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A Feature Decomposition Approach to (Anti-)Reconstruction

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1.   Introduction[1]

Chomsky (1977: 83-84) proposes that some sort of reconstruction rule would be necessary to derive the proper LF representation of a sentence that contains a complex *wh*-phrase. For instance, the syntactic trace t in (1a) does not correctly correspond to the semantic variable x in [x's book] in (1b), and thus the LF reconstruction which maps (1a) to (1b) is necessary to give the appropriate input to the semantic interpretation.

(1)   a.   whose book did Mary read t

      b.   for which x, x a person, Mary read [x's book]   (LF of (1a))

Since then, reconstruction has been a locus of extensive discussion in the literature. Specifically, when the moved phrase contains some referring expression which interacts with some other elements in the sentence, the issue of reconstruction (or anti-reconstruction) effects becomes more complex and interesting (Freidin 1986, Lebeaux 1988/2000, Chomsky 1992, Saito 1989, etc.). The goals of this paper are to introduce an apparent interpretive paradox in Japanese scrambling that seemingly shows both

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reconstruction and anti-reconstruction effects at the same time, to explore the possibility of a feature decomposition approach, and to discuss theoretical implications of the proposal.

2.   An Interpretive Paradox

2.1   *Interpreted at the original site*

Let us first review the case in which reconstruction is necessary. Japanese *wh*-phrases must appear with the Q-marker *ka* (or *no*) as shown in (2).

(2)   a.   *John-ga **dare-ni**   sore-o   osie masita

John-NOM **who-to** that-ACC told

'lit. John told who that'

b.   [[John-ga **dare-ni**   sore-o   osie masita] **ka**]

John-NOM **who-to**   that-ACC told   **Q**

'Who did John tell that?'

c.   [**dare-ni**$_2$ [John-ga t_2 sore-o   osie masita] **ka**]

There is no Q-marker *ka* in (2a) and thus the *wh*-phrase *dare-ni* 'to whom' is not properly licensed and the sentence is ungrammatical. On the other hand, there is a Q-marker *ka* that licenses the *wh*-phrase in (2b) and thus the sentence is grammatical. More specifically, the *wh*-phrase *dare-ni* 'to whom' moves to the Spec of the Q-marker *ka* in the LF component, giving the LF representation in (2c). Further, the *wh*-phrase must be in the domain of the Q-marker as shown in (3).

(3)   *John-ga **dare-ni** [[Mary-ga kuru] **ka**] osieta] koto

John-NOM **who-to** Mary-NOM come **Q**   told   fact

(see K.I. Harada 1972, Saito 1989)

If *dare-ni* 'to whom' in (3) moves in LF to the Spec of *ka* as in (4), the trace of *dare-ni* violates the Proper Binding Condition (PBC) (Fiengo 1977, May 1977).[2]

(4)   John-ga t_2 **[dare-ni$_2$** [Mary-ga kuru] **ka]** osieta] koto

       John-NOM   **who-to**   Mary-NOM come **Q**   told   fact

Based on these observations, Saito (1989) concludes that PBC applies at LF (as well as at S-structure). Given this, let us look at (5).

(5)   a.   [Mary-ga **[[minna-ga [[John-ga dono hon-o** toshokan-kara

               Mary-NOM all-NOM John-NOM **which book-ACC** library-from

               karidasita] to] omotteiru] **ka]** siritagatte iru] koto

               checked-out COMP   think **Q**   want-to-know   fact

               'the fact that Mary wants to know Q everyone thinks that

               John checked out which book from the library'

       b.   ?? [[[John-ga **dono hon-o** toshokan-kara karidasita] to]$_1$

               [Mary-ga   **[[minna-ga t_1** omotteiru] **ka]** siritagatte iru]] koto

                                                            (Saito 1989:192)

(5b) is derived by scrambling the embedded clause *[[John-ga **dono hon-o** toshokan-kara karidasita] to]* 'that John checked out which book from the library' to the sentence initial position. (5b) is marginal but is far better than (3). This indicates that *dono hon* 'which book' in the scrambled clause in (5b) is somehow licensed by the embedded Q-marker *ka*. For instance, unlike (4), (5b) is not a PBC violation and thus (6) is not an appropriate LF representation of (5b).

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[2] Trace must be bound.   (Cf. Fiengo 1977: 45)

(6)   [s [s' ... t_j ...]$_i$ [s ... [s' [s ... t_i ...] wh$_j$] ...]]

Rather, in the legitimate LF representation of (5b), Saito argues, the entire scrambled phrase moves back to the original position so that the *wh*-phrase is correctly licensed and there is no PBC violation. Based on these, Saito (1989) concludes that scrambling can be freely undone in LF. In other words, the scrambled phrase can be interpreted at the original site.

2.2   Interpreted at the scrambled site

Next, let us look at the case of anti-reconstruction in Japanese scrambling. Saito (1985:161) argues that the scrambled phrase can be interpreted at the scrambled site as well. Let us consider the following contrast in (7).

(7)   a.   * <u>Kare</u>$_1$-ga [dareka-ga [Mary-ga   <u>John</u>$_1$-ni okutta tegemi]-o

              <u>he</u>-NOM someone-NOM Mary-NOM <u>John</u>-to   sent   letter -ACC

              nusumiyomisita to] omotte iru (koto)

              took-a-peek-at that thinking   (fact)

       b.   [Mary-ga <u>John</u>$_1$-ni okutta tegami]$_2$-o <u>kare</u>$_1$-ga [dareka-ga t_2

              Mary-NOM <u>John</u>-to   sent letter–ACC   <u>he</u>-NOM someone-NOM

              nusumiyomishita to] omotte iru (koto)   (Saito 1985:161)

              took-a-peek-at   that thinking   (fact)

In (7a), *kare*$_1$ 'he' c-commands *John*$_1$; it is a typical Binding Condition C (BC(C)) violation (Chomsky 1981). However, when the complex object NP is scrambled to the sentence initial position as in (7b), the sentence improves substantially. The clear contrast between (7a) and (7b) indicates that there is no BC(C) violation in (7b). Therefore, as far as we take the

LF representational approach, the conclusion is that scrambled phrase can be interpreted at the scrambled site.

In a nutshell, in terms of *wh*-phrase licensing by the Q-marker, we conclude that scrambled phrase can be interpreted at the original site, while in terms of the bleeding of BC(C), we conclude that scrambled phrase can be interpreted at the scrambled site. Now let us consider if we can construct an example in which the scrambled phrase contains both conditions (i.e., *wh*-phrase licensing and bleeding of BC(C)) and what will happen to such an example.

2.3   A Paradox

The sentence (8) is good in the relevant interpretation in which the *wh*-phrase *doko-ni* 'where' stays within the domain of the Q-marker *ka* and also there is no BC(C) violation. (9) is ungrammatical because of a BC(C) violation. *Kare$_1$* c-commands *John$_1$*.

(8)   John$_1$-wa Mary-ga [[doko-ni notta] kare$_1$-no ronbun]-o hihansita ka
      John-TOP Mary-NOM where-in appear his-GEN paper-ACC criticized Q
      siritagatte iru
      want-to-know
      'John$_1$ wants to know Q Mary criticized his$_1$ paper that appeared where'

(9)   * Kare$_1$-wa Mary-ga [[doko-ni notta] John$_1$-no ronbun]-o hihansita ka
      He-TOP Mary-NOM where-at appear John-GEN paper-ACC criticized Q
      siritagatte iru
      want-to-know

'He₁ wants to know Q Mary criticized John's₁ paper that appeared where'

Now, let us consider (10) in which the complex object *[[doko-ni notta] John₁-no ronbun]-o* 'John's paper that appeared where' in (9) is scrambled to the sentence initial position.

(10)??[[doko-ni notta] John₁-no ronbun]₂-o kare₁-wa Mary-ga *t₂* hihansita

He-ᴛᴏᴘ Mary-ɴᴏᴍ where-at appear John-ɢᴇɴ paper-ᴀᴄᴄ criticized

ka siritagatte iru

Q   want-to-know

(10) is marginal on a par with (5b), and far better than (3). This means that the *wh*-phrase *dono-ni* 'where-in' is properly licensed by the embedded Q-marker *ka*. At the same time, (10) is far better than (9) as well, which indicates that it successfully evades a BC(C) violation. In other words, the clear contrast between (3) and (10) suggests that the scrambled phrase is interpreted at the original site, while the clear contrast between (9) and (10) suggests that the scrambled phrase is interpreted at the scrambled site. We are in a paradox.

As for the evasion of BC(C) effect, Epstein *et al* (1998), following the idea of Lebeaux (1988/2000), propose that an adjunct (e.g., a relative clause) can be inserted noncyclically. Look at (11).

(11)   [which claim [that John₁ made]] was he₁ willing to discuss *t*

Under this approach, the relative clause *[that John made]* in (11) can be inserted after *wh*-movement. Therefore, there is no point of derivation in which *he* c-commands *John* and thus the relevant coreferential reading is possible. This approach can be extended to Japanese examples like (7)

above. *[Mary-ga John-ni okutta]* '(that) Mary sent to John' in (7) is the relative clause modifying the head noun *tegami* 'letter'. Therefore, the relative clause can be inserted after *tegami* is scrambled to the sentence initial position, and thus there is no point of derivation in which *kare* 'he' c-commands *John*. The evasion of BC(C) is successfully accounted for.

However, this type of late insertion approach does not help for (10) because the relevant R-expression *John* is not (part of) an adjunct, but rather it is part of an argument. We need some alternative to resolve the apparent paradox observed in (10).[3]

3.   Feature Decomposition Approach

In this section, I will propose that the feature decomposition approach can give a possible solution to the paradox we have observed above.

First of all, it has been generally accepted in the generative literature that a lexical item is a set of features (Chomsky 1965, 1995) such as {Phonological features (P-features), Semantic features (S-features), Formal (syntactic) features (F-features)}. Further, there is an idea that these features of a lexical item (or a larger syntactic object) can be 'decomposed' during derivation. For instance, SPELL-OUT (Chomsky 1995) is an operation that separates phonology-related features from others. An even more radical example is the copy and deletion conception

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[3] Another logical possibility is that *wh*-phrases can be licensed by the Q-marker *derivationally*. In other words, *doko-ni* 'where' in (10) is licensed at the original position before scrambling. I will not pursue this possibility but simply point out that there are independent arguments that structural relation between the Q-marker *ka* and *wh*-phrases must be represented at the LF interface. See Takahashi (1993), and Tanaka (1999).

of syntactic movement. In this conception, for example, some part (*who-*) of a lexical item (*whose*) and the rest (*-se*) of the same lexical item can be "scattered" in the structure as in (12c) which corresponds to the LF representation (12d).[4]

(12)   a.   (I wonder) John likes whose books.

       b.   (I wonder) [whose books] John likes [whose books]

       c.   (I wonder) [who~~se books~~] John likes [~~who~~se books]

       d.   (I wonder) for which x, x a person, John likes [x's books]

Under this conception, a natural question to ask is exactly what feature of the bindee [names/R-expressions] is responsible for the BC(C) effect? Let us look at (13). Both *he* and *John* induce agreement in the same way. Therefore, it is natural to conclude that they share the identical set ϕ-features: {3^{rd} person, singular, masculine}.

(13)   a.   He likes music.

       b.   John likes music.

Further, category feature D ("referential feature" in Yatsushiro 1996) is also shared by R-expressions and pronouns (and probably by all nominals). Given this, it is natural to assume that an R-expression and the corresponding pronoun share the identical set of features and the R-expression has something extra. Let us call this extra feature "R-features," following Burzio (1991).[5]

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[4] See also Saito (2003) who entertains the idea that more abstract features (like D-features and A-features) of a lexical item can be separated from each other.
[5] I assume here that phonological features are irrelevant for the binding theoretic purposes. This is, however, not an innocent assumption. See Freidin and Vergnaud (2001) for an argument that BC(C) is a PF phenomenon.

(14) a.   a pronoun: {ϕ-features, D}

    b.   a Name/R-expression: {ϕ-features, D, "R-feature"}

Given this feature specification, we see that a set of features for an R-expression is a superset of a set of features for the corresponding pronoun. Since pronouns are irrelevant to the BC(C) effect, it is reasonable to assume that the relevant features of the bindee for BC(C) are R-features. Let us here state BC(C) as follows, for the purpose of discussion of Binding Theory in terms of features specification:

(15)   Condition C: *an item that contains R-features is bound.

Bearing this in mind, let us consider our paradoxical example (10-9), repeated here as (16) and (17).

(16) * Kare$_1$-wa Mary-ga [[doko-ni notta] John$_1$-no ronbun]-o hihansita ka

     He-TOP Mary-NOM where-at appear John-GEN paper-ACC criticized Q

     siritagatte iru

     want-to-know

     'He$_1$ wants to know Q Mary criticized John's$_1$ paper that appeared where'

(17)??[[doko-ni notta] John$_1$-no ronbun]$_2$-o kare$_1$-wa Mary-ga t_2 hihansita

     He-TOP Mary-NOM where-at appear John-GEN paper-ACC criticized

     ka siritagatte iru

     Q   want-to-know

The problem in (17) is that the scrambled phrase must be interpreted at the original site (for *wh*-licensing) and at the scrambled site (for the evasion of BC(C)) at the same time. Now, let us examine the derivation from (16) to (17) in terms of movement as a copy and deletion operation. (18)

represents the relevant features of (16) before scrambling applies. In (18), Q stands for the quantificational feature of the *wh*-word *where* (Saito 2003), and P stands for phonological features (P-features).[6] I put aside φ-features which are not relevant to the present discussion.

(18) he … [[… [where …] John's …] …Q] …

{P, Q}   {P, D, R}

When scrambling applies, we first get the full copies of the items at both original site and scrambled site as in (19).

(19) **[… [where …] John's …]** he … [[… [where …] John's …] …Q] …

{P, Q}   {P, D, R}   {P, Q}   {P, D, R}

Then, the complementary deletion applies, but the question is which features remain at which position. The P-features must remain at the scrambled site, which is the defining property of overt movements.

(20) **[… [where …] John's …]** he … [[… [where …] John's …] …Q] …

{P, Q}   {P, D, R}   {P̶, Q}   {P̶, D, R}

Next, the Q-feature of 'where' must be licensed in the domain of the Q-marker, and thus it stays in the original site as in (21).

(21) **[… [where …] John's …]** he … [[… [where …] John's …] …Q] …

{P, Q̶}   {P, D, R}   {P̶, Q}   {P̶, D, R}

As for the D-feature, Saito (2003) argues that it has something to do with selection, and thus it is natural to assume that D-features must be interpreted at the selected position. In the present case, the head of the

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[6] It is not a trivial issue whether *doko ni* 'where' has D-feature or not, but this is not crucial for the present discussion. Thus I simply do not put D-feature on 'where' in the following representations.

relative clause *ronbun* 'paper' is selected by the embedded verb *hihansita* 'criticized' and thus D-feature of *ronbun* 'paper' must stay at the original site. Further, thematic relations are usually considered to be a type selection and thus *John* in *John no ronbun* 'John's paper' can be considered to be selected by the head *ronbun* 'paper'; hence, the D-feature of *John* must stay with *ronbun* and consequently in the original position.

Now, what can we say about the R-feature of *John*? It is natural to assume that R-features have nothing to do with selection in any obvious sense. For instance, there is no lexical item, to my knowledge, whose thematic selection property can be satisfied only with a name/R-expression but not with a pronoun. If this is the case, it is natural to assume that R-feature of *John* does not have to stay at the original site. Rather, it can stay at the scrambled site. The relevant representation is (22).

(22)   **[... [where ...] John's ...]** he ... [[... [where ...] John's ...] ...Q] ...

      {P, ~~Q~~}   **{P, ~~D~~, R}**   {~~P~~, Q}   {~~P~~, D, ~~R~~}

Notice now that although the downstairs *John* is bound by the subject 'he' in (22), it does not contain R-feature. Therefore, there is no BC(C) violation in this LF representation, according to the revised feature based definition of BC(C) in (15). Put it differently, the relevant R-feature of *John* can "strand" at the scrambled site and this is why there is no BC(C) effect in (17). The paradox has been resolved. In the following section, I will give some independent arguments for the separation of R-features from the D-feature in a lexical item.

4.   **"Vehicle Change" Effect and Feature Decomposition**

In their study of reconstruction of the VP-ellipsis, Fiengo and May (1995) observed the following interesting interpretive problem. In (23), *John* and *he* can be coreferential.

(23)   Mary will [$_{VP1}$ love John$_2$], and he$_2$ thinks that Sally will [$_{VP2}$ e], too. (ok; *John = he*)

Note here that the reconstruction of VP$_2$ cannot be identical to its antecedent VP$_1$, because such a reconstruction would result in a BC(C) violation as shown in (24). *He*$_2$ c-commands *John*$_2$ in VP$_2$.

(24)   Mary will [$_{VP1}$ love John$_2$], and he$_2$ thinks that Sally will [$_{VP2}$ love John$_2$]

To solve this problem, Fiengo and May (1994:221) propose a mechanism called *Vehicle Change* as in (25).

(25)   Under LF reconstruction, names can be changed into their *pronominal correlate*.

Given this mechanism, the LF representation of (23) after reconstruction is (26), in which the name *John* in the antecedent VP$_1$ has changed into its pronominal correlate *him* in VP$_2$, and thus there is no BC(C) violation, a desired result.

(26)   Mary will [$_{VP1}$ love John$_2$], and he$_2$ thinks that Sally will [$_{VP2}$ love **him**$_2$]
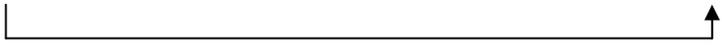
Further, names cannot be changed into its corresponding anaphor because (27a) is ungrammatical. This fact can be accounted for by Fiengo and May's mechanism. After LF reconstruction, the LF representation of (27a) is (27b) in which *him*$_2$ is c-commanded by *he*$_2$, and thus violates BC(B).

(27)   a.   * Mary will [$_{VP1}$ love John$_2$], and he$_2$ will [$_{VP2}$ e], too.

b. Mary will [$_{VP1}$ love John$_2$], and he$_2$ will [$_{VP2}$ love ***him***$_2$], too.

Now, there are two serious questions to ask. Why can names change into the pronominal correlates, and why can names not change into the anaphor (or something other than pronominal correlates) under LF reconstruction? Fiengo and May propose a complicated index mechanism to answer these two questions, but it is admittedly stipulative.

Oku (1998, 2001) proposes a more principled account of this type of vehicle change effect, which gives a natural answer to the first question: why names *can* change into its corresponding pronouns:

(28)   Subset Copy Principle[7]

    Under LF reconstruction, a subset of the antecedent features can be copied to construct the feature of elliptic site.

Recall here that we have assumed, following Burzio (1991), that feature sets of an R-expression and pronouns as in (14), repeated here as (29).

(29)   a.   a pronoun: {ϕ-features, D}

    b.   a Name/R-expression: {ϕ-features, D, "R-feature"}

In the present example, when *John* in VP$_1$ is copied to construct VP$_2$, ϕ-features and D feature are copied but not necessarily R-feature. We can have the following LF representation in (30).

(30)   ... [$_{VP1}$ love <u>John$_2$</u>], and <u>he$_2$</u> thinks that Sally will [$_{VP2}$ love <u>John$_2$</u>],

    {ϕ,D,R}   {ϕ,D}

    └─────────────── LF Copy ───────────────┘

The second copy of *John* in VP$_2$ does not have its R-feature in (30), and

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[7] See Oku (1998, 2001) for other evidence that this subset copy mechanism is empirically motivated.

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thus it successfully evades from a BC(C) violation. To the extent that the Subset Copy Principle and the Burzio-type feature composition analysis are valid, we can get a natural account for the first question of why names can be the corresponding pronouns under LF reconstruction.

As for the second question, i.e., why names cannot be something other than the corresponding pronouns (specifically, the anaphors) under LF reconstruction, Oku (1998) gives a natural account for it, too, under the Subset Copy Principle. Namely, assuming that anaphors consist of {φ-features, D feature, and A feature (i.e., anaphoric feature)}, a copy of a name cannot give an appropriate feature set of its corresponding anaphor because names do not have the relevant A feature in the first place.

There is one more natural question to be raised about the nature of the Subset Copy Principle.[8] That is, in order to rule out (27), the copy of the name *John* must be the corresponding pronoun (or the full copy), but cannot be anything "less than" that in terms of feature specification. In principle, the Subset Copy Principle allows nothing to be copied. If this is the case, there would be nothing after *love* in the second VP in (27b) and thus there would be no BC(B) violation (or BC(C) violation) and the sentence should be good, contrary to the fact. To answer this question, I argue that if nothing is copied after the verb *love*, the selectional property of the verb *love* in VP_2 cannot be satisfied. More specifically, in order to satisfy the theta-theoretic selectional property of a verb that selects a referring expression, the selected item must have, at least, D feature and

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φ-features; they must be essential features to make a lexical item a reference related expression. See Saito (2003) for a similar argument.

As far as this argument is on the right track and the Subset Copy Principle is valid, we have a natural answer to the two fundamental questions about Fiengo and May's vehicle change mechanism. Why *can* names change into the pronouns and why *can* they *not* change into anything other than the pronouns? As far as I can see, Fiengo and May do not have principled answers to these questions.

5. Consequences and Implications

5.1 Complement-Adjunct Asymmetry?

It has been extensively discussed in the literature since Freidin (1986) that there is a complement-adjunct asymmetry in the reconstruction. I have already alluded in Section 2 that such an asymmetry is not observed in Japanese scrambling. That is, both (7b) (where the name *John* is a part of the adjunct) and (10) (where the name John is a part of the complement) successfully evade BC(C). Let us here consider the classic contrast:

(31)   a.   *Which claim [that John$_1$ was asleep] was he$_1$ willing to discuss?

   b.   Which claim [that John$_1$ made] was he$_1$ willing to discuss?

(Chomsky 1992)

If the present analysis is correct, however, (31a) should be as good as (31b) because we are assuming that BC(C) is not an "everywhere" condition but a condition on LF, and that the R-feature of *John* does not have to stay in the original position and thus there should be no BC(C)

violation. Lasnik (1998) claims that this type of complement-adjunct asymmetry might be illusory and if there is any effect of this, it would be due to some pragmatic factors. He gives the following examples whose structures are identical to that in (31a) in the relevant respects (i.e., *John* is contained in the *that*-clause which is a complement) but still the sentences in (32) are virtually no worse than (31b).

(32) a. Which piece of evidence that John$_1$ was guilty did he$_1$ successfully refute?

  b. How many arguments that John$_1$'s theory was correct did he$_1$ publish?

If Lasnik's argument is correct, the present analysis has no problem about the "complement-adjunct" reconstruction of the type in (31) and (32). What is the exact "pragmatic" source of the contrast in (31), if any, is the issue for the future study (see Lasnik 1998 for discussion of some specific examples, and see also Chierchia 1995 for related discussion).

5.2 *Correspondence to Binding Condition (B)*

It is interesting to note here that the name *John* is "deeply embedded" in Lasnik's examples as well as other researches' examples who cast a doubt about Freidin/Lebeaux type complement-adjunct asymmetry.[9]

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[9] The following are some examples in which the name is a part of the embedded clause (complement or adjunct):
(i) a. [Which story that Fred$_1$ found in the newspaper] did he$_1$ enjoy best?
  b. [Which story that Fred$_1$ found a mistake in the newspaper] did he$_1$ enjoy best?   (Barss 2001:692)
  c. [Which pictures that John1 took] did he1 hang himself?
  d. [Which claim that Judge Thomas$_1$ harassed his employees] did he$_1$ resent the most?   (Chierchia 1995:167)

This fact has been noted by many linguists since 70's (e.g., Vergnaud 1974, Wasow 1979, van Riemsdijk and Williams 1981, and Saito 1985). Saito (1985: 49), for instance, states that "[w]hen a pronoun c-commands its antecedent at D-structure but this c-command relation does not obtain at S-structure due to a movement to an A'-position, the sentence is grammatical only if the antecedent is embedded *deeply enough* in the moved phrase." Saito's example is (33).

(33)   [In the box that Ben$_i$ brought from China]$_j$, he$_i$ put his cigars t_j.

In all the grammatical examples we have seen so far, the reconstructed structure is also good if we put the corresponding pronoun in place of the name. In other words, (32a) is good and thus (34) is also good, in which the moved element is in its original position and the name *John* is changed into the corresponding pronoun.

(34)   He$_1$ successfully refuted this piece of evidence that he$_1$ was guilty.

This is a natural correlation in the present feature decomposition analysis which claims, in effect, that the name in the moved phrase can be interpreted as the corresponding pronoun in the original position because of the lexical feature decomposition in the course of reconstruction process. Bearing this correlation in mind, let us look at the following contrast.

(35)   a.   He$_1$ peeked at the examinations near him$_1$.

        b.   *He$_1$ feared the examination of him$_1$.

The contrast here seems to be very sharp. The exact analysis of this contrast itself (specifically, how to define the relevant local domain for BC(B)) is a serious research question, but it is not the issue in the present

paper.[10] What is interesting is that the same contrast is obtained in the following example.[11]

(36)   a.   [Which examinations near John$_1$] did he$_1$ peek at?

       b.   ?*[Which examination of John$_1$] did he$_1$ fear?

To my knowledge, there is no previous analysis that claims that (35b) and (36b) are ungrammatical because they both violate the same principle of grammar, and that (35a) and (36a) are good because both satisfy the principle in question. (35b) is ungrammatical because the pronoun *him* violates BC(B). The present analysis claims that (36b) is ungrammatical for the same reason. That is, in the reconstructed structure, the name *John* can be interpreted as the corresponding pronoun *him* and it violates BC(B) at LF exactly in the same way as in (35b).

       Therefore, the following generalization suggests itself:

(37)   In the following structures (a) and (b), if the BC(B) is satisfied in (a), the coreferential interpretation is possible in (b), and if the BC(B) is not satisfied in (a), the coreferential interpretation is not possible in (b).

       a.   ... pronoun$_1$ ...[... pronoun$_1$ ...]...

       b.   ... [... name$_1$ ...]$_2$ ... pronoun$_1$ . ..*t*$_2$ ...

Therefore, in the present analysis, the question of when the name in a moved phrase can evade BC(C) can be reduced to the classic (not trivial) question of how to define the local domain for BC(B).

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[10] See Chomsky (1981, 1986).
[11] Slightly adapted from Lebeaux (1988/2000:104).

5.3   Two Types of Genitive Pronouns: Oku (2000)

Finally, let us discuss an implication of the present analysis. There arises a natural question regarding the proposal in the previous section, Section 5.2. That is, how can we deal with the following pair?

(38)   a.   He$_1$ put the cigars in his$_1$ box.

          b.   *In Ben's$_1$ box, he$_1$ put the cigars.

(38a) is perfect, while (38b) is ungrammatical, which provides a serious counter-example to the generalization in (37). I suggest, however, that this example is actually not a counter-example to the proposed analysis, but rather, it is supported by the proposal in Oku (2000) that English has two types of genitive pronouns. The main claim in Oku (2000) is, following the idea of Anderson (1979), that *his* in (38a) or in (39a) is an instance of local anaphor (which must be bound in the local domain), while *his* in (39b) is an instance of pronominal (which must be free in the local domain).

(39)   a.   John$_1$ likes his$_1$ bike.

          b.   John$_1$ thinks that Mary likes his$_1$ bike.

In other words, the different sets of feature happen to have the same morphophonological realization:

(40)   a.   {male, singular, D, anaphor, genitive}=> *his*

          b.   {male, singular, D, genitive} => *his*

Since these two *his* have the identical form in English, it is not easy to

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tease them apart.[12] There are, however, languages in which local anaphor genitive and pronominal genitive have different forms. For instance, in Serbo-Croatian, a genitive local anaphor is *svog* and the male singular genitive pronominal, for instance, is *njegovog*. In (41), *svog* 'self' must be bound by the local antecedent *Petar* but cannot be bound by the remote NP *Ivan*. On the other hand, in (42), *njegovog* 'his' cannot be bound by the local NP *Petar*.

(41) $Ivan_2$ misli da   ce $Petar_3$ preporuciti $svog_{*2/3}$ studenta.

Ivan thins that will Petar   recommend self's student.

'$Ivan_2$ thinks that $Petar_3$ will recommend self's$_{*2/3}$ student'

(42) $Ivan_2$ misli da   ce $Petar_3$ preporuciti $njegovog_{1/2/*3}$ studenta.

Ivan thins that will Petar   recommend his student.

'$Ivan_2$ thinks that $Petar_3$ will recommend his$_{1/2/*3}$ student'

Now, to the extent that the present feature decomposition analysis and the proposal in Oku (2000) are on the right track, (38b) is naturally accounted for. Look at the structure in (43) in which the moved phrase in (38b) is reconstructed to the original position at LF, and the R-feature of the name *John* is stranded in the moved position and thus the reconstructed phrase contains a set of feature {ϕ, D, genitive} which is identical to the set of feature for the pure pronominal *his*.

(43) * [...Ben's$_1$ ...], he$_1$ put the cigars [... Ben's ...]

{P, ~~ϕ, D~~, R }   {~~P~~, ϕ, D, ~~R~~}

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[12] See Oku (2000) for more detailed arguments, based on cross-linguistic evidence, that there are anaphor genitive pronouns and pronominal genitive pronouns in English.

Therefore, (38b) is ruled out by BC(B) in the same way as in (44b).

(44)   a.   He$_1$ put the picture of himself$_1$ in the box.

        b.   *He$_1$ put the picture of him$_1$ in the box.

6.   Summary

In this paper, I first introduced an apparent reconstruction paradox, and then proposed that a feature decomposition approach will give a solution to this paradox. Further, the present analysis gives an interesting correlation between the moved phrase with a name and the unmoved phrase with the corresponding pronoun. Namely, the generalization in (37) holds. An apparent counter-examples to this generalization is naturally accounted for by Anderson/Oku's idea that English has two types of genitive pronouns. given the Burzio-type feature specification of names/R-expressions and pronouns and the Subset Copy Principle.

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