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Evidence for Feature-Driven A-Scrambling[*]

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1 Introduction

When faced with a set of observations that fail to jibe with existing theories, it can be tempting to treat them as properties of an entirely new phenomenon. This is an approach that has sometimes been taken in the literature on scrambling. For example, scrambling has been treated as a single type of movement, distinct from both A- and A-bar movement (Frank et al. 1996). Bošković & Takahashi (1998) propose that scrambling does not involve movement at all, but rather base-generation in the scrambled position. The goal of the present paper is to establish that at least one kind of scrambling displays a property characteristic of syntactic movement, namely, locality. In fact, this kind of scrambling (A-scrambling) respects the same locality condition as movement to the subject position: the closest NP is the one that moves to an available target position. In terms of the *Attract F* theory of movement (Chomsky 1995), scrambling is driven by a feature that attracts the closest NP.

The central empirical observations to be presented are given in (1) and (2). The examples in (1) show locality-compliant A-scrambling in Japanese. In general, the direct object can move to an A-position above the indirect object (1a), then again to an A-position above the subject (1b).

(1) a. Taroo-ga [**gakusei-o** [*otagai-no* sensei-ni][*t* syookaisita]].
T.-NOM   student-ACC eo-GEN teacher-DAT   introduced
'Taro introduced **the students**$_i$ to *each other's*$_i$ teachers.

b. **Gakusei-o** [*otagai-no* adobaizaa-ga] [*t* sensei-ni [*t* syookaisita]].
student-ACC eo-GEN advisor-NOM   teacher-DAT introduced
'*Each other's*$_i$ advisors introduced **the students**$_i$ to the teacher.'

What does not arise is A-scrambling that violates locality. In certain contexts, as shown in (2a), the direct object cannot move to an A-position above the indirect object. It also cannot skip over the indirect object to an A-position above the subject (2b). As a closer NP, the indirect object blocks movement of the direct object to this higher position.

(2) a.*Taroo-ga [**gakusei-o** [*otagai-no* sensei-ni <u>futari</u>][*t* syookaisita]].
T.-NOM   student-ACC eo-GEN teacher-DAT two   introduced
'Taro introduced **the students**$_i$ to <u>two of</u> *each other's$_i$* teachers.'

   b.***Gakusei-o**   [*otagai-no* adobaizaa-ga]   [sensei-ni <u>futari</u> [*t* syookaisita]].
student-ACC eo-GEN advisor-NOM   teacher-DAT twointroduced
'*Each other's$_i$* advisors introduced **the students**$_i$ to <u>two</u> teachers.'

The central claim to be made is that A-scrambling is feature-driven, so it obeys the locality condition built into the definition of Attract F:
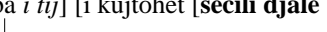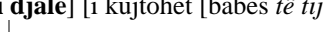
> K *attracts* F if F is the closest feature that can enter into a checking relation with a sublabel of K. (Chomsky 1995)

Where XP and YP each have a feature that K can check, (3a) shows local movement, which is possible under this definition, and (3b) shows nonlocal movement, which is impossible.

(3)   a. [___ K^0 [**XP** YP [*t*]]]]   b.   [___ K^0 [YP [**XP**]]]]

2 A- and A-Bar Scrambling

In some languages, scrambling can create new binding relations, a property associated with A-movement. Of course, not all scrambling behaves like A-movement. In Albanian, for example, scrambling is evidently A-bar movement, since it has no effect on binding relations (Massey 1992). A well-formed quantifier-pronoun binding relation (4a) is not disrupted by scrambling the object over the subject (4b). Moreover, such scrambling does not create new possibilities for quantifier-pronoun binding, as shown in (5).

(4) a. **Secilit djalë**   [i kujtohet   baba *i tij*].
each boy.DAT   CL remembersfather his.NOM
'**Each boy(x)** remembers *his(x)* father.'

   b. [Baba *i tij*] [i kujtohet [**secili djalë** [*t*]]].

(5) a.*Babës *të tij*   [i kujtohet   **secili djalë**].
father his.DAT   CL remembsseach boy.NOM
'*His(x)* father remembers **each boy(x)**.'

   b.*[**Secili djalë**] [i kujtohet [babës *të tij* [*t*]]].

However, in other languages, scrambling can create new possibilities for binding, as is illustrated by the Korean examples below (from Frank et al. 1996). In the unscrambled structure, a *wh*-object cannot bind a pronoun embedded in the subject (6a). However, if the object scrambles over the subject, it can bind the pronoun (6b). In other words, scrambling repairs the Weak Crossover violation in (6a). A similar situation arises when the direct object scrambles over the indirect object, as shown in (7).
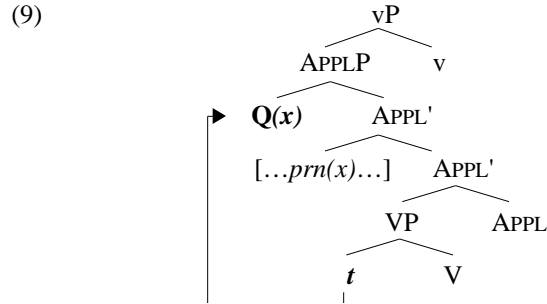
(6) a.*[*pro* chinkwu]-ka [**nwukwu-lul** paypanhayss-ni].
      friend-NOM   who-ACC   betrayed-Q
      '**Who(x)** did *his(x)* friend betray?'

   b. **Nwukwu-lul** [*pro* chinkwu]-ka [**t** paypanhayss-ni].

(7) a.*Kim pancang-i [*pro* iwus]-eykey [**nwukwuna-lul** sokayhayssta].
      K. d.-c.-NOM   neighbor-DAT   everyone-ACC   introduced-Q
      'District chair Kim introduced **everyone(x)** to *his(x)* neighbor.'

   b. Kim pancang-i **nwukwuna-lul** [*pro* iwus]-eykey [**t** sokayhayssta].

The proposed derivations for these sentences are given below. I assume the subject originates in a *v*P-internal position and raises to the syntactic subject position in spec-TP to check Case and EPP.[1] The object scrambles to a second specifier of TP. This movement is local: the subject is already in spec-TP, so it does not block attraction of the object. I assume that scrambling is driven by a feature (Scr) that attracts the closest NP.

(8)
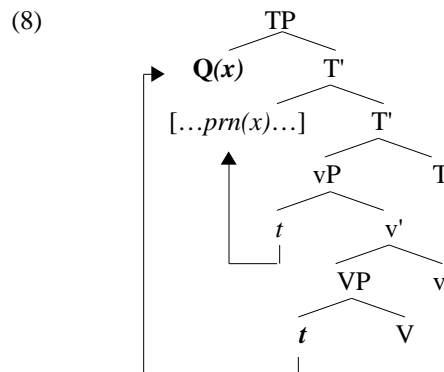
A similar derivation is given in (9). I assume that the indirect object is generated in a higher VP-shell than the direct object, in the specifier of a light applicative verb (Marantz 1993). When the direct object scrambles over it, it moves to a second specifier of APPLP.

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[1] Miyagawa (1999) provides evidence that the subject remains *v*P-internal when the object scrambles over it. I leave this issue aside here. Miyagawa also proposes to reduce A-scrambling to EPP-driven movement, clearly a desirable goal.

(9)

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                              vP
                           ╱    ╲
                       APPLP      v
                      ╱    ╲
          ▶    Q(x)        APPL'
                          ╱    ╲
              [...prn(x)...]    APPL'
                               ╱    ╲
                             VP      APPL
                            ╱  ╲
                           t    V
```

Some of the evidence for A-scrambling in Japanese comes from the binding of reciprocals, as shown in (10) (from Saito 1992).[2] In its *v*P-internal position, the object cannot bind a reciprocal embedded in the subject (10a). However if it scrambles to a position above the subject, it can bind the reciprocal (10b). These facts parallel the quantifier-pronoun binding facts from Korean in (6).

(10) a.*[*Otagai-no* sensei]-ga [**karera-o**   hihansita].
        eo-GEN teacher-NOM   they-ACC   criticized
        '*Each other$_i$'s* teachers criticized ***them$_i$*.'

  b. **Karera-o** [*otagai-no* sensei-ga] [*t* hihansita].

Such new reciprocal binding possibilities arise only with clause-internal scrambling. (11a) shows a pronoun in an embedded clause. Scrambling the pronoun out of the embedded clause is generally possible, but does not allow it to bind a reciprocal in the higher clause (11b).

(11) a.*[*Otagai-no* sensei]-ga | Hanako-ga **karera-o** hihansita-to | itta.
        eo-GEN teacher-NOM   H.-NOM   they-ACC criticized that said
        '*Each other$_i$'s* teachers said that Hanako criticized ***them$_i$*.'

  b.***Karera-o** [*otagai-no* sensei]-ga | Hanako-ga *t* hihansita-to | itta.

The contrast between (10b) and (11b) can be captured under the view that only clause-internal scrambling can be A-movement, while long-distance scrambling is A-bar movement (Mahajan 1990). Under this view, it appears that idiom chunks can undergo A-scrambling but not A-bar scrambling. The examples in (12) involve an idiom composed of the verb and direct object (Miyagawa 1997). On the idiomatic reading, the direct object can scramble clause-internally to a position above the subject (12a). However, it cannot scramble out of an embedded clause except on a literal reading (12b).

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[2] Saito notes that these examples are more acceptable when embedded within a noun phrase headed by *koto* 'the fact that'.

(12) a. **Te-o**   John-ga [hoteru-gyoo-ni [*t* nobasita]].
      hand-ACC J.-NOM hotel-biz-DAT   extended
      'John became involved in the hotel business.'
      (*lit.* 'John extended his hand to the hotel business.')

   b.***Te-o**   Mary-ga John-ga | [hoteru-gyoo-ni [*t* nobasita]] to | hookokusita.
      hand-ACC M.-NOM J.-NOM   hotel-biz-DAT   extended that reported
      'Mary reported that John became involved in the hotel business.'

These two properties, binding and idiomatic interpretations, can be used to identify A-scrambling. Word order alone is not sufficient, since clause-internal scrambling in Japanese can be either A- or A-bar movement.

3 Ordering Restrictions Within *v*P

In general, the indirect object can either c-command or be c-commanded by the direct object within *v*P in Japanese. For example, in (13a), the indirect object c-commands and precedes the direct object. In (13b), the direct object scrambles over the indirect object, leaving behind a floated numeral classifier, which indicates the base position of the scrambled argument (examples from Koizumi 1995).

(13) a. John-ga   [Mary-ni [**piza-o**   ageta]].
      J.-NOM   M.-DAT   pizza-ACC gave
      'John gave **pizza** to Mary.'

   b. John-ga [**piza-o**   Mary-ni [*t* ni-kire ageta]].
      J.-NOM pizza-ACC M.-DAT   2-CLS gave
      'John gave two slices of **pizza** to Mary.'

As noted above, a scrambled object can bind a reciprocal or a reflexive embedded in the subject. This is shown in (14) for the reflexive anaphor *karezisin* (Yatsushiro 1997 and p.c.). The reflexive can be bound by the scrambled object in (14b), but not by the unscrambled object in (14a).

 (14) a.*[*Karezisin-no* hahaoya]-ga [**Hiroshi-o** nagutta].
      self-GEN mother-NOM   H.-ACC   hit.PST
      '*His$_i$* mother hit **Hiroshi$_i$**.'

   b. **Hiroshi-o** [*karezisin-no* hahaoya]-ga [*t* nagutta].

The same contrast arises when the direct object scrambles over the indirect object, as shown in (15). We can conclude that the direct object occupies an A-position above the indirect object in (15b).

(15) a.*Kazuko-ga[[*karezisin-no* hahaoya-ni][**Osamu-o** miseta]].
      K.-NOM   self-GEN mother-DAT   O.-ACC   showed
      'Kazuko showed *his$_i$* mother **Osamu$_i$**.'

   b. Kazuko-ga [**Osamu-o** [*karezisin-no* hahaoya-ni] [*t* miseta]].

When the direct object can move to a position above the indirect object within *v*P, it is local for attraction to an A-position above the subject. When it cannot, it also cannot undergo (nonlocal) scrambling past the indirect object to an A-position above the subject.

3.1 IO-DO idioms

Some idioms include a ditransitive verb and both of its objects. An idiom of this kind is shown in (16) (Richards 1997). For this idiom, the indirect object can c-command and precede the direct object, as in (16a), but not vice versa (16b).

(16) a. Taroo-ga hi-ni   [**abura-o** sosoida].
         T.-NOM   fire-DAT oil-ACC   poured
         'Taroo made things worse.'

      b.*Taroo-ga **abura-o** hi-ni [(*t*) sosoida].

3.2 IO with Floated Numeral Classifier

An ordering restriction also arises when the indirect object is associated with a floating numeral classifer (Miyagawa 1997). For speakers who allow a floated numeral classifier with a dative NP, the order in (17a) is fine, where the indirect object c-commands and precedes the direct object. The reverse order, shown in (17b), is ill-formed.[3]

(17) a. Mary-ga [*tomodati-ni futa-ri* [**CD-o**   okutta]].
         M.-NOM   friend-DAT 2-CLS   CD- ACC sent
         'Mary sent two friends a CD.'

      b.*Mary-ga **CD-o** [*tomodati-ni futa-ri* [*t* okutta]].

There is some evidence that the restriction in (17b) has to do with the type of Case on the dative argument. Japanese has both structural and inherent dative Case. An NP with structural dative Case in an active can move to the subject position in a passive, where it bears nominative morphological case; an NP with inherent dative Case is always dative and cannot move to the subject position of a passive (Koizumi 1995). Koizumi also points out that NPs with structural, but not inherent, dative Case can be associated with a floated numeral classifier. It may be that (17b) is ill-formed because the scrambled direct object blocks the indirect object from checking structural Case on a higher head (e.g., *v*). A similar proposal could be made regarding object shift to spec-*v*P in a transitive clause. Jonas (1997) argues that object shift is prevented in some languages because the shifted object blocks T from checking the Case of the logical subject (18).[4]

[3] Miyagawa notes that (17b) is acceptable if *CD-o* is focused and followed by a pause.

[4] In languages where object shift does occur, such as Icelandic, T is "strong" enough to bypass the object and check the features of the logical subject. Strong T also attracts the finite verb.

(18)   *[$_{TP}$ There didn't [$_{vP}$ **the books** a single student read [$_{Vp}$ t_V *t*]]].

As regards (17), I leave this proposal as a speculation.

3.3 Lethal Ambiguity

A third restriction on the scrambled DO-IO order concerns the available binding possibilities. A scrambled direct object can bind a reflexive anaphor embedded in the indirect object (19a), but cannot bind a reflexive indirect object itself (19b) (Yatsushiro 1997 and p.c.).

(19) a. Kazuko-ga **Osamu-o** [*karezisin-no* hahaoya]-ni [*t* miseta].
          K.-NOM   O.-ACC   himself-GEN mother-DAT   showed
          'Kazuko showed **Osamu**$_i$ to *his*$_i$ mother.'

      b.*Kazuko-ga **Osamu-o** *karezisin-ni* [*t* miseta].
          K.-NOM   O.-ACC   himself-DAT   showed
          'Kazuko showed **Osamu**$_i$ to *himself*$_i$.'

   The ill-formedness of (19b) falls under Lethal Ambiguity, a general restriction on A-movement (McGinnis 1998; see also Rizzi 1986, Snyder 1992). Lethal Ambiguity states that an anaphoric dependency cannot be established between two specifiers of the same head.[5] A partial derivation for the ill-formed structure is given in (20).

(20)
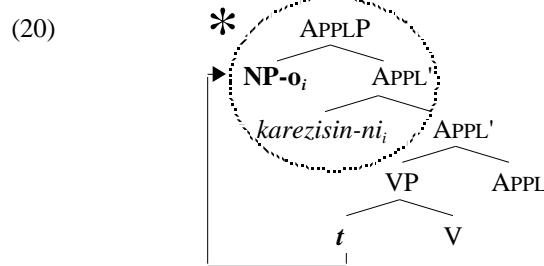
   Lethal Ambiguity can also arise when the object scrambles over the subject, as shown in (21). The effects of this restriction can be seen in a range of languages; an example from Georgian is given in (22) (Harris 1981 and L. Nash, p.c.). These examples are in the aorist, which has ergative case-marking. A nominative object can scramble over a dative indirect object and bind a possessive reflexive (22a), but not the indirect object itself (22b). (22b) is acceptable only if the subject (*nino*) binds the anaphor.

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[5] The term is intended to suggest that a semantic ambiguity (undecidability) arises between the two specifiers, making the derivation uninterpretable. Alexiadou & Anagnostopoulou (1997) propose that a lethal ambiguity can also arise between two potential feature-attractors.

(21) a. **Hiroshi-o** [*karezisin-no* hahaoya]-ga [*t* nagutta].
      H.-ACC   self-GEN mother-NOM   hit.PST
      '*His$_i$* mother hit **Hiroshi$_i$**.'

    b.***Hiroshi-o** *karezisin-ga* [*t* nagutta].
      H.-ACC   self-NOM   hit.PST
      '*Himself$_i$* hit **Hiroshi$_i$**.'

(22) a. Nino-m [**bavšv-i**   [*tav-is* deda-s]   [*t* a-nax-a]].
      N.-ERG   child-NOM self's mother-DAT   R-show-AOR
      'Nino showed the **child$_i$** to *its$_i$* mother.'

    b.*Nino-m [**gela**   *tavis tav-s*   [*t* a-nax-a]]   sarKeš-i.
      N.-ERG G.NOM self's self-DAT   R-show-AOR mirror.in
      'Nino showed **Gela$_i$** to *himself$_i$* in the mirror.'

4 A-Scrambling is Local

As the previous section shows, there are certain environments where the DO-IO order is not possible. These restrictions have implications for A-scrambling to a position above the subject. When the direct object cannot scramble to a *v*P-internal position above the indirect object, it also cannot scramble past it to spec-TP. Such movement is blocked not because the direct object is somehow frozen in place, but because of locality: if the indirect object scrambles to a position above the subject, then the direct object can scramble as well.

4.1 A-Scrambling and idioms

We can begin by considering well-formed cases of A-scrambling in a Japanese double-object construction. (23a) shows the familiar double-object idiom. In (23b) the higher object scrambles alone to a position above the subject. In (23c) the lower object also scrambles above the subject, tucking in under the first scrambled object (Richards 1997).

(23) a. Taroo-ga [**hi-ni**   [*abura-o* sosoida]].
      T.-NOM   fire-DAT oil-ACC   poured
      'Taroo made things worse.'

    b. **Hi-ni**   Taroo-ga [*t* [*abura-o* sosoida]].

   c. **Hi-ni**   *abura-o* Taroo-ga [*t* [*t* sosoida]].

Richards argues that the second scrambled element tucks in under the first because of Featural Cyclicity—a principle ensuring that an attracted phrasal category is merged as close as possible to the attracting head. Featural Cyclicity can be defined as in (24).

(24) *Featural Cyclicity*[6]
    For a given type of feature F_t, each element checking F_t on a
    head H moves to a successively lower specifier of H.

Richards gives evidence for Featural Cyclicity from a wide range of move-
ment types, including *wh*-movement, as shown in the Bulgarian multiple-
wh questions in (25) (from Rudin 1988).

(25) a. **Koj** *kogo* vižda *t* [*t*]?
       who whom sees
       'Who sees whom?'

    b.*Kogo* **koj** vižda *t* [*t*] ?

    The proposed structure for (23c) is given in (26). The subject moves to
spec-TP, checking Case and EPP, then the (higher) indirect object moves to
a second specifier of TP, then the (lower) direct object moves and tucks into
a third specifier of TP. All of these movements obey locality: the arguments
are attracted from highest to lowest.

(26)

    Nonlocal A-scrambling does not occur, as shown in (27). As noted
above, the idiomatic reading is impossible in (27a), where the direct object
has scrambled over the indirect object. This may be because on the idio-

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[6] This definition differs slightly from that of Richards (1997) in that it is relativized to the type
of feature involved. Thus, in (26), the third specifier tucks in under the second (since both
check Scr), but the second and third do not tuck in under the first (since it checks EPP/Case).

matic reading, the indirect object has structural Case; as noted above, a direct object apparently cannot scramble over an indirect object with structural dative Case in Japanese. (27b) shows that the direct object cannot skip over the indirect object to an A-position above the subject—this movement would violate locality. (27b) is not improved by subsequently scrambling the indirect object, so that it tucks in under the direct object, as in (27c). (28) gives the ill-formed derivation for (27b). Note that the direct object is not simply frozen in place, since it can scramble above the subject after the indirect object has done so, as shown in (26).

(27) a.*Taroo-ga [**abura-o** [*hi-ni* [*t* sosoida]].

      T.-NOM oil-ACC fire-DAT poured
      'Taroo made things worse.'

  b.***Abura-o** Taroo-ga [*hi-ni* [*t* sosoida]].

  c.***Abura-o** *hi-ni* Taroo-ga [*t* [*t* sosoida]].

(28)
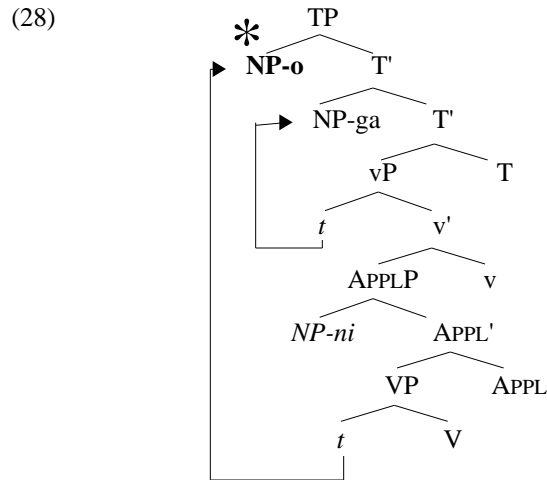
    The above discussion concerns a double-object construction in which the idiom includes the verb and both objects. This case can be contrasted with an idiom that includes only the verb and the direct object. Here the direct object can A-scramble to a position above the indirect object within *v*P (29a), perhaps because the (non-idiomatic) indirect object can have inherent Case. Having scrambled once, the direct object can then scramble again, locally, to an A-position above the subject (29b).

(29) a. John-ga [**te-o**   *hoteru-gyoo-ni* [*t* nobasita]].

   J.-NOM hand-ACC hotel-biz-DAT   extended
   'John became involved in the hotel business.'

   b. **Te-o** John-ga [*t hoteru-gyoo-ni* [*t* nobasita]].

The derivation of (29b) is given in (30). The direct object leapfrogs over the indirect object via an intermediate position in a specifier of the applicative verb. In this configuration, the two arguments are equally local to a higher attracting head, so the direct object can move again to spec-TP without the indirect object moving there first. This derivation contrasts with the ill-formed derivation in (28).

(30)
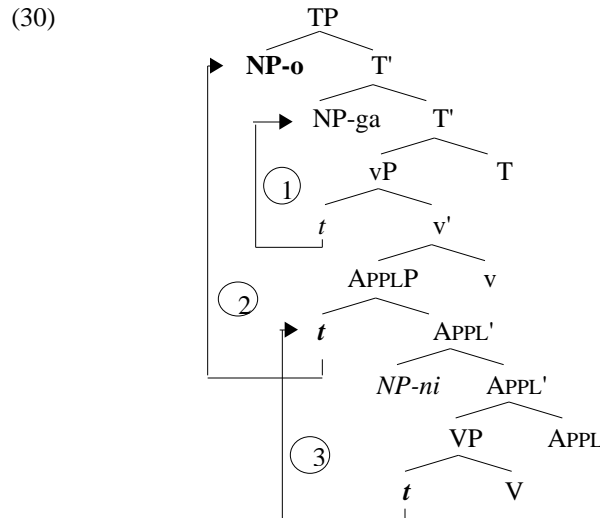
4.2 A-Scrambling and Binding

Recall that the possibility of idiomatic interpretations is one way to identify A-scrambling, and the creation of new binding relations is another. As shown above, evidence from idioms suggests that A-scrambling respects locality: the (lower) direct object in a double object construction cannot scramble past the indirect object without first scrambling into spec-APPLP. Binding evidence also supports this view.

   We noted above that when the indirect object in Japanese has a floated numeral classifier, the direct object cannot A-scramble over it *v*P-internally (31a). The direct object also cannot skip over this indirect object to an A-position above the subject, to bind a reciprocal or reflexive embedded in the subject (31b) (T. Aikawa, p.c.).

(31) a.*Taroo-ga [**gakusei-o** [*otagai-no* sensei-ni <u>futari</u>][*t* syookaisita]].
　　　 T.-NOM　 student-ACC eo-GEN teacher-DAT two　　 introduced
　　　 'Taro introduced **the students**$_i$ to <u>two of</u> *each other's$_i$* teachers.'

　 b.***Gakusei-o**　　 [*otagai-no* adobaizaa-ga]　 [sensei-ni <u>futari</u>　[*t* syookaisita]].
　　　 student-ACC　eo-GEN advisor-NOM　　　 teacher-DAT twointroduced
　　　 '*Each other's$_i$* advisors introduced **the students**$_i$ to <u>two</u> teachers.'

　　 However, if the floated classifier is absent, the direct object can A-scramble over the indirect object (32a), and scramble again to an A-position above the subject (32b). Here the scrambled object *can* bind a reciprocal embedded in the subject.[7]

(32) a. Taroo-ga [**gakusei-o**　 [*otagai-no* sensei-ni][*t* syookaisita]].
　　　 T.-NOM　 student-ACC　eo-GEN teacher-DAT　　 introduced
　　　 'Taro introduced **the students**$_i$ to *each other's$_i$* teachers.

　 b. **Gakusei-o**　[*otagai-no* adobaizaa-ga] [*t* sensei-ni　[*t* syookaisita]].
　　 student-ACC eo-GEN advisor-NOM　　　　 teacher-DAT introduced
　　 '*Each other's$_i$* advisors introduced **the students**$_i$ to the teacher.'

4.3 A-scrambling and Lethal Ambiguity

Further evidence for locality in A-scrambling comes from Lethal Ambiguity, the restriction that prevents an anaphoric dependency from obtaining between specifiers of the same head.[8] We saw evidence from Japanese that the direct object cannot scramble over the indirect object and bind it (33a). It also cannot skip over the indirect object and bind it, as shown in (33b). If the nonlocal movement in (33b) were possible, the two arguments would never occupy specifiers of the same head, so binding would be acceptable.[9] The subject *Kazuko* also cannot be construed as binding the anaphor, since the two do not agree in gender.

 (33) a.*Kazuko-ga(kagami-o tukatte) [**Osamu-o**　*karezisin-ni* [*t* miseta]].
　　　 K.-NOM　 mirror-ACC using　O.-ACC　　 self-DAT　　　 showed
　　　 'Kazuko showed **Osamu**$_i$ to *himself$_i$* (using a mirror).'

　 b.***Osamu-o** Kazuko-ga (kagami-o tukatte) [*karezisin-ni* [*t* miseta]].

　　 One ill-formed derivation of the string in (33b) is shown in the non-local derivation (28). The Scrambling feature of T passes over the indirect

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[7] For some reason, a direct object cannot leave behind a floating classifier when it A-scrambles over the subject. I know of no explanation for this observation. However, according to my consultants, the direct object *can* leave behind a floating classifier when it A-scrambles only over the indirect object. Thus it is questionable to conclude from the former observation that A-scrambling does not involve movement (cf. Bošković & Takahashi 1998).

[8] Parallel examples can be seen in Georgian (McGinnis 1998).

[9] Compare *Mary seems to herself [t to be a potential candidate],* where *herself* is embedded in a PP, so *Mary* and *herself* do not occupy specifiers of the same head (McGinnis 1998).

object to attract the direct object to spec-TP. This move violates the locality condition built into Attract. The (A-)Scrambling feature attracts NP, and the closest NP is the indirect object. Thus the derivation is ungrammatical.

A direct object can scramble over the indirect object and bind an anaphor embedded within it (34a), and then scramble again locally to the subject position (34b). However, the string in (33b) is also impossible under a derivation with successive-cyclic movement of the direct object through a specifier of APPLP (35). This derivation obeys locality—it is identical to the well-formed derivation in (30)—but it violates Lethal Ambiguity. The two objects occupy specifiers of the same head (APPL) at one stage in the derivation, so no anaphoric dependency can obtain between them.

(34) a. Kazuko-ga[**Osamu-o** [*karezisin-no* hahaoya-ni][*t* miseta]].
    K.-NOM O.-ACC   self-GEN mother-DAT   showed
    'Kazuko showed **Osamu**$_i$ to *his*$_i$ mother.'

  b. **Osamu-o** Kazuko-ga [*t* [*karezisin-no* hahaoya-ni] [*t* miseta]].

(35)   ***Osamu-o** Kazuko-ga (kagami-o tukatte) [*t karezisin-ni* [*t* miseta]].
    O.-ACC K.-NOM   mirror-ACC using self-DAT   showed
    'Kazuko showed **Osamu**$_i$ to *himself*$_i$ (using a mirror).'

The same restrictions—locality and Lethal Ambiguity—can be seen in movement to the subject position. In Albanian, for example, the direct object of a double-object construction raises to the subject position of a passive (36a) (Massey 1992). To respect locality, the direct object must move through an intermediate position in spec-APPLP, where the two objects occupy specifiers of the same head. As a result, no anaphoric dependency can obtain between them (36b). To avoid Lethal Ambiguity, the direct object would have to skip over the indirect object, violating locality; this derivation is also impossible.

(36) a. **Secili djalë**   iu tregua   [*t* babës *të tij*   [*t*]].
    each boy.NOM CL show.NACT father his.DAT
    '**Each boy(x)** was shown to *his(x)* father.'

  b.***Drita**   iu tregua   [*(t) vetes* [*t*]] prej artistit.
    Drita.NOM CL show.NACT   self.DAT   by the.artist
    '**Drita**$_i$ was shown to *herself*$_i$ by the artist.'

In sum, a higher NP can block a lower one from A-scrambling, just as with movement to subject. If the direct object can first A-move to an intermediate position where the two objects are equidistant, it can A-move again to a still higher position. If the intermediate step is unavailable, the direct object is blocked from A-scrambling unless the indirect object scrambles first. These observations indicate that A-scrambling respects locality.

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