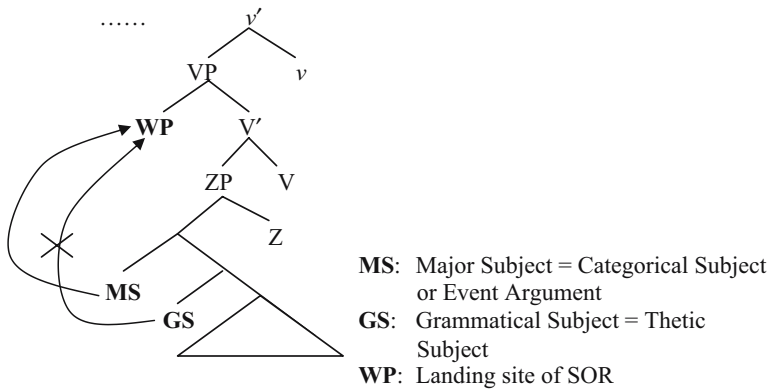
There is a potential complication in this argument, arising from the fact that in English, raising of subjects from complement TPs – as opposed to raising from complement SCs – is not sensitive to the categorical-thetic distinction (Basilico 2003):

(31) a. John was thought [$_{TP}$ e to intelligent].

b. John was thought [$_{TP}$ e to have left].

The question is why the distinction between categorical and thetic predications should not be similarly neutralized in Korean/Japanese SOR, as the complement clause in SOR constructions in the languages is clearly not a Small Clause.

The reason that the distinction is neutralized in raising from nonfinite complement TPs in English is attributable to the fact that all subjects in English must occupy Spec,TP, perhaps due to a 'strong' EPP feature that T has. Assuming that the event argument cannot satisfy the EPP in Spec,TP (Basilico 2003), the lower, Thetic, Subject must move to it. Once the lower subject is in Spec,TP, there is no obstacle to further movement of the subject to the upstairs clause, because Spec,TP is the highest A-position in the embedded domain. This is why the distinction is neutralized when a TP is selected by SOR verbs in English.[15]

In Korean (and Japanese), by contrast, there is ample evidence that subjects do not undergo obligatory EPP-driven raising out of vP/VP to Spec,TP. One particularly striking confirmation that the surface position of subjects is within vP is the following paradigm (Yoon 1994, Takano 2004):[16]

(32)a. [$_{CP}$[$_{TP}$[$_{vP}$ [$_{vP}$ John-i apeci-ka chencay-i]-ko [$_{vP}$ Mary-ka emeni-ka mi.in-i]]-ess]-ta].
　　　　　 J-NOM father-NOM genius-COP-CNJ M-NOM mother-NOM beauty-COP-PST-DECL

　　　 John's father was a genius and his mother was a beauty.

　 b. [$_{CP}$ [$_{TP}$ [$_{TP}$ John-i apeci-ka chencay-i-**ess**]-ko [$_{TP}$ Mary-ka emeni-ka mi.in-i-**ess**]]-ta].
　　　　　 J-NOM father-NOM genius-COP-PST-CONJ M-NOM mother-NOM beauty-COP-PST-DECL

In verbal coordination, tense and mood need not be expressed on all conjuncts. In particular, the non-final conjunct need not carry tense, in which case the tense expressed on the final conjunct has distributive scope over the entire coordinate structure.[17] The above researchers interpret this state of affairs to mean that the structure in (32a) involves coordination of vP, rather than TP. Now, what is relevant for us is that in this analysis the subject of the initial conjunct is within the vP. This must be possible since there is no obligatory raising of the subject to Spec,TP. Notice that the subject in (32a) is a Categorical Subject. This means that Categorical/Major Subjects and Thetic/Grammatical Subjects are both contained within the vP.

To summarize, I have argued in this section that the restrictions on embedded predicates when an embedded subject undergoes SOR imply that embedded subject raising is also the raising of the Major Subject. I argued that even in clauses with one subject constituent, there can be two distinct subject positions – the higher Major Subject position and the lower Grammatical Subject position. I then interpreted the restriction against raising embedded Thetic Subjects in SOR to mean that the Categorical Subject occupies a position higher than a Thetic Subject. To account for why Thetic Subjects cannot undergo SOR, I adopted the proposal that both categorical and thetic sentences possess two subject positions. That is, both types of sentences have Major Subjects. The

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[15] What then happens to the event argument of thetic sentences? Following Basilico (2003), we assume that it is bound off by T. Unlike Basilico (2003), however, we assume that such binding takes place only as a 'last resort' – that is, when the event argument cannot occupy the higher subject position.

[16] The assumption of lack of raising to Spec,TP is not uncontroversial. Miyagawa (2001) assumes that there is an EPP-driven raising in Japanese (and Korean). However, even in his account, the subject isn't the only constituent that can fill the EPP need of Spec,TP. Object scrambling is another way to satisfy that need. Therefore, the point that there is no obligatory raising of subjects to Spec,TP can be maintained.

[17] D-H Chung (2004) questions whether the untensed conjunct in (32a) is a vP. He argues that it is at least a TP, with a null tense that is interpreted as anaphoric to that on the final conjunct. W-S Lee (2003) argues that there are non-trivial problems with this proposal.

only difference is in what the Major Subject is. In categorical sentences, it is the DP on which the Sentential Predicate is predicating a property. In thetic sentences, it is a spatio-temporal event argument which cannot undergo SOR but can nevertheless spoil raising of the lower subject in virtue of its position.

In the next section, I show that the hypothesis that the embedded Major Subject raises in SOR allows us to account for another category of apparent problems for the raising analysis of SOR in Korean (and Japanese).

3.3 Locality violations

The lack of locality between the raised nominal and the gap/pronoun in the embedded clause in SOR (see 33 below) can also be accounted for under the hypothesis that what raises in SOR is the embedded Major Subject.

(33)a. Na-nun **Yenghi-lul**$_i$ [[**e**$_i$/**kunye-ka** e ha-nun] il]-i
   I-TOP   *Y- ACC*   *she-NOM*   *do-ADNOM* *work-NOM*
   mopemcek-ila-ko   sayngkakhanta. (=5)
   exemplary-COP-COMP   *think*
   I think of Yenghi that the things she does are exemplary.

   b. Na-nun **Cheli-lul** hangsang **kunyesek-i** taytanhan malssengkkwuleki-la-ko
      I-TOP   *C-ACC*   *always*   *the.guy-NOM* *extreme*   *troublemaker-COP-COMP*
      sayngkakhayssessta. (=6)
      had.thought
      I had always considered Cheli to be a real troublemaker.

I cannot do justice to the vast amount of literature on the structure and derivation of MNCs in Korean (and Japanese). Among many debated issues is the question of whether Major Subjects are base-generated or derived by movement. I believe that there are good reasons to believe that they are base-generated (Heycock 1993, Doron and Heycock 1999, Yoon 1987, 2004a). The most straightforward evidence for base-generation comes from MNCs where the initial NP is coindexed with a gap or a resumptive pronoun within an island, or where the Major Subject is not coindexed with any constituent within the Sentential Predicate, as we see below.[18]

(34)a. **Yenghi-ka** [[**e/kunye-uy** apeci-ka ha-si-nun] sa.ep]-i
   Y -NOM   *she-GEN*   *father* *do-HON-ADNOM* *business-NOM*
   manghay-ss-ta.
   go.bankrupt-DECL
   As for/it is Yenghi (that) the business her father was running went bankrupt.

   b. **Enehak-i**   chwuycik-i   yocum   elyep-ta.
      linguistics-NOM *employment- NOM* *these.days* *difficult- DECL*
      As for/it is in linguistics (that) getting a job is difficult these days.

If we hypothesize that what raises in SOR is the Major Subject, then we have a natural explanation for why the relation between the raised nominal and the

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[18] Again, versions with a gap in place of pronouns are degraded.

embedded gap/pronoun can violate Subjacency. This is a property attributable to the MNC construction that underlies SOR. It is the coindexation between the Major Subject and the constituent internal to the Sentential Predicate that is non-local. Movement of the Major Subject in SOR abides by Subjacency.[19]

3.4 Interpretive properties of the raised nominal

In Section 1 I noted that a raised nominal differs from its unraised counterpart in terms of a number of interpretive properties. I suggested that this is potentially a problem for the raising analysis of SOR (see Davies 2005 for a similar conclusion with respect to Madurese). However, if what I have argued thus far is correct, the wrong comparison was being made. The correct pairing of raised vs. non-raised structures should compare the properties of the raised nominal with those of the unraised embedded Major (Categorical) Subject. Once we do so, we see that a number of interpretive properties of the raised nominal that appear to militate against the raising analysis will be shown to be those that the unraised Major Subject has independently of raising. This line of explanation extends to most of the interpretive properties noted earlier. It does not, however, account for all of the discrepancies in interpretation, because unraised and raised Major (Categorical) Subjects can differ interpretively. I attribute the remaining differences to the effect that movement has on interpretive properties, in particular, the ability to reconstruct (lower) in movement chains.

3.4.1 Lack of idiomatic reading

It was noted earlier that raising an idiom chunk (subject) leads to the loss of the idiomatic reading, and I pointed out that this is a potential problem for the movement analysis of raising. Once we reinterpret SOR as raising of the embedded subject, however, this turns out not to be a problem anymore.

The fact that idiomatic readings disappear can be attributed to the Major Subject status of the raised nominal. A Major (Categorical) Subject is the subject of a Sentential Predicate. As such, it doesn't make sense to say something about (attribute some property to) a Major Subject that fails to denote or otherwise sets conditions on reference, such as an idiom chunk. It is not an accidental fact that most, if not, all idioms that have sentential form (Sentential Idioms) are used to describe or comment on a situation or an event, rather than predicating a property of an individual. Another way of putting it is to think of sentential idioms as thetic sentences predicated of an event argument. Since SOR is restricted to Categorical Subjects, we can understand why idiom chunks that are part of sentential idioms will fail to undergo raising.

3.4.2 Other interpretive differences attributable to Major Subject raising

In addition to differences in idiomatic interpretation, we saw the following interpretive differences between raised and unraised nominals:

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[19] In a similar vein, Han and Kim (2004) argue that Subjacency-violating "double relative clauses" in Korean should be analyzed as the Subjacency-observing relativization of Major Subjects of MNCs where the Major Subject is coindexed with a constituent within an island.

(35)

   a.   Raised bare plural subjects are interpreted generically – (23, 25).

   b.   Raised nominals do not reconstruct into the Sentential Predicate for scope – (11).

   c.   Raised nominals do not reconstruct into the Sentential Predicate for variable binding – (12).

   d.   Raised indefinites prefer to be interpreted specifically and as presupposed in SOR contexts – (8).

   e.   Raised nominals are interpreted *de re* in SOR contexts – (9, 10).

The first three properties are directly attributable to the fact that what undergoes raising in SOR is an embedded Major (Categorical) Subject. I already discussed the generic reading of raised bare plural subjects. In conjunction with the evidence coming from the restriction on the embedded predicates, I took this to be evidence that what undergoes raising is an embedded Major Subject, which, *qua* Categorical Subject, is interpreted generically when it is a bare plural. Existential readings are possible only for the unraised Thetic Subject, which cannot undergo SOR in Korean for reasons discussed in the previous section.

The second and third properties are also attributable to the Major (Categorical) Subject status of the raised nominal. Major Subjects always take wider scope than constituents internal to the Sentential Predicate. The reason for this is that a Major Subject is directly merged into its position rather than derived by movement from within the Sentential Predicate and because reconstruction is contingent on chains. The wide scope of the Major Subject over constituents within the Sentential Predicate is illustrated below:[20]

(36)a. Sey-myeng-uy   haksayng-i(**MS**) pwumo-ka(**GS**) enu   kyoswu-eykey-na
        three-CL-GEN   *student-NOM*   *parents-NOM*   *which*   *professor-DAT-ever*
        sokay-toy-ess-ta.
        introduce-PASS-PST-DECL
        → **three > every, *every > three**
        Three specific students' parents were introduced to every professor.

     b. Seymyeng-uy haksayng-uy pwumo-ka(**GS**) enu   kyoswu-eykey-na
        three.CL-GEN *student-GEN*   *parents-NOM*   *which*   *professor-DAT-ever*
        sokay-toy-ess-ta.
        introduce-PASS-PST-DECL
        → **three > every, every > three**
        Three specific students' parents were introduced to every professor.
        To each professor, three students' parents were introduced.

Since scope tracks surface hierarchy in sentences in active voice, (36) has the predicate in the passive voice. The Major Subject, even though related to the

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[20] A reviewer questions how the Major Subject *sey-myeng-uy haksayng-i* in (36a) can be a Categorical Subject. A number of facts suggest that it is, despite the fact that the lexical predicate of the embedded clause is not a stage-level predicate. First, the indefinite subject must be interpreted in the specific sense, whereas in (36b) it need not. Secondly, the Sentential Predicate is construed as stating a property. The property in question is that of the student's parents being introduced to professors. Though arguably not a characteristic property, it is nonetheless a property that distinguishes in a given context certain students from others. It is a 'characterizing' property, in the terminology of Yoon (2004b). Similar remarks are applicable to the Sentential Predicates in (38) and (39).

Grammatical Subject, does not scope below it in (36a). By contrast, in (36b), with only a Grammatical Subject, *sey-myeng-uy haksayng* 'three students' can scope out of the Grammatical Subject, taking wider scope relative to it.

Major Subjects do not reconstruct into Sentential Predicates for variable binding, again because they are merged directly in their surface position. (37a), though less than perfect, allows a bound reading of *caki*. This reading is much more difficult in (37b) where *caki* is contained within a Major Subject.

(37)a. ?Caki   sensayng-uy   chwuchense-ka   citohaksayngtul-eykey kakkak
     self   *teacher-GEN* *letter-NOM*   *advisees-DAT*   *each*
     kongkay-toy-eyahay-ss-ta.
     release-PASS-MUST-PST-DECL
     Their teachers' reference letters had to be released to each student.

   b. *Caki   sensayng-uy   chwunchense-ka(**MS**) wenpon-i(GS) citohaksayngtul-eykey
     self   *teacher-GEN* *letter-NOM*   *original-NOM* *advisees-DAT*
     kakkak kongkay-toy-eyhay-ss-ta.
     each   *release-PASS-MUST-PST-DECL*
     The originals of their teacher's reference letters had to be released to each advisee.

The difficulty of raised nominals to reconstruct for bound variable readings is directly of a piece with this fact.

The fourth property, the preference for a raised indefinite to be interpreted as specific, can also blamed on Major Subject raising (see J-M Yoon 1989). The following examples show that an indefinite Major Subject is interpreted strongly as specific:[21]

(38)a. Etten   haksayng-i(**MS**) apeci-ka(GS) hakkyo-ey cacwu   osin-ta.
     certain *student-NOM*   *father-NOM* *school-to* *often*   *comes-DECL*
     → **specific/*?non-specific**
     Some (specific) student's father often comes to school.

   b. Etten   haksayng-uy   apeci-ka(GS) hakkyo-ey osi-ess-ta.
     certain *student-NOM*   *father-NOM* *school-LOC* *come-PST-DECL*
     → **specific/non-specific**
     Some student's father came to school.

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[21] To highlight the interpretive differences between Major (Categorical) Subjects and Grammatical Subjects, we have employed MNCs with two overt subjects. However, there still is a consistent though subtle interpretive difference in clauses with one subject. A Categorical Subject differs from a Thetic Subject in terms of its preference for specific interpretation.

   (i) a. Etten   haksayng-i   pang-eyse   naka-ss-ta.   (thetic sentence)
        certain *student-nom* *room-from* *leave-pst-decl*
        Some student (specific/non-specific) walked out of the room.

     b. Etten   haksayng-i   totwuk-i-ta.   (categorical sentence)
        certain   *student-nom* *thief-cop-decl*
        Some (specific/*?non-specific) student is a thief.

Similarly, in contexts of amount quantification, a Major Subject is preferentially interpreted in the presuppositional (partitive) reading:

(39)a. Myes-myeng-uy   haksayng-i(**MS**)   pwumo-ka(GS)   chotaytoyessni?
     how.many-CL-GEN   student-NOM   parents-NOM   were.invited
     → **presuppositional**
     (Among the students) how many of them have rich parents?

    b. Myes-myeng-uy   haksayng-uy pwumo-ka(**GS**)   chotaytoyessni?
     how.many-CL-GEN   students-NOM parents-NOM   were.invited
     → **cardinal/presuppositional**
     How many of the students/how many students had their parents invited to the event?

We come to the final property – the availability of *de re* readings. This is not a property that can be blamed on the Major Subject status of the raised nominal, as the following sentence shows:

(40)   John-un caki anay-ka(**MS**) moksoli-ka(GS) cohta-ko   sayngkakhayssta.
       J-TOP   self wife-NOM   voice-NOM   good-COMP   thought
       John thought that his wife's voice was sweet.

Suppose John's wife is on the radio being interviewed. John listens to the interview in his car on his way to work but does not realize it is his wife. However, he does note the familiar melodious tone and thinks that the voice is sweet. The above sentence is not a very felicitous description of John's thought. This means that the Major (Categorical) Subject *caki anay-ka* (self's wife-nom) is not easily interpreted *de re* in the above sentence. Hence, the availability of *de re* interpretation with raised nominals is not attributable to the Major Subject status of the raised nominal.

I propose that *de re* readings on raised nominals is a consequence of raising/ movement instead. May (1977) noted that A-movement can facilitate *de re* interpretations:

(41)a. It is likely for a unicorn to be discovered.
    b. A unicorn is likely [t to be discovered].

While (41a) has primarily the *de dicto* interpretation (where the speaker is not committed to believing in the existence of unicorns), a *de re* reading is salient in (41b) (i.e., there exists a unicorn which is likely to be discovered).[22]

Modeled on the scope altering property of A-movement, we can account for the availability of *de re* readings on raised nominals in Korean SOR. SOR places the raised

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[22] The results would follow if scope were read off Chains created by A-movement, and not determined by an independent QR (Hornstein 1995). If QR could assign scope, and if it is not clause-bounded, there is nothing to rule out the indefinite in (41a) from undergoing QR to the matrix clause, outscoping the matrix predicate and yielding the *de re* reading.

embedded Major Subject in a position where it can scope over the matrix intensional verb (Spec,VP or a higher derived Object position). This is why SOR allows *de re* readings, compared to structures where SOR does not take place in which the matrix intensional predicate unambiguously scopes over the embedded Major Subject.

To summarize, I have shown in this section that the interpretive differences that seem to jeopardize the raising analysis of SOR receive an explanatory account under the hypothesis that the embedded Major Subject undergoes raising. All but one of the properties is directly attributable to the embedded Major Subject status of the raised nominal. And the final interpretive property, while not predicated on the Major Subject status of the raised nominal, does not endanger it either.

In the next section, I turn to the discussion of an alternative analysis of SOR – the Proleptic or Major Object Analysis where the Korean (Japanese) SOR is not taken to involve raising but base-generation of the 'raised' nominal in the upstairs clause from which it is coindexed with a variable in the embedded clause. I argue that while the analysis can explain a number of properties of SOR in Korean/Japanese discussed thus far, it suffers from theoretical and empirical drawbacks.

4 The proleptic object (Major object) analysis of SOR

As noted in Section 1, a number of researchers have responded to the differences between canonical SOR constructions in languages like English and those in Korean and Japanese by pursuing an alternative analysis where the SOR construction in the latter languages does not involve raising of an embedded subject but instead a base-generated nominal in the upstairs clause that is linked to a gap or a pronoun in the embedded clause. A hallmark of this line of inquiry is the following: (1a) and (1b) are not derivationally related.

As is easy to see, base-generation/coindexation analyses can deal with the following problems facing the raising/movement analysis:

(i)   Violations of movement locality between the 'raised' nominal and the embedded clause gap/pronoun
(ii) The possibility of resumptive pronouns in the embedded clause linked to the raised nominal
(iii) Wide scope of the raised object over embedded clause constituents
(iv) Non-subject raising
(v)   Failure of idiom interpretation
(vi) Additional interpretive differences

(i) is expected since the connection between the raised nominal and the embedded clause gap/pronoun is not one of movement. (ii) is attributable to this factor as well. (iii) is a consequence of base-generation. Since the nominal is never in the lower clause at any point in the derivation, it is expected to scope wider than embedded clause constituents and not reconstruct into the embedded clause. (iv) is expected since there is no movement link between the embedded constituent and the matrix nominal. (v) is expected since the idiom chunk will not form a constituent with the embedded clause. (vi), while not directly due to base-generation, is something that can be expected given the different base positions of the raised nominal and the embedded subject.

Though it seems at first glance that base-generation analyses are equal in coverage to the Major Subject raising account we defended earlier, once we try to flesh out the details of the analyses, we encounter non-trivial difficulties. There are different versions of the base-generation account. The first option is to view Korean (Japanese) SOR to be equivalent to Object Control. The second is to take it to be a type of raising construction that involves base-generated Chains – i.e., Copy Raising (Moore 1998, Potsdam and Runner 2001). The third and final alternative is to take SOR to instantiate what has sometimes been called Prolepsis (Takano 2003, Davies 2005). The line of analysis that Hoji (1991, 2005) calls the Major Object analysis seems closest to the third. I shall therefore class it as a Proleptic Object analysis.

The third analysis is the most commonly proposed base-generation alternative to raising accounts of SOR. Therefore, I shall choose this account and compare it with the Major Subject raising account defended earlier. Proponents of this type of analysis include Hoji (1991, 2005), Takano (2003) for Japanese, and K-S Hong (1990, 1997), P-Y Lee (1992), and J-G Song (1994) for Korean. I will argue below that the class of analyses faces non-trivial difficulties. First of all, theoretical problems crop up concerning how the Proleptic (Major) Object gets its theta role. Secondly, empirical problems arise from what I call the 'persistence of low properties'. The raised nominal displays certain properties that could only have been determined in the lower clause. The Proleptic (Major) Object analysis has no way of coping with such facts.[23]

4.1 Theta role of the proleptic (Major) object

One salient difficulty with the Proleptic (Major) Object analysis (abbreviated MOB henceforth, following Hoji 1991, 2005) has to do with the question of how the base-generated MOB gets its theta-role. As far as I can tell, the following options suggest themselves, since SOR is clearly distinct from Object Control where a matrix Object receives a theta role from the matrix predicate.

Thematic Licensing of MOB:

(a)   MOB obtains its theta-role through Chain Formation, as in Copy Raising
(b)   MOB is an adjunct and does not receive a theta-role from the matrix verb
(c)   CP becomes a predicate and assigns a theta-role to MOB (perhaps jointly with matrix V/V′–see below).

There may be other options, such as the possibility of a constructionally determined theta-role.[24]

I will not consider this alternative, as it is essentially non-explanatory. Of the options specified above, (a) and (c) take the MOB to be an argument occupying an A-position, while (b) takes it to be an adjunct.

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[23] As we shall see below, Korean does possess genuine Prolepsis structures, and some SOR structures can be parsed as a Prolepsis structure. However, the claim that all instances of SOR involve Prolepsis cannot stand.

[24] Kotzoglu and Papangeli (2005) propose a Proleptic Object analysis of Greek SOR/ECM but claim that the Proleptic Object receives a 'weak' theta-role from the matrix predicate. The latter assumption seems motivated by the desire to differentiate Object Control verbs from those that take part in SOR/Prolepsis. Option (c) does away with the need to posit such a theta-role and hence, seems to be a more desirable implementation of the Prolepsis analysis.

The first option is unworkable since the connection between the MOB and the embedded constituent can be non-local, whereas in Copy Raising it is local (Moore 1998, Davies 2005).[25] In addition, the SOR construction in Korean/Japanese does not possess other properties of CR constructions noted in Davies (2005).[26]

The second analysis bypasses the problem of theta-roles altogether, by assuming that the MOB is an adjunct. Since (at least in Korean) nominal adverbs can be case-marked (Kim and Maling 1993, i.a.), there is no *prima facie* difficulty for this analysis. However, the analysis is falsified (at least for Korean) by the fact that unlike adjuncts, the MOB undergoes Passive, a behavior restricted to arguments.

(42)a. Ceketo   John-un **Mary-lul**   minye-lako   sayngkakhay-ss-ess-ta.
       at.least   *J-TOP*   *M-ACC*   *beauty-COP.COMP*   *think-PERF-PST-DECL*
       At least John believed Mary to be a beauty.

    b. **Mary$_i$-ka**   ceketo   John-eykey-nun e$_i$ minye-lako   sayngkak-toy-ess-ess-ta.
       M-NOM   *at.least*   *J-by-TOP*   *beauty-COP.COMP*   *think-PASS-PERF-PST-DECL*
       Mary was believed to be a beauty by John at least.

Adjuncts do not undergo Passive even when they are nominal, as is well known:

(43)a. John lectured all day yesterday.
    b. *All day yesterday was lectured by John.

Neither does the P(roleptic) Object in English. Passive of (44a) is bad, with or without the Preposition accompanying the P-Object.

(44)a. John believed about/regarding Mary that she was a genius.
    b. *(Regarding/about) Mary was believed (by John) that she was a genius.

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[25] The nature of locality of Chain Formation in Copy Raising is not a matter on which there is consensus. I am assuming that the same constraints holding on overt NP/A-movement, that is, the TSC and SSC/Relativized Minimality, are applicable to Copy Raising. However, Moore (1998) argues on the basis of Turkish CR that the TSC is inapplicable to CR. And if Ura (2000) is correct, the existence of a higher Subject 'escape hatch' might allow certain types of CR to circumvent SSC/RelMin violations, yielding 'Super Raising'.

Nonetheless, in no reported cases does CR take place out of islands, whereas we have seen that the MOB in Korean and Japanese can be related to a constituent within an island in the embedded clause. This, together with properties discussed in the previous section, indicates that the CR analysis of Korean/Japanese SOR is not viable.

[26] Davies (2005) notes that only subjects can be involved in CR and that idiomatic readings are retained. As we have seen, Korean (Japanese) SOR is not restricted by these properties.

In this respect, Korean is like Madurese where the P-Object also undergoes a Passive-like alternation (Davies 2005).[27]

(45)a. Hasan   e-kera   Siti   bari'   [pro melle   motor].
      H   *OV-thinks* *S*   *yesterday* *he* *AV.bought* *car*
      Hasan was considered by Siti to have bought a car yesterday.

   b. Siti   ngera   Hasan   bari'   [pro   melle   motor].
      S   *av.think H*   *yesterday* *he*   *av.bought* *car*
      Siti thought that Hasan bought a car yesterday.

The third and final analysis is closest to the suggestion of J-G Song (1994) and O'Grady (1991), though neither develops the analysis in full detail. And, as the following quote shows, Hoji (2005) seems to be adopting a similar analysis.

"What thematic role, if any, does the MOB receive, and how?....We might assume that due to the formal (though presumably not structural) property of *NP-o* in the 'construction' in question (....), the grammar gives the following instructions to the language user:

(a)   *NP-o* in the 'construction' in question, i.e., MOB, denotes some entity about which one can hold some belief/assumption/judgment, etc. (depending upon the predicate used).

(b)   (What appears to be) the CP complement of the verb in the 'construction' in question denotes a property that can be attributed to some entity, reasonably and meaningfully." (Hoji 2005:18-19)

The key idea seems to be that the CP complement in MOB construction is property-denoting. In other words, it is a Sentential Predicate. Let's indicate the predicate status of the complement clause(=ZP) by a null Op(erator) binding a variable (indicated by e_i). I assume crucially that the abstraction in question is distinct from Control and can be non-local. In addition, it is not accomplished by movement, either.

The proposal that the embedded clause in SOR is property-denoting is something I have argued earlier. Therefore, this version of the MOB analysis is indistinguishable from the Major Subject raising analysis in this regard (as Hoji points out, p.c.). The difference between the two analyses resides in how the Sentential Predicate assigns its theta-role. In the MOB analysis as I construe it here, the Sentential

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[27] The result of the A-movement/GR alternation test implies that while the P-Object in English may be an adjunct, that in Madurese is not, and thus, that not all Prolepsis is created equal.

Davies's (2005, and p.c.) solution to the theta-role of the P-Object in Madurese is that a theta role is assigned to the object in the matrix clause in the same way that the Proleptic Object is presumably assigned a role in the English construction. Proleptic Object can always appear as PP where it presumably gets the necessary theta role. This is supported by the fact that in Madurese, when the Proleptic Object appears as subject or object, morphology on the verb required with prepositional objects is required (except for one verb).

Unlike Madurese, however, we cannot assume that the MOB in Korean receives a theta-role from the matrix predicate, given that there is clear evidence of a lower clause origin for the nominal.

Predicate assigns a theta-role directly (perhaps jointly with V) to the MOB base-generated in the matrix clause. In the Major Subject analysis we defended earlier, the Sentential Predicate assigns its theta-role to the Major Subject, which then undergoes raising to the matrix VP. The two analyses are illustrated below, where the solid arrow indicates theta-role assignment by the Sentential Predicate and the dotted arrow, movement.[28]

(46)
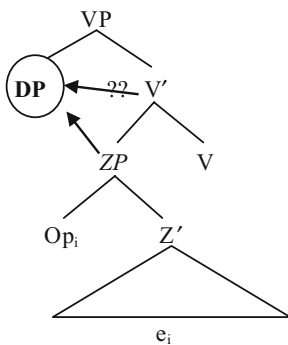
MOB Analysis: Major Subject Raising Analysis:
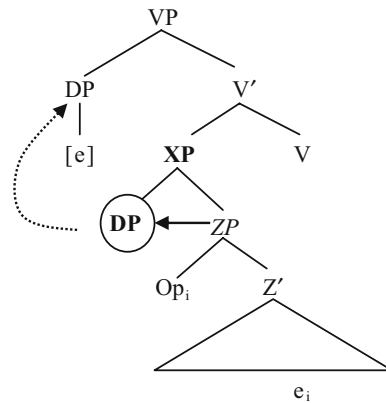
The crucial differences between the two analyses boils down to the answers to the following questions:

(a) Is the raised nominal related to a Subject(-like) position in the embedded clause?
(b) Is the raised nominal a constituent of the embedded clause at any stage of the derivation? I.e., is there evidence for a movement connection between the matrix DP and the embedded subject position?

The arguments in Section 3 pointed to the necessity to implicate a Subject(-like) position in all felicitous instances of SOR – namely, the embedded Major (Categorical) Subject position. Since the MOB analysis does not implicate such a position, it is difficult to see how the range of facts considered in Section 3 could be accommodated in this approach. The only option open under the MOB analysis is to impose the 'characteristic property' condition on the Sentential Predicate that gives the MOB its theta-role, perhaps as a constructional property (see quote from Hoji above). Though such a move begs the question of why the 'characteristic property' condition holds for the MOB construction and MNCs but not other constructions involving

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[28] The two options are not unlike two ways of thinking of Small Clauses, as sub-clausal versus clausal, except that here the clause that is posited not small, but 'super'-sized.

Sentential Predicates (such as relative clauses), once the condition is adopted, there is a way for the MOB analysis to incorporate many of the restrictions on SOR I blamed on Major Subject raising. Thus, the relevance of the 'characteristic property' condition does not by itself necessitate the presence of a Major Subject position.

In the following sections, I provide evidence that shows directly that there is an embedded Major Subject position which is connected to the matrix DP via movement. Unlike the interpretive restriction on embedded predicates, this category of evidence is difficult, if not altogether impossible, to incorporate into the MOB analysis, which posits that the MOB is base-generated in the upstairs VP in construction with a property-denoting embedded CP.

4.2 Proper binding condition

4.2.1 PBC in SOR vs. Object Control

The argument that SOR involves an embedded Major Subject and that the relation between the Major Subject and the matrix DP is one of movement comes from facts pertaining to the **Proper Binding Condition** (PBC). That a trace but not PRO induces PBC effects is well known, and is supported by the following contrast:

(47)a. *It is [t_i to be intelligent] that Bill$_i$ seems (to all of us).
    b. ?It is [PRO$_i$ to succeed in business] that Bill$_i$ (badly) wants.

Capitalizing on this difference, Tanaka (2002), following Kuno (1976) (see also Y-H Kim 1985 for Korean SOR), argues that the contrast between preposing the complement clause in an SOR construction and in an Object Control construction is due to the nature of the empty category – it is a trace of the subject in SOR while in Object Control, it is a PRO/pro coindexed with the matrix subject. A trace is subject to the PBC, and that is why there is a contrast between SOR and Control.

(48)a. ??[**t** acwu ikicek-ila]-ko   na-nun **Cheli-lul** sayngkakhanta.
          very selfish-COP-COMP I-TOP C-ACC think
        I consider Cheli very selfish.
    b. [**pro** cip-ey kala]-ko   na-nun **Cheli-eykey/lul** seltukhayssta.
           home-LOC go-COMP I-TOP C-DAT/ACC persuaded
        I persuaded Cheli to go home.

This argument is predicated on the existence of a subject position in the lower clause, a possibility that is denied in the MOB analysis. To the extent that it is successful, we have evidence for the existence of a low subject position and a movement link between the subject and the raised nominal.

Nonetheless, Hoji (2005) questions the validity of the PBC argument for the raising analysis of SOR. On the basis of acceptability ratings given by speakers, he claims that the prediction that PBC violations of SOR should be unacceptable is not supported. The reason is that speakers judge PBC-violating sentences with SOR as more acceptable than PBC violations with Scrambling but not SOR. PBC violations

in SOR (50a) and in Scrambling (49a) are given below (Japanese data, from Hoji 2005).

(49)a. *[John-ga e$_i$ nigeta-to]$_j$ **tyuugoku-ni$_i$** keisatu-wa e$_j$ danteisita.
   J-NOM   escaped-COMP China-to   police-TOP   concluded
   The police concluded that John had escaped to China.
   cf.
   b. Keisatu-wa [John-ga **tyuugoku-ni** nigeta-to]   danteisita.
   police-TOP J-NOM   China-to   escaped-COMP concluded

(50)a. ??[e$_i$ tyuugoku-ni   nigeta-to]$_j$ **John-o$_i$**   keisatu-wa e$_j$ danteisita.
   China-to   escaped-COMP   J-ACC   police-TOP   concluded
   The police concluded that John had escaped to China.
   cf.
   b. Keisatu-wa **John-o** tyuugoku-ni nigeta-to   danteisita.
   police-TOP J-ACC China-to   escaped-COMP concluded

Based on an average of raw scores across different subjects (ranging from +2 to -2), Hoji concludes that the prediction that PBC violations with SOR should be ungrammatical is falsified (average +0.28 for 50a), while that for PBC violations with simple Scrambling is supported (average -1.56 for 49a).

Though Hoji is to be commended for seeking experimental confirmation of intuition-based grammaticality judgments, there are quite a few shortcomings in his analysis. First, the results of simple magnitude estimation are hardly telling without further statistical analysis. Second, there is a principled reason why speakers give a more generous rating to (50a) compared to (49a).

Many of the matrix verbs that govern SOR have a usage where they take the Acc-marked DP as an argument. The argument can be marked by an adposition, as in English, but unlike English, Acc-marking is also possible. This is shown below.

(51)a. Ne-nun   Cheli-**lul**/Cheli-**eytayhay** ettehkey   sayngkakha-ni?
   you-TOP C-ACC/C-regarding   how   think-Q
   What do you think about/of Cheli?

   b. Na-nun Cheli-**lul**/Cheli-**eytayhay** kunyesek-i   tollassta-ko   sayngkakhay.
   I-TOP C-ACC/C-regarding   that.guy-NOM crazy-COMP think
   I think Cheli is crazy.

When such structures combine with *ko*-marked clauses (as in 51b above), a surface string that is identical to that derived by SOR can arise. I submit that this is a genuine Prolepsis (Major Object) structure, and this is what underlies the ameliorated judgments that speakers are giving for the PBC cases in (50a).

Does this mean that there is no way to discriminate between SOR and Prolepsis parses in all cases? Fortunately, the answer is no. There are sentences that could only have been derived by SOR. When such structures are examined, PBC effects surface robustly, as expected.

The Prolepsis parse of SOR structures is possible only when the Proleptic argument is a DP (and animate, preferably). Now, as we see in the next section, embedded non-nominative subjects can undergo SOR, showing up with Acc-case doubling the Dative or Locative assigned in the lower clause (52b). When PBC violations are induced on such structures, the results are uniformly bad (52a). Speakers I have consulted all agree that (52a) is much worse than (the Korean equivalent of) (50a). The reason is that being an inanimate and a PP, *yeki-pwuthe-lul* in (52a) does not stand a chance of being parsed as a Proleptic Object.

(52)a. *[e_i nay ttang-ila-ko]_j **yeki-pwuthe-lul_i** na-nun e_j mitnunta.
       my land-COP-COMP here-from-ACC I-TOP believe
  I believe my land begins from here.
  cf.
 b. Na-nun **yeki-pwuthe-lul_i** [e_i nay ttang-ila-ko] mitnunta.
    I-TOP land-from-ACC my land-COP-COMP believe

The contrast between SOR (50a) and Scrambling (49a) can be explained along the same lines. Note that the constituent that is responsible for the PBC violation in (49a), *tyuugoku-ni*, is an inanimate PP, while that in (50a), *John-o*, is an animate DP. Since Proleptic Objects must be DPs (that are preferably animate), it is not surprising that speakers perceive a difference between the two. Speakers are able to parse (50a) as a structure with a Proleptic Object, while that parse is unavailable for (49a). It is this difference that is responsible for the discrepancy in judgments.

In sum, while applauding efforts to ground intuition-based claims of acceptability on a firmer footing, I do not believe that the results of Hoji (2005) show that PBC violations of SOR are grammatical. At most, they indicate that some SOR sentences may optionally have a parse as Prolepsis constructions. It is this factor that interferes in the judgments of speakers. When this is controlled for, PBC violations of SOR are robustly judged as ungrammatical.

4.2.2 PBC with major subjects

Tanaka (2002), like others who assume a raising analysis of SOR, posited that the raised Object moves directly from within the embedded clause in SOR.[29] If his analysis is on the right track, we expect PBC effects to disappear if the gap position in the embedded clause is filled by a pronoun or if the embedded clause does not contain a gap (when the Major Subject of a Non-gap/Adjunct-type MNC is raised, as in 53b). This is because there would be no trace within the embedded clause that could incur a violation of PBC in such instances. However, this prediction is not borne out. Preposing the complement clause results in ill-formedness even when the

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[29] Since he was assuming that only embedded subjects undergo SOR, he proposed that SOR proceeded through an A-position type 'edge' in the embedded CP in Japanese.

complement clause contains a resumptive pronoun or appears to lack a gap altogether.[30]

(53)a. *?[Ku-uy apeci-ka pwuca-la-ko] na-nun **Cheli-lul** sayngkakhanta.
he-GEN father-NOM rich-cop-COMP I-TOP C-ACC think
I think that Cheli's father is very rich.
cf.
Na-nun **Cheli-lul** ku-uy apeci-ka pwuca-la-ko sayngkakhanta.
I-TOP C-ACC he-GEN father-NOM rich-cop-COMP think

  b. *[Maykcwu-ka choyko-la-ko] na-nun **yelum-ul** sayngkakhanta.
beer-NOM best-cop-COMP I-TOP summer-ACC think
I consider summer to be the best time for (a cold) beer.
cf.
Na-nun **yelum-ul** maykcwu-ka choyko-la-ko sayngkakhanta.
I-TOP summer-ACC beer-NOM best-cop-COMP think

Why should this be so? The proposed analysis provides a straightforward answer. Since I assume that SOR is derived by movement of the Major Subject, the fronted clause will contain the trace of the Major Subject – regardless of whether the gap position internal to the Sentential Predicate is filled by a pronoun, or whether the Sentential Predicate lacks a gap altogether. It is the trace of the raised Major Subject within the preposed constituent that incurs a PBC violation. The analysis of (53a,b) incorporating the trace of the embedded Major Subject is shown below.[31]

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[30] Again, we need to control for a Prolepsis parse of the relevant sentences. For example, assuming that *kiekhata* is an SOR verb, K-S Hong (p.c.) pointed out that the following is not as degraded as (53a,b).

(i) ?[Ku-uy apeci-ka pwuca-yessta-ko] na-nun **Cheli-lul** kiekhanta.
he-GEN father-NOM rich-was-COMP I-TOP C-ACC remember
I remember Cheli's father as (being) rich.

I contend that this is because *Cheli-lul* in (i) is more easily parsed as the Proleptic object of the matrix verb than in (53). The following contrast suggests that this line of thinking is on the right track:

(ii)a. Na-nun **cinan-cwu-pwuthe-lul** nalssi-ka coaciessta-ko kiekhanta.
I-TOP last-week-from weather-NOM became.better-COMP remember
I recall the weather started improving since last week (not this week).

  b. *[Nalssi-ka coaciessta-ko] na-nun **cinan-cwu-pwuthe-lul** kiekhanta.
weather-NOM became.better-COMP I-TOP last-week-from-ACC remember

Compared to (i), (iib) is distinctly worse. Why should this be? The reason is clear: while *Cheli* can be construed as the Proleptic Object of the verb *kiekhata* (remember), *ecey-pwuthe* cannot. The ill-formedness of (iib) is due to the trace of the Major Subject which violates PBC.

[31] An issue that remains is why PBC seems to hold in the fronting of predicative constituents in Japanese/Korean whereas it does not appear to in remnant topicalization in other languages (German, e.g.), as pointed out by Laurent Dekydspotter. I don't have a satisfactory answer to this question, but to the extent that PBC holds in Korean/Japanese, I can use it to diagnose the fine structure of the preposed complement clause in SOR.

(54)a. *?[t$_i$ [ku$_i$-uy apeci-ka pwuca-la-ko]] na-nun **Cheli-lul$_i$** sayngkakhanta.
　　　　　he-GEN father-NOM rich-COP-COMP I-TOP C-ACC think
　　　　　I think that Cheli's father is very rich.

　　b. *[t$_i$ [maykcwu-ka choyko-la-ko]] na-nun **yelum-ul$_i$** sayngkakhanta.
　　　　　beer-NOM best-COP-COMP I-TOP summer-ACC think
　　　　　I consider summer to be the best time for (a cold) beer.

In sum, the robustness of PBC effects in all genuine instances of SOR constitutes strong evidence that – (i) the embedded Major Subject position exists in SOR, and (ii) the connection between the embedded Major Subject and the SOR nominal is one of movement, rather than coindexation. It is not clear how the Major Object analysis can handle this, especially when we consider that genuine examples of Prolepsis are not sensitive to the PBC.

4.3 Persistence of low properties

Recall that the MOB analysis does not assume that the raised nominal in SOR is a constituent of the embedded clause at any stage of the derivation. However, the following suggests otherwise. While most cases of SOR involve a case alternation between Nominative and Accusative, a raised nominal in SOR can sometimes retain the case assigned in the embedded clause. This happens when a non-nominative subject of the embedded clause is raised and Accusative case stacks on top of the inherent case assigned in the embedded clause. In such cases, we assume that what undergoes raising is the Nom-stacked subject of the embedded clause. A Nom-stacked subject has been argued by Yoon (2004b) to be a Major Subject, and hence, available for raising in SOR. The analysis is shown below schematically:

(55)a. Na-nun Cheli-**hanthey$_i$-(man)-ul** [t$_i$(MS) [mwuncey-ka issta-ko]] mitnunta.
　　　　I-TOP C-DAT -(only)-ACC problem-NOM exist-COMP think
　　　　I think that only Cheli has problems.

　　a′. Cheli-**hanthey-(man)-i**(MS) mwuncey-ka issta.
　　　　C-DAT -(only)-NOM problem-NOM exist
　　　　Only Cheli has problems.

　　b. Na-nun yeki-**pwuthe$_i$-lul** [t$_i$(MS) [nay ttang-ila-ko]] sayngkakhanta.
　　　　I-TOP here-from-ACC my land-COP-COMP think
　　　　I consider from about here to be my property.

　　b′. Yeki-**pwuthe-ka**(MS) nay ttang-ita.
　　　　here-from-NOM my land-COP
　　　　From about here is my property.

Now, since the matrix predicates cannot take Dat-marked complements, the only source of Dative (and Locative) on the raised nominal is the embedded clause. The

MOB analysis has no way of dealing with this paradigm. This is because non-movement coindexing does not involve case transmission.[32] This is the first example of the 'persistence of low properties' in SOR.

A second example of the persistence of low properties can be found in the *de dicto/de re* readings. Recall that while many interpretive properties of the raised nominal in SOR are attributable to its Major Subject status, the preference for *de re* reading was argued not to be reducible to this factor. We argued instead that *de re* readings in SOR arise as a consequence of movement.

Now, what is interesting is that while *de re* readings are salient in SOR contexts, *de dicto* readings are by no means ruled out. They are just less salient. By contrast, when SOR does not take place, *de re* readings are not possible. The relevant examples are repeated below:

(56)a. John-un caki anay-**lul** totwuk-ila-ko sayngkakhayssta. → *de re > de dicto*
    J-TOP   self wife-ACC thief-COP-COMP thought
    John thought his wife was a thief.

  a'. John-un caki anay-**ka** totwuk-ila-ko sayngkakhayssta. → *de dicto, *de re*
    J-TOP   self wife-NOM thief-COP-COMP thought

  b. John-un Cheli-**lul** Tongswu-la-ko sayngkakhayssta. → *de re > de dicto*
    J-TOP C-ACC   T-COP-COMP thought
    John thought Cheli was Tongswu.

  b'. John-un Cheli-**ka** Tongswu-la-ko sayngkakhayssta. → *de dicto, *de re*
    J-TOP C-NOM   T-COP-COMP thought

In contexts of Control, where the controller nominal is not a constituent of the embedded clause at any stage of the derivation, *de dicto* readings are not possible, whereas in contexts of movement, the reading is possible, though less salient. This is shown below: [33]

(57)a. A unicorn is likely [t to be discovered]. → *de re > de dicto*
   b. A unicorn is anxious [PRO to be discovered]. → *de re, *de dicto*

Now, if the raised nominal in SOR is base-generated in the matrix VP as a MOB, we predict that sentences with raising should only have the *de re* reading (matrix VP reading), since the *de dicto* reading (embedded clause reading) arises when the DP scopes below the matrix verb, but there is no stage in the derivation of these sentences where the MOB DP is in such a position. This prediction is not supported,

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[32] Not usually, that is. It has been reported that Obligatory Control can involve case sharing in some languages. In cases of Obligatory Control, however, the case of the controller (the higher nominal) propagates to the controllee (the lower nominal). However, in the examples shown here, the case propagates from the lower position to the higher position, as the matrix verb does not govern Dat/Loc-case.

[33] This is true of English SOR/ECM as well. Both wide scope and narrow scope readings are possible for *nobody* in (i), though the wide scope reading may be more salient.
(i) Dulles believed nobody to be a spy before Johnson did.
=There is nobody that Dulles came to believe to be spy before Johnson did (**nobody > believe**)
=Before Johnson came to believe that nobody is a spy, Dulles came to that belief (**believe > nobody**)

as we have seen. I therefore take the availability of *de dicto* readings in SOR to be due to the low origin of the SOR nominal, as argued in this paper.

In sum, a key prediction of the MOB analysis – that the raised nominal should not evince any signs of having been derived from a lower position – is falsified. The persistence of 'low' properties argues strongly that the raised nominal is a dependent of the embedded clause at some point in the derivation.

5 Conclusion

In this paper I have argued that a number of properties that look problematic for a raising analysis of SOR in Korean and Japanese can be accounted for under the assumption that what undergoes raising is a high subject of the embedded clause – the Major (Categorical) Subject. I have compared the Major Subject raising analysis with a base-generation analysis and demonstrated that while the two are largely comparable in empirical coverage, the latter faces empirical and theoretical difficulties.

There are some broader implications of the proposed analysis. One consequence of the analysis has to do with locality constraints on A-movement. While SOR in Korean/Japanese seems to flout known constraints on A-movement, in particular, SSC/Relativized Minimality, I have shown that a closer investigation of the relevant facts allows us to maintain SSC as a constraint on A-movement. This is because there was no genuine raising of embedded constituents over a subject. In the absence of comparable investigations in other languages, I am not sure whether A-movement can never escape the domain of a subject in any language. However, at least one language that was considered to be an apparent counterexample (by J-M Yoon 1991, for example) is no longer a problem.

A second implication of the proposed analysis is that SOR may indeed implicate a higher subject position. This idea has been pursued in different forms by a number of researchers who have investigated non-canonical instances of SOR (Massam 1985, Deprez 1992, Ura 2000, Bruening 2001, etc.). Many such proposals utilize the higher position as an escape hatch for movement (Ura 2000), or posit mandatory raising from the higher subject position (Bruening 2001), with the result that the structure posited as the underlying source of SOR with the high subject position never surfaces overtly. This deficiency has been rectified in this paper. I have shown that in Korean and Japanese, such clauses do occur as complements of SOR verbs overtly, without SOR, because SOR is optional in Korean and Japanese.[34]

Interestingly, while the text analysis offers concrete proof that a higher subject position can be implicated in SOR in some languages, it does not support the view that the higher subject position functions as an escape hatch. The connection between the higher subject position and a constituent within the embedded clause that is coindexed with it was shown to be not one of movement. That is, there is no Chain linking the raised subject, the embedded high subject and the constituent internal to the embedded clause that is related to the high subject position. This is

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[34] This is possible because the embedded Major Subject can get Nom-case and since there is no ban on multiple case assignment in the languages (Yoon 1996).

unexpected on an account like Ura's (2000) that posits multiple specifiers. It remains to be seen how general this result is and whether other languages that have been reported to allow raising of embedded non-subjects in SOR can be similarly reanalyzed.

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