The Subject Condition and its Crosslinguistic Variation[*]

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1 Introduction

The Subject Condition (SC) has been approached from various perspectives (see, among others, Ishii 1997, Nunes and Uriagereka 2000, Stepanov 2001, Boeckx 2008, and Gallego and Uriagereka 2007), but these analyses coincide in one respect, *i.e.*, the SC effects are due to derived subject positions, which result in so called "freezing effects." Chomsky (2008: 147) challenges this view based on the internal/external argument contrast between (1) and (2), claiming that base subject positions matter for the SC effects:

(1) a. ****Of which car** did [the driver *t*] cause a scandal?
    b. ****Of which car** did [the picture *t*] cause a scandal?
(2) a.   **Of which car** was [the driver *t*] awarded a prize?
    b.   **Of which car** was [the picture *t*] awarded a prize?

  In (1), the *wh*-phrase *of which car* is extracted from the external argument; the result is deviant. In (2), on the other hand, the *wh*-phrase is extracted from the subject which originates as an internal argument; the result is acceptable. Chomsky argues that this internal/external argument contrast with the SC constitutes evidence for his theory of phase.
  There have appeared arguments against Chomsky's empirical generalization about the internal/external argument contrast, which undermines his phase-based analysis of the SC and supports the traditional "freezing" approach. First, Omaki (2006) and Boeckx (2008) report that many speakers they consulted regard examples like (2) as degraded. Second, when *which*-N phrases are replaced by simplex *wh*-phrases like *who(m)* and *what* as in (3), the internal/external argument contrast disappears or at least becomes less clear even for those who see the contrast between (1) and (2):

(3) a. ****Of whom** did [the picture *t*] cause a scandal?
    b. ****Of whom** was [the picture *t*] awarded a prize?

  Third, the sentential subject constraint holds even with an internal argument subject as shown in (4):[1]

(4) ***Which teacher** was [that the principal would fire *t*] expected by the
      reporters?

  These English facts strongly suggest that the internal/external argument
contrast does not exist, or at least the contrast is not so entirely clear as predicted
by Chomsky's (2008) new theory of phase.[2]
  This paper argues that unlike in English, Chomsky's generalization about the
internal/external argument contrast with the SC *does* hold in Japanese.
Assuming the traditional "freezing" approach to the SC, I will argue that
Japanese has a way of bypassing the "freezing effect" in terms of remnant
movement due to the availability of "A-scrambling" to the embedding VP edge
only when extraction takes place out of an internal argument. This accounts for
the crosslinguistic variation with the SC between English and Japanese. The
organization of this paper is as follows. Section 2 shows that contrary to the
widely accepted view that Japanese lacks the SC effects, there are cases in
Japanese where the SC effects appear. I will argue that the presence/absence of
the SC effects is an instance of the internal/external argument contrast. Section 3
introduces theoretical assumptions in this paper. Section 4 proposes a remnant
movement analysis of the SC in Japanese. Section 5 makes concluding remarks.

2   The Internal/External Argument Contrast with the Subject Condition in Japanese

Based on examples like (5), it has been widely assumed that there is a
crosslinguistic variation with the SC; while languages like English show the SC
effect, Japanese does not (see, among others, Kayne 1984, Lasnik and Saito
1992, Ishii 1997, and Saito and Fukui 1998):

(5) a. ? **Dare-ni** [John-ga [[Mary-ga   *t* atta] koto]-ga mondai-da to]
          who-DAT John-NOM Mary-NOM   met fact-NOM problem-is that
          omotteru] no
          think   Q
          Lit. 'Who, John thinks that [the fact that Mary met t] is a problem.'
     b. ? **Dare-ni** [John-ga [[Mary-ga *t* himitu-o   bakuro sita] koto]-ga
          who-DAT John-NOM Mary-NOM   secret-ACC disclosed   fact-NOM
          akiraka-da to] omotteru] no
          clear-is   that think   Q
          Lit. 'Who, John thinks that [the fact that Mary disclosed the secret to t]
          is clear.'

  In (5), *dare-ni* 'who-DAT' is scrambled out of the embedded subject. The results
are slightly degraded, but this is due to the fact that they involve extraction out

of the complex NP. Crucially, there is no subject-object asymmetry with respect to extraction; if a phrase is scrambled out of an object phrase, as shown in (6), the result is as degraded as that of extraction out of a subject phrase in (5):

(6) ?**Dare-ni** [John-ga [[Mary-ga *t* atta] koto]-o mondai-ni   siteiru] no
        who-DAT John-NOM Mary-NOM met fact-ACC problem-into making Q
        Lit. 'Who, John is making an issue out of [the fact that Mary met t].'

  Contrary to this widely accepted view, I observe that there are cases in Japanese where the SC effects *do* appear, as shown in (7):

(7) a.?* **Dare-ni** [John-ga [[Mary-ga   *t* atta] koto]-ga Bill-ni   dameezi-o
            who-DAT John-NOM Mary-NOM   met fact-NOM Bill-DAT damage-ACC
            ataeta to] omotteiru] no
            gave that think   Q
            Lit. 'Who, John thinks that [the fact that Mary met t] inflicted damage on Bill.'
      b.?* **Dare-ni** [John-ga [[Mary-ga   *t* himitu-o   bakuro sita] koto]-ga
            who-DAT John-NOM Mary-NOM secret-ACC disclosed   fact-NOM
            kaisya-ni   sonsitu-o motarasita to] omotteiru] no
            company-DAT loss-ACC brought   that think   Q
            Lit. 'Who, John thinks that [the fact that Mary disclosed the secret to t] inflicted loss on the company.'

  In (7), *dare-ni* 'who-DAT' is scrambled out of the embedded subject; the result is deviant or at least more degraded than (5). The difference between (5) and (7) resides in the type of the embedded predicate. The embedded predicates *ataeta* 'gave' and *motarasita* 'brought' in (7) are transitive; the embedded subject phrases in (7) are external arguments. I argue that the embedded predicates *mondai-da* 'is a problem' and *akiraka-da* 'is clear' in (5) are unaccusative and their sole arguments originate as internal arguments. Hence, the contrast between (5) and (7) shows that Chomsky's empirical generalization about the internal/external argument contrast with the SC *does* hold in Japanese.
  This view that the predicates in (5) are unaccusative is supported by the following facts. First, there is lexical semantic evidence. According to Kishimoto (2005), stative predicates in Japanese are unaccusative; the predicates in (5), *mondai-da* 'is a problem' and *akiraka-da* 'is clear', are stative, and hence unaccusative. Second, this view is also supported by Kageyama's (1993) case marker drop test. Kageyama argues that the case marker of an internal argument can drop whereas that of an external argument cannot. This case marker drop test indicates that the predicates in (5) are unaccusative, since -*ga*, which is assigned to their sole argument, can drop as shown in (8):

(8) a. Kimi-wa [[John-ga dono hon-o   katta koto]**-ga/*wa**/∅
         you-TOP   John-NOM which-book-ACC bought fact**-NOM/*TOP**/∅
         mondai-da to] nageiteiru/kuyandeiru no
         problem-is that deplore/regret   Q
         Lit. 'Which book do you deplore/regret that [the fact that John bought
         t] is a problem?'
     b. Kimi-wa [[John-ga nani-o   nusunda koto]**-ga/*wa**/∅ akiraka-da
         you-TOP   John-NOM what-ACC stole   fact**-NOM/*TOP**/∅ clear-is
         to] nageiteiru/kuyandeiru no
         that deplore/regret   Q
         Lit. 'What do you deplore/regret that [the fact that John stole t] is
         clear?'

  In (8), the nominative case marker *-ga* of the embedded subject phrase can
drop. It should be noted that the deleted marker cannot be the topic marker *-wa*,
since the embedded subject phrase can only be marked by *-ga* but not by *-wa*.[3]

3   Theoretical Assumptions

Section 2 has shown that the contrast between (5) and (7) is an instance of the
internal/external argument contrast with the SC. Before we turn to its analysis, a
few remarks should be made about theoretical assumptions in this paper.
  First, the discussion to follow assumes the traditional probe theory, which
claims that there is no feature inheritance mechanism; C has an edge-feature,
and T has an Agree-feature. Another assumption is that derivational steps are
strictly cyclic, and thus C and T do not probe "in parallel."
  Second, this paper assumes the traditional "freezing" approach to the SC; the
Spec of T is a "frozen" position. Hence, subextraction of an element out of the
subject phrase in the Spec of T is prohibited.
  Third, I assume with, among others, Grewendorf (2003) and Abels (2007a, b)
that there is a hierarchy of movement types which regulates the order of
application of movement operations globally, *i.e.* across cycles or phases,
including remnant movements. Although their hierarchies are different from
each other, they agree that so called "non-A-movement" is higher in the
hierarchy than "A-movement," which includes Case-driven movement and
Japanese short distance (clause internal) scrambling, as shown in (9):

(9) Non-A-movement > A-movement

  Following Abels (2007b), I claim that remnant movements are constrained by
the antisymmetric ordering between movement types (10) together with the
Minimal Link Condition (11):[4]

(10) Antisymmetric Ordering
    Movement of type X can be followed by remnant movement of type Y
    unless Y is a lower type than X.
(11) The Minimal Link Condition (MLC)
    H (K) attracts α only if there is no β, β is closer to H(K) than α, such that
    H(K) attracts β.   (Chomsky 1995: 311)

  The antisymmetric ordering can correctly rule in remnant movement cases like
(12a) and rule out remnant movement cases like (12b) (Abels 2007a: 7):

(12) a. A-movement -> Remnant non-A-movement
         It is known [[$_{AP}$ how likely t_1 to win]$_2$ Oscar$_1$ is t_2].
      b. Non-A-movement -> Remnant A-movement
        *[A picture of t_1]$_2$ is known [which king$_1$ to have been sold t_2].

  Müller's generalization, which requires that remnant creating movement and
remnant movement should not be of the same type as exemplified by (13),
follows from the MLC (Müller 1998: 201):

(13) *Wh*-movement -> Remnant *wh*-movement
    * [Which book about t_1]$_2$ don't you know [who$_1$ to read t_2]?

4   A Remnant Movement Analysis

This section proposes a remnant movement analysis of the internal/external
argument contrast with the SC in Japanese. Let us first explicate Japanese
scrambling. It is pointed out by Saito (1992; 2003) that short-distance (or clause-
internal) scrambling can be "A-movement" whereas long distance scrambling is
necessarily "A'-movement." This is supported by the fact that short-distance
scrambling can license anaphoric and bound variable interpretations as shown in
(14, 15) whereas long-distance scrambling cannot as shown in (16, 17):[5]

(14)?[**Karera**-o$_i$ [[**otagai**$_i$-no   sensei]-ga t_i hihansita]] (koto)
      they-ACC   **each other**-GEN teacher-NOM   criticized (fact)
      Lit. 'Them$_i$, [each other's teachers] criticized t$_i$.'
(15) **Dono hon-ni-mo$_i$**   [[**sono hon$_i$**-no   tyosya]-ga t_i keti-o tuketa]]
      which book-to-even that book-GEN author-NOM   gave-criticism
      Lit. 'Every book$_i$, [its$_i$ author criticized t$_i$].'
(16)*[**Karera**-o$_i$ [[**otagai**$_i$-no   sensei]-ga   [Tanaka-ga t_i hihansita to]
      they-ACC   **each other**-GEN teacher-NOM Tanaka-NOM   criticized that
      itta]] (koto)
      said (fact)
      Lit. 'Them$_i$, [each other's teachers] said that Tanaka criticized t$_i$.'

(17)?***Dono hon-ni-mo$_i$**   [[**sono hon$_i$**-no   tyosya]-ga [Hanako-ga t_i
    which book-to-even   that book-GEN author-NOM Hanako-NOM
    keti-o tuketa   to] itta
    gave-criticism that said
    Lit. 'Every book$_i$, its$_i$ author said that Hanako criticized t$_i$.'

  I observe, however, that long-distance scrambling can license anaphoric and bound variable interpretations when the pronoun appears within a matrix indirect object as shown in (18-21):[6]

(18) [**Karera**-o$_i$ [John-ga [**otagai$_i$**-no   sensei]-ni [PRO t_i homeru yooni]
    they-ACC   John-NOM **each other**-GEN teacher-DAT   praise to
    itta]] (koto)
    told (fact)
    Lit. 'Them$_i$, John told [each other$_i$'s teachers] to praise t$_i$.'
(19)?[**Karera**-o$_i$ [John-ga [**otagai$_i$**-no   sensei]-ni [Mary-ga t_i hihansiteiru
    they-ACC   John-NOM **each other**-GEN teacher-DAT Mary-NOM criticize
    to] tugeguti sita]] (koto)
    that told   (fact)
    Lit. 'Them$_i$, John told [each other$_i$'s teachers] that Mary is criticizing t$_i$.'
(20) **Dono hon-ni-mo$_i$**   [John-ga [**sono hon$_i$-no**   tyosya]-ni [PRO t_i
    which book-to-even John-NOM **that book**-GEN author-DAT
    keti-o tukeru   yooni] itta]
    gave-criticism to   told
    Lit. 'Every book$_i$, John told its$_i$ author to criticize t$_i$.'
(21)?**Dono hon-ni-mo$_i$**   [John-ga [**sono hon$_i$-no**   tyosya]-ni [Mary-ga t_i
    which book-to-even John-NOM **that book**-GEN author-DAT Mary-NOM
    keti-o tuketa   to] itta]
    gave-criticism that said
    Lit. 'Every book$_i$, John told its$_i$ author that Hanako criticized t$_i$.'

  The contrast between (16, 17) and (18-21) follows if we assume that long-distance scrambling may go through an "A-position" in the matrix VP domain as its intermediate landing site, which we assume is the matrix VP adjoined position for expository purposes. Let us consider the anaphoric relation facts (16) and (18) as examples, which are derived as in (22) and (23) respectively:

(22) [**Karera**-o$_i$ [[**otagai$_i$**-no   sensei]-ga$_j$ [$_{vP}$ t_j [$_{VP}$ t'_i [$_{VP}$ [Tanaka-ga t_i
    they-ACC   **each other**-GEN teacher-NOM   Tanaka-NOM
    hihansita to] itta]]]]] (koto)
    criticized that said   (fact)
(23) [**Karera**-o$_i$ [John-ga$_j$ [$_{vP}$ t_j [$_{VP}$ t'_i [$_{VP}$ [**otagai$_i$**-no   sensei]-ni [PRO t_i
    they-ACC   John-NOM   **each other**-GEN teacher-DAT

homeru yooni] itta]]]]]] (koto)
praise to   told   (fact)

In (22), scrambling of *karera-o* 'they-ACC' from the matrix VP adjoined
position to the sentence initial position, which is necessarily "A'-movement,"
cannot license the anaphor *otagai* 'each other' within the matrix subject phrase.
In (23), on the other hand, scrambling to the matrix VP adjoined position can be
"A-movement." This "A-movement" crosses over the matrix indirect object
phrase containing *otagai* 'each other', which licenses the anaphoric interpretation.
The variable binding facts can be accounted for in the same way.
  Turning now to the internal/external argument contrast with the SC in Japanese,
there is no way of deriving either (5) or (7) in terms of scrambling out of a
derived subject position (the Spec of T) due to the "freezing effect." There is,
however, an alternative derivation of (5) in terms of remnant movement. The
remnant movement derivation of (5a), for example, proceeds as below:

(24) a. "A-scrambling" of *dare-ni* 'who-DAT' to the Embedding VP Edge
            [$_{v}$P [VP **dare-ni$_1$** [VP [Mary-ga   *t$_1$* atta koto] mondai-da]] *v*]
                   who-DAT   Mary-NOM   met fact   problem-is
      b. Remnant "A-movement" of the Subject Phrase to the Spec of T
            [TP **[Mary-ga   *t$_1$* atta koto]-ga$_2$** [[$_{v}$P [VP dare-ni$_1$ [VP *t$_2$* mondai-da]] ...
                   Mary-NOM   met fact-NOM   who-DAT   problem-is
      c. [**dare-ni$_1$** [John-ga [[TP [Mary-ga   *t$_1$* atta koto]-ga$_2$ [[$_{v}$P [VP *t′$_1$* [VP *t$_2$* ...
            who-DAT John-NOM   Mary-NOM   met fact-NOM

In (24a), scrambling of *dare-ni* 'who-DAT' from its original position to the
matrix VP adjoined position can be "A-movement." This "A-movement" is
followed by remnant "A-movement" of the subject phrase *Mary-ga t$_1$ atta koto*
'the fact that Mary met *t$_1$*' to the Spec of T as shown in (24b). It should be noted
that this subject raising does not violate the Phase Impenetrability Condition if
we assume its less strict version advocated by Chomsky (2001; 2004), since it
allows T to probe into the complement domain of *v**/*v* even if both *v**P and *v*P
count as phases (Legate 2003). This derivation does not violate the
antisymmetric ordering (10), since both of the movement operations count as
"A-movement." Scrambling of *dare-ni* 'who-DAT' out of the subject in (24a) does
not violate the Minimal Link Condition (11) on the following grounds. Remnant
movement of the subject is triggered by the φ-features of T. It is debatable
whether scrambling is triggered by some feature, as argued by Miyagawa (1997),
or scrambling is not triggered by any feature, as argued by Fukui (1993) and
Saito and Fukui (1998). If scrambling is triggered by some feature, it is
controversial what feature triggers scrambling of *dare-ni* 'who-DAT' to the matrix
VP adjoined position. Putting these issues aside, it is clear that this scrambling is
not triggered by any φ-features. This is because given that φ-probing requires an

unvalued Case feature (Chomsky 2004; 2008), *dare-ni* 'who-DAT', which is assigned the dative case marker *-ni*, has already got its uninterpretable Case feature valued within the embedded clause; it cannot undergo any φ-feature-driven operation. Hence, scrambling of *dare-ni* 'who-DAT' and remnant movement of the subject phrase are not triggered by the same type of feature; there is no violation of the MLC. Finally, *dare-ni* 'who-DAT' undergoes scrambling from the VP adjoined position to the sentence initial position as shown in (24c). (24) does not violate either the antisymmetric ordering (10) or the Minimal Link Condition (11). (5a, b) are acceptable.[7]

Such a remnant movement derivation is not available to (7). Let us consider (7a) as an example, In order to derive (7a) in terms of remnant movement, *dare-ni* 'who-DAT' has to be scrambled out of the subject phrase in the Spec of v*, lowering to the VP adjoined position as represented in (25):

(25) [$_{v*P}$ [Mary-ga *t* atta koto] [$_{VP}$ **dare-ni** [$_{VP}$ Bill-ni dameezi-o ataeta]] v*]
         Mary-NOM   met fact   **who-DAT**   Bill-DAT damage-ACC gave

Such a "countercyclic" scrambling is banned by Chomsky's (2000) No Tampering/ Extension Condition, which informally states that once a structure is built, we cannot tamper with its internal arrangement. Hence, our analysis can account for the internal/external argument contrast with the SC in Japanese.[8]

A remnant movement derivation is not available to English *wh*-movement out of a subject which originates as an internal argument. In contrast to Japanese long-distance scrambling, English *wh*-movement does not license a bound variable pronoun inside an indirect object (Barss and Lasnik 1986: 348):

(26) a. ***Which paycheck**$_i$ did you deny **its**$_i$ owner t_i?
      b. ***Which lion**$_i$ did you show **its**$_i$ trainer t_i?

This indicates that unlike Japanese scrambling, English *wh*-movement does not go through any "A-position" in the VP domain as its intermediate landing site. Let me consider (3b) (repeated here as (27)) as an example:

(27)***Of whom** was [the picture *t*] awarded a prize?

The remnant movement derivation of (27) is represented in (28):

(28) a. "Non-A-movement" of *of whom* to the vP-edge
          [$_{vP}$ **of whom**$_1$ [v-was awarded [[the picture t_1] a prize]]]
      b. Remnant "A-movement" of the Subject Phrase to the Spec of T
          [$_{TP}$ **[the picture t_1]$_2$** [T [$_{vP}$ of whom$_1$ [v-was awarded [t_2 a prize]]]]]

This violates the antisymmetric ordering (10), since "non-A-movement" of *of whom* to the *v*P-edge is followed by remnant "A-movement" of the subject to the Spec of T, which is of a lower type than the first movement. Hence, (27) is deviant. The crosslinguistic variation between English and Japanese follows.

Finally, the internal/external argument contrast with the SC also appears with empty operator movement in Japanese, which is an "A'-movement." Among constructions which have been argued to involve empty operator movement (Kikuchi 1987, Takezawa 1987, Hoji 1990), I will consider as an example the cleft construction with a NP-Case focus (29):

(29) a. ?[*Op$_i$* [John-ga   Bill-ni [[Mary-ga *t$_i$* katta   koto]-ga mondai da to]
            John-NOM Bill-DAT Mary-NOM bought fact-NOM problem-is that
        itta] no]-wa   sono hon$_i$-o   da
        said COMP-TOP that book-ACC be
        Lit. 'It is that book$_i$ that John said to Bill that [the fact that Mary
        bought e$_i$] is a problem.'   (Ishii 1997: 143)
    b. *[*Op$_i$* [John-ga   Bill-ni [[Mary-ga   *t$_i$* katta   koto]-ga Suzy-ni
            John-NOM Bill-DAT Mary-NOM   bought fact-NOM Suzy-DAT
        dameezi-o   ataeta to] itta] no]-wa   sono hon$_i$ -o   da
        damage-ACC gave that said COMP-TOP that book-ACC be
        Lit. 'It is that book$_i$ that John said to Bill that [the fact that Mary
        bought e$_i$] inflicted damage on Suzy.'

One might wonder why the remnant movement derivation of (29a) does not violate the antisymmetric ordering (10). I argue that since scrambling is available in Japanese, the empty operator may first undergo "A-scrambling" out of the subject phrase to the matrix VP adjoined position and then "A'-movement" into the matrix Spec of C as represented in (30):

(30) a. "A-scrambling" of the Empty Operator to the VP-edge
        [$_{vP}$ [$_{VP}$ ***Op$_1$*** [$_{VP}$ [Mary-ga   *t$_1$* katta koto] mondai-da]] *v*]
                        Mary-NOM   bought fact problem-is
    b. Remnant "A-movement" of the Subject Phrase to the Spec of T
        [$_{TP}$ **[Mary-ga   *t$_1$* katta   koto]-ga$_2$** [$_{vP}$ [$_{VP}$ *Op$_1$* [$_{VP}$ ***t$_2$*** mondai-da]] *v*] T]
            Mary-NOM bought fact-NOM   problem-is
    c. [*Op$_1$* [John-ga Bill-ni [[[Mary-ga   *t$_1$* katta   koto]-ga$_2$ [$_{vP}$ [$_{VP}$ ***t'$_1$***...
            John-NOM Bill-DAT Mary-NOM   bought fact-NOM

In (30), scrambling to the matrix VP adjoined position, which can be "A-movement," is followed by remnant "A-movement" of the subject phrase to the Spec of T; this satisfies both the antisymmetric ordering (10) and the MLC (11).

This analysis gains support from variable binding facts (31):

(31) a.*?[***Op$_i$*** [[**soko-no kaisya$_i$-no** syain]-ga   Bill-ni [PRO ***t$_i$*** uttaeru to]
                that company-GEN   employee-NOM Bill-DAT   sue   that
            yakusokusita] no]-wa [zidoosya-gaisya-o   6-sya]$_i$ da
            promised   COMP-TOP automobile-company-ACC 6-CL   be
            'It is six automobile companies$_i$ that its$_i$ employees promised Bill to
            sue *e$_i$*.'
    b. ? [***Op$_i$*** [John-ga [**soko-no kaisya$_i$-no** syain-ni]   [PRO ***t$_i$*** uttaeru to]
                John-NOM that company-GEN employee-DAT   sue   that
            yakusokusita] no]-wa   [zidoosya-gaisya-o   6-sya]$_i$ da
            promised   COMP-TOP automobile-company-ACC 6-CL   be
            'It is six automobile companies$_i$ that John promised its$_i$ employees to
            sue *e$_i$*.'

  In (31a), the bound variable *soko-no kaisya* 'that company' is within the subject phrase; the result is deviant. In (31b), on the other hand, the bound variable is within the indirect object; the result is acceptable. This contrast in (31) follows if the empty operator undergoes "A-scrambling" to the embedding VP adjoined position, licensing the bound variable within the indirect object in (31b), and then undergoes "A'-movement" to the Spec of C, ruling out the bound variable interpretation of *soko-no kaisya* 'that company' within the matrix subject in (31a).

5   Conclusion

This paper has first shown that unlike in English, Chomsky's generalization with the internal/external argument contrast with the SC *does* hold in Japanese. Given the "freezing" approach to the SC, I have argued that Japanese has a way of bypassing the "freezing effect" in terms of remnant movement due to the availability of "A-scrambling" to the embedding VP edge only when a subject phrase originates as an internal argument. This accounts for the crosslinguistic variation with the SC between English and Japanese.

Notes

[1] This argument only holds if sentential subjects exist, as advocated by Delahanty (1983). See Koster (1978) for a different view.
[2] A question still remains why there is a contrast between (1) and (2) for some speakers. I leave this issue for future research.
[3] Note that verbs like *nageku* 'deplore' and *kuyamu* 'regret' are non-ECM verbs, as the degraded status of the ECM pattern (i) shows, Hence, the deleted marker in (8) cannot be the accusative case marker *-o*:

(i)   John-ga   [zibun-ga/??o   baka-datta to] nageiteiru/kuyandeiru (koto)
       John-NOM self-NOM/ACC fool-was that deplore/regret   (fact)
       'John_i deplores/regrets that he_i was foolish.'

[4] Abels (2007b) also proposes an alternative way of restricting remnant movements in terms of the asymmetric ordering, leaving open the question of whether the ordering of movement operations should be antisymmetric or asymmetric. The next section shows that the internal/external argument contrast with the SC in Japanese only follows from the antisymmetric ordering together with the MLC. If the analysis in this paper is on the right track, it presents evidence in favor of the antisymmetric ordering together with the MLC approach to the restriction on remnant movements.
[5] As pointed out by Saito (2005), it is controversial whether *otagai* 'each other' is an anaphor (Saito 2003), or contains a hidden pronoun that is subject to the licensing condition on bound pronouns as represented in *[pro [otagai]]* (Hoji 1997). Although the diagnostic tests to follow take Saito's view, we get the same result under Hoji view, though we have to use a quantificational expression as the antecedent of *otagai* 'each other' in diagnostic tests under the latter view.
[6] (19, 21), where the embedded subject is overt, sound less natural than (18, 20), where scrambling takes place out of a control complement. It should be noted, however, that there is a clear contrast between (16, 17) and (19, 21), which the present discussion takes as crucial.
[7] Note in passing that under the asymmetric ordering among movement types (see footnote 4), derivations like (24), where two operations of the same type are involved, would always be excluded, which is undesirable.
[8] If an element is allowed to undergo "A-scrambling" to the matrix VP edge, however, a question arises why scrambling from the matrix VP edge to the matrix TP edge, which counts as short-distance scrambling, is necessarily "A'-movement," since, as argued by, among others, Saito (1992; 2003), short-distance scrambling to the TP edge can be either "A-movement" or "A'-movement." If scrambling from the matrix VP edge to the matrix TP edge could be "A-movement," our analysis would allow an element to undergo "A-scrambling" out of a CP complement successive cyclically, leading to unwanted overgeneration. In order to avoid overgeneration, I claim that A-scrambling to the TP edge is lower in hierarchy than the other A-movements including A-scrambling to the VP edge, revising the hierarchy of movement types (9) into (i):
(i)   Non-A-movement > A-movement > A-scrambling to TP-edge

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