



2010

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Recommended Citation

Nakao, Chizuru (2010) "Japanese Left Node Raising as ATB-scrambling," *University of Pennsylvania Working Papers in Linguistics*: Vol. 16 : Iss. 1 , Article 18.
Available at: <https://repository.upenn.edu/pwpl/vol16/iss1/18>

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Chizuru Nakao *

1 Introduction

In this paper, I will examine properties of Japanese sentences such as (1a), which I call Left Node Raising (LNR). In LNR, two (or more) sentences are conjoined and a shared argument (e.g. *cake* in (1a)) is fronted to the leftmost position of the sentence, which is interpreted (in this case, as an object) in both conjuncts. In this respect, it looks like a mirror image of English Right Node Raising (RNR), where the shared element is postposed to the rightmost position as shown in (1b).

- (1) a. **Keeki-o** John-ga tukuri, (soshite) Mary-ga tabe-ta.
Cake-ACC John-NOM make, (and) Mary-NOM eat-PAST
“The cake, John made, and Mary ate.”
b. John made, and Mary ate **the cake**.

One might claim that the fronted element in LNR is not actually ‘shared’ by both conjuncts. Given that Japanese is a pro-drop language and it allows scrambling, it should be possible to derive the LNR sentence (1a) as shown in (2), where the apparent ‘shared’ NP scrambles within the first conjunct, and the gap in the second conjunct is a pro that refers to it.

- (2) Keeki₁-o John-ga **t₁** tukuri, (soshite) Mary-ga **pro₁** tabe-ta.
Cake-ACC John-NOM make, (and) Mary-NOM eat-PAST

If this is the case, LNR is a variant of Null Object Construction (NOC) such as (3), and you do not need to posit a special construction called LNR. It is possible to conjoin sentences in NOC as shown in (4a), and it is also possible to front the object in the first sentence as shown in (4b). The derivation of LNR proposed in (2) is a mere combination of these two operations.

- (3) John-ga **keeki-o** tukut-ta. Mary-ga **pro₁** tabe-ta.
John-NOM **cake-ACC** make-PAST Mary-NOM eat-PAST
“John made a cake. Mary ate (it).”
(4) a. John-ga **keeki-o** tukuri, Mary-ga **pro₁** tabe-ta.
John-NOM **cake-ACC** make-PAST Mary-NOM eat-PAST
“John made the cake, and Mary ate (it).”
b. **Keeki-o** John-ga tukut-ta. Mary-ga **pro₁** tabe-ta.
Cake-ACC John-NOM make-PAST Mary-NOM eat-PAST
“The cake, John made. Mary ate (it).”

Although the derivation in (2), in principle, *should* be possible, I will argue that it is not the real derivation of LNR. Instead, I will propose that LNR must be analyzed as an instance of ATB-scrambling of the shared element, as illustrated in (5).

- (5) **Keeki-o** John-ga **t₁** tukuri, (soshite) Mary-ga **t₁** tabe-ta.
Cake-ACC John-NOM make, (and) Mary-NOM eat-PAST

Below, I will show that LNR such as (1a) behaves differently from NOC such as (3) (and its variants in (4)) in a number of respects, and argue that LNR is derived via ATB-movement rather

*A more detailed version of this work is Chapter 5 of Nakao (2009), and a related work is published as Abe and Nakao (2009). I am grateful to the following people for their helpful comments and advice: Jun Abe, Norbert Hornstein, Maki Kishida, Howard Lasnik, Jeffrey Lidz, Akira Omaki, Paul Pietroski, Masaya Yoshida, Akira Watanabe, the audience at University of Maryland Syntax Lunch Talk, the audience at PLC 33, and the audience at SICOGG 11.

than as shown in (2). If this line of analysis is on the right track, it suggests that the derivation (2) somehow must not be available when there is an alternative ATB-movement derivation in (5).

The rest of the paper is organized in the following way. Section 2 displays four behavioral differences between LNR and NOC and argues that LNR is derived via ATB-scrambling. In Section 3, however, I will show that LNR allows a resumptive *pro* strategy only when ATB-movement is blocked because of an island, which illustrates the ‘last resort’ nature of resumptive pronouns. Section 4 illustrates two other alternative analyses of LNR and point out their potential problems. Section 5 concludes the paper.

2 Differences between LNR and NOC

2.1 Case Matching Effects

The first difference between LNR and NOC comes from Case matching effects. In LNR, the fronted object must match in Case with both the first conjunct predicate and the second conjunct predicate. For example, in (7a), the first conjunct predicate ‘send a flower to’ gives Dative Case to *Mary*, and the second conjunct predicate ‘comfort’ takes an Accusative object. In such an environment, LNR is degraded. The same is true when the Dative-assigning predicate and the Accusative-assigning predicate are reversed as in (7b), where the first predicate ‘invite to dance’ assigns Accusative Case, and the second predicate ‘write a love letter to’ assigns Dative Case.

- (7) a. ??**Mary-ni** John-ga hana-o okuri, Tom-ga nagusame-ta.
Mary-DAT John-NOM flower-ACC send, Tom-NOM comfort-PAST
 “(To) Mary, John sent a flower, and Tom comforted.”
 b. ??**Mary-o** John-ga dansu-ni sasoi,
Mary-ACC John-NOM dance-to invite,
 Tom-ga rabu retaa-o kai-ta.
 Tom-NOM love letter-ACC write-PAST
 “(To) Mary, John invited to a dance, and Tom wrote a love letter.”

On the other hand, *pro* in NOC does not have to have the same Case as its antecedent. In (8a), the indirect object *Mary* in the first sentence has Dative Case, and the *pro* in the second sentence gets Accusative Case. In this example, the Accusative *pro* can refer to the Dative antecedent. Similarly, *pro* in the Dative position can refer to an Accusative antecedent, as shown in (8b).

- (8) a. **Mary-ni** John-ga hana-o okut-ta.
Mary-DAT John-NOM flower-ACC sent-PAST
 Tom-wa **pro** nagusame-ta.
 Tom-TOP comfort-PAST
 “John gave a flower to Mary. Tom comforted (her).”
 b. **Mary-o** John-ga dansu-ni sasot-ta.
Mary-ACC John-NOM dance-to invite-PAST
 Tom-wa **pro** rabu retaa-o kai-ta.
 Tom-TOP love letter-ACC write-PAST
 “John invited Mary to a dance. Tom wrote a love letter (to her).”

2.2 Sloppy Reading and Honorification

Japanese has honorific nouns solely used for superior people’s belongings, relatives, etc. For example, the honorific noun *ozyoosama* ‘daughter_(Hon)’ refers to someone superior’s daughter such as ‘the teacher’s daughter’, and thus cannot refer to ‘my daughter’. On the other hand, the regular noun *musume* ‘daughter’ can refer to anyone’s daughter.

Given this distinction, consider the examples in (9). (9a) has an intended reading where John went to see off *his* daughter and I went to pick up *my* daughter. In such a reading, the noun *musume* ‘daughter’ simultaneously refers to two different daughters. Let us call this a ‘sloppy

reading' of LNR.¹ Some speakers I consulted do not like the sloppy reading of (9a). Even for the speakers who accept sloppy reading, however, such a reading is impossible if there is honorification mismatch as shown in (9b). The fronted NP *ozyoosama* 'daughter_(Hon)' can refer to the 'teacher's daughter' but it should not be interpreted as 'my daughter.' Thus, the sloppy reading is blocked in (9b).

- (9) a. Musume-o John-wa kuruma-de miokuri-ni iki,
 Daughter-ACC John-TOP car-by see-off-to go,
 boku-wa densya-de mukae-ni it-ta.
 I-TOP train-by pick-up-to go-PAST
 "Our daughters, John went to see off by car, and I went to pick up by train."
 b. ***Ozyoosama-o** sensei-wa kuruma-de omiokuri-ni ik-are,
Daughter_(Hon)-ACC teacher-TOP car-by see-off_(Hon)-to go-HON,,
 boku-wa densya-de mukae-ni it-ta
 I-TOP train-by pick-up-to go-PAST
 "Our daughters_(Hon), the teacher went_(Hon) to see off_(Hon) by car, and I went to pick up by train."

Now consider the corresponding NOC sentences. (10a) shows that NOC also allows the sloppy reading. This sloppy reading, unlike in the case of LNR, is possible even when there is honorification mismatch, as exemplified in (10b). When the context makes it clear that you are talking about each person's daughter, the pro in the second sentence, which refers to 'my daughter' can take an honorific NP *ozyoosama* 'daughter_(Hon)' as its antecedent.

- (10) a. Musume-o John-wa kuruma-de miokuri-ni it-ta.
 Daughter-ACC John-TOP car-by see-off-to go-PAST
 Boku-wa **pro** densya-de mukae-ni it-ta.
 I-TOP train-by pick-up-to go-PAST
 "John went to see his daughter off by car. I went to pick (mine) up by train."
 b. ?**Ozyoosama-o** sensei-wa kuruma-de omiokuri-ni ik-are-ta.
Daughter_(Hon)-ACC teacher-TOP car-by see-off_(Hon)-to go-HON-PAST
 Boku-wa **pro** densya-de mukae-ni it-ta.
 I-TOP train-by pick-up-DAT go-PAST
 "The teacher went_(Hon) to see off_(Hon) his daughter_(Hon) by car. I went to pick (mine) up by train."

2.3 Distributive Scoping

As Abels (2004) shows, the shared element in the rightmost position of English RNR can get a so-called 'distributive scoping' reading. For instance, (11a) allows the reading where "the song John sang and the song Mary recorded were two quite different songs." In this reading, the shared element *two quite different songs* is interpreted distributively in both conjuncts. On the other hand, the example (11b), where *two quite different songs* is inside of both conjuncts, does not have this reading (Abels 2004:51).

- (11) a. John sang, and Mary recorded, *two quite different songs*.
 b. John sang *two quite different songs*, and Mary recorded *two quite different songs*.

Similarly to English RNR, Japanese LNR allows the distributive scoping reading. For example, *two separate songs* in (12) can distribute over two conjuncts of LNR; in the same way as (11a), it allows the reading where "John sang one song and Mary recorded one song, and the two songs were two separate songs."

¹Alternatively, the strict reading where I went to pick up the same person that John went to see off is possible, but only when the context makes it clear whose daughter you are talking about.

- (12) *Hutatu-no betubetu-no kyoku-o John-ga utai, Mary-ga rokuonsi-ta.*
Two-GEN separate-GEN song-ACC John-NOM sing, Mary-NOM record-PAST
 “Two separate songs, John sang, and Mary recorded.”

On the other hand, the NOC example (13) does not allow distributive scoping. The only interpretation is the one under which “John sang two separate songs and Mary recorded those two songs.” This is another difference between LNR and NOC.

- (13) *Hutatu-no betubetu-no kyoku-o John-ga utat-ta.*
Two-GEN separate-GEN song-ACC John-NOM sing-PAST
Mary-ga pro rokuonsi-ta.
Mary-NOM record-PAST
 “John sang two separate songs. Mary recorded (them).”

2.4 Interrogative Complements

Finally, there is a discrepancy between what can be the shared element of LNR and what can be an antecedent of *pro* in NOC. A complement clause that includes a *wh*-phrase inside it (Tanaka, 2008 calls it an ‘interrogative complement’) can be the shared element in LNR, as shown in (14).

- (14) [_{CP} Taroo-ga nani-o tabe-ta to] Hanako-ga ii
 Taroo-NOM what-ACC eat-PAST C Hanako-NOM say
 Sachiko-ga sinzi-tei-ru no?
 Sachiko-NOM believe-PROG-PRES Q
 “lit. [That Taroo ate what] does Hanako say and Sachiko believes?
 “meaning. What does Hanako say that Taroo ate and Sachiko believes that Taroo ate?”

However, as Tanaka (2008) points out, an interrogative complement is incompatible with NOC. The intended reading of the second clause in (15) is the one where the *nani-o* ‘what-Acc’ inside the interrogative complement gets a matrix question interpretation, but such a sentence is excluded.²

- (15) Hanako-ga [Taroo-ga nani-o tabe-ta to] omot-tei-ru no?
 Hanako-NOM Taroo-NOM what-ACC eat-PAST C think-PROG-PRES Q
 *Sachiko-mo pro omot-tei-ru no?
 Sachiko-also think-PROG-PRES Q
 “What does Hanako think that Taroo ate? What does Sachiko think (that Taroo ate)?”

Tanaka (2008) attributes the impossibility of NOC to the fact that an interrogative complement cannot be a topic as shown in (16), concluding that a null object in NOC undergoes topicalization.

- (16) [Taroo-ga nani-o tabe-ta to](**-wa*) Hanako-ga omot-tei-ru no?
 Taroo-NOM what-ACC eat-PAST C *-TOP* Hanako-NOM think-PROG-PRES Q
 “What does Hanako think that Taroo ate?” (Tanaka, 2008)

I will not explore the exact status of NOC in detail here. Whatever the source of the unacceptability of (15), it does not extend to the LNR example in (14). This is another piece of evidence that LNR should not be treated on a par with NOC.

2.5 LNR as ATB-movement

The above four differences suggest that LNR is not a variant of NOC, as illustrated in (2) (repeated here).

²Tanaka (2008) also argues that what we call a *pro* in NOC is derived by deletion. I will tentatively represent the null argument in NOC as *pro* in the examples cited here.

- (2) Keeki₁-o John-ga **t**₁ tukuri, (soshite) Mary-ga **pro**₁ tabe-ta.
 Cake-ACC John-NOM make, (and) Mary-NOM eat-PAST

Especially, the data of Case and honorification matching show that the shared element in LNR must be identical in form in the two gap positions. Based on these observations, I propose that LNR is derived via ATB-movement, presumably ATB-scrambling, as (5) illustrates (repeated here); both gap positions in LNR are traces rather than pro.

- (5) **Keeki₁-o** John-ga **t**₁ tukuri, (soshite) Mary-ga **t**₁ tabe-ta.
Cake-ACC John-NOM make, (and) Mary-NOM eat-PAST

As is observed in the polish example (17), ATB-movement of a wh-phrase also shows Case matching effects (Citko, 2003; See also Dylą, 1984; Franks, 1993, 1995). This similarity between LNR and standard ATB wh-movement supports the ATB-movement analysis of LNR.

- (17) a. *Co*_{ACC} Jan lubi *t*_{ACC} i Maria uwielbia *t*_{ACC}? (Citko, 2003)
 What Jan likes and Maria adores
 “What does Jan like and Maria adore?”
 b. **Co*_{ACC} Jan lubi *t*_{ACC} i Maria nienawidzi *t*_{GEN}?
 What Jan likes and Maria hates
 “What does Jan like and Maria hate?”

3 LNR and Null Resumptive Pronouns

3.1 Island Constraints and LNR

This section considers LNR that involves islands. The example (18) is excluded because it involves scrambling of the NP ‘the wallet-ACC’ out of a complex NP. The fact is compatible with both the NOC analysis of LNR in (2) and the ATB-movement analysis in (5). Because the first gap of LNR is a trace in both (2) and (5), its island-sensitivity is expected.

- (18) ***Sonosaihu-o** John-ga [**t** hirot-ta hito]-o sagasi,
The wallet-ACC John-NOM pick-up person-ACC look-for
 Mary-ga [**t** nusum-ooto si-ta otoko]-o oikake-ta.
 Mary-NOM steal-to do-PAST man-ACC chase-PAST
 “The wallet, John looked for [the person who picked up _], and Mary chased [the man who tried to steal _].”

On the other hand, only the analysis in (5) expects island-sensitivity of the second gap of LNR because the second gap is pro rather than a trace in the analysis in (2). (19) is an example where only the second gap is included in an island.

- (19) (*)**Sono saihu-o** John-ga t hiroi,
The wallet-ACC John-NOM pick-up
 Mary-ga [**t** nusum-ooto si-ta otoko]-o oikake-ta.
 Mary-NOM steal-to do-PAST man-ACC chase-PAST
 “The wallet, John picked up _ , and Mary chased [the man who tried to steal _].”

Among my six informants, four (including myself) accept (19). For the two speakers who do not accept (19), it indicates that the second gap of LNR is also derived via movement. Thus our ATB-movement analysis is partially supported.

The four speakers who accept (19) (including myself), on the other hand, are apparently problematic. Their intuition seems to run against the ATB-movement analysis. However, further investigation of the data reveals that this type of sentence, even for those who accept it, does not display the properties of LNR anymore.

First, (20) shows that the Case matching effects are absent from LNR with an island, unlike

the examples of LNR without an island (e.g. (7)). In (20), the first clause predicate is an Accusative-assigning verb ‘comfort’ and the second clause predicate inside the island is the verb ‘kiss’, which assigns Dative Case. Despite this Case mismatch, however, (20) is as good as (19) for the speakers who accept (19).

- (20) **Sono zyoyuu₁-o** John-ga nagusame,
The actress-ACC John-NOM comfort
 Mary-ga [**e₁** kisu-si-ta stookaa]-o oikake-ta.
 Mary-NOM kiss-do-PAST stalker-ACC chase-PAST
 “The actress, John comforted and Mary chased [the stalker who kissed].”

Second, distributive scoping is unavailable in an example of LNR with an island such as (21). This is another indication that such an instance does not behave in the same way as an example of LNR without an island such as (12).

- (21) *Hutatu-no betubetu-no kyoku₁-o* John-ga utai,
Two-GEN separate-GEN song-ACC John-NOM sing
 Mary-ga [**e₁** rokuonsi-ta hito]-ni at-ta.
 Mary-NOM record-PAST person-DAT meet-PAST
 “Two separate songs, John sang and Mary met [the person who recorded].”

Based on these facts, I argue that speakers who accept LNR with an island in the second clause employ a resumptive pro strategy, while LNR without an island involves ATB-movement.³ Recall that the differences between NOC and LNR discussed in Section 2 shows that the second gap in LNR (without an island) should *not* be treated as pro. That is, a resumptive pro is only available when ATB-movement is blocked due to an island violation.

3.2 Resumptive Pronouns as a Last Resort

The above conclusion that insertion of a resumptive pronoun is possible only when movement is blocked is not surprising. It is often claimed that resumptive pronouns are a ‘last resort’ to save otherwise illicit movement (Shlonsky, 1992; McDaniel and Cowart, 1999; Aoun, Choueiri and Hornstein, 2001). For example, the contrast in (22) shows that English resumptive pronouns are not acceptable without an island violation (e.g. (22b)).

- (22) a. I’d like to meet the linguist that Mary couldn’t remember [if she had seen **him** before].
 (Chao and Sells, 1983)
 b. *I’d like to meet the linguist that Mary had seen **him**.

The same has been claimed for cases of null resumptive pronouns. Ishii (1991) argues that Japanese relativization is derived via operator movement, but a resumptive pro strategy is available only when this movement is blocked because of an island. Below I will review his arguments.

(23a) is an example of Japanese relative clauses. In Japanese, the head noun (e.g. ‘clothes’) shows up on the right side of the relative clause. Since the object of the verb ‘wear’ is relativized in this example, there is a gap in the object position of the relative clause (indicated as *e₁*).

- (23) a. [_{NP} [_S sono sinshi-ga *e₁* ki-tei-ru] yoohuku₁]
 the gentleman-NOM wear-PROG-PRES clothes
 “The clothes that the gentleman is wearing”

³However, what I claim is resumptive pro, which is involved in LNR with an island, does not behave exactly parallel to what I call pro in NOC. For example, the former is still compatible with an interrogative complement, unlike the latter. Nakao (2009) thus notes that the differences may suggest that pro in NOC is actually argument deletion (Kim, 1999, among others; See, also, Note 2) while the resumptive pro in LNR with an island is a genuine null pronoun.

- b. [NP [S [NP [S e₂ e₁ ki-tei-ru] yoohuku₁]-ga yogore-tei-ru] sinsi₂]
 wear-PROG-PRES clothes-NOM be-dirty-PROG-PRES gentleman
 “The gentleman that [[the clothes that (he) is wearing] is dirty]”

Japanese relative clauses are claimed to be island-insensitive. For example, ‘relativization out of a relative clause’ is possible, as illustrated in (23b). That is, you can take up the structure in (23a) and further relativize another NP *sinsi* ‘gentleman’ inside the relative clause, as shown in (23b).

Ishii (1991) shows, however, that such relativization out of a relative clause behaves differently from simple relativization in a number of respects. Specifically, he shows that only simple relativization, but not relativization out of a relative clause, shows typical properties of movement. Based on such observations, he argues that simple relative clauses such as (23a) involve movement of a null operator as illustrated in (24a), while the second relativization in (23b) employs a resumptive pro that is coindexed with the head noun, as shown in (24b).

- (24) a. [NP [S' Op₁ [S sono sinsi-ga t₁ ki-tei-ru]] yoohuku₁]
 the gentleman-NOM wear-PROG-PRES clothes
 b. [NP [S [NP [S' Op₁ [S pro₂ t₁ ki-tei-ru] yoohuku₁]-ga yogore-tei-ru] sinsi₂]
 wear-PROG clothes-NOM be-dirty-PROG-PRES gentleman

One of his arguments involves reconstruction effects. Japanese relative clauses show reconstruction effects with reflexives *kare-zisin* ‘him-self’. When the head noun of a relative clause includes a reflexive as shown in (25a), it can refer to the subject *John* inside the relative clause.⁴ On the other hand, the reconstruction effect is not observed in relativization across an island. In (25b), the outer relative clause is headed by an NP that includes *kare-zisin*, and this relativization crosses another relative clause that is headed by ‘person’. In such a configuration, the sentence is degraded, which shows that the reflexive is not reconstructed inside the embedded clause.

- (25) a. [[John₂-ga e₁ taipu-si-ta] kare-zisin₂-no ronbun₁]
 John-NOM type-do-PAST him-self-GEN paper
 “himself₂’s paper₁ that John₂ typed” (slightly modified from Ishii, 1991: 29)
 b. ?*[Mary-ga [[John₃-ga e₁ e₂ mise-ta koto-ga aru]
 Mary-NOM John-NOM show-PAST thing-NOM exist
 hito₁]-o sit-tei-ru] kare-zisin₃-no syasin₂
 person-ACC know-PROG-PRES him-self-GEN picture
 “himself₃’s picture₂ that Mary knows the person₁ who John₃ showed” (Ishii, 1991: 30)

Assuming that reconstruction effects are a signature property of movement, Ishii takes this contrast as an indication that only (25a) involves movement.

Based on this and other observations, Ishii (1991) argues that simple relativization involves operator movement and a resumptive pro is inserted in relativization out of a relative clause (See Ishii 1991 for other arguments); he concludes that the latter resumption strategy is available only when the operator movement is blocked by the existence of an island. The argument in the previous subsection that the use of resumptive pro in LNR is also limited to the island-violating cases

⁴Unlike *kare-zisin* ‘him-self’, another reflexive pronoun *zibun* ‘self’ does not exhibit a reconstruction effect into relative clauses (Hasegawa, 1988: 59).

- (i) *[John₂-ga e₁ taipu-si-ta] [zibun₂-no ronbun₁]
 John-NOM type-do-PAST self-GEN paper
 “self₂’s paper that John₂ typed”

Ishii (1991) assumes that reconstruction effects in some cases are due to chain binding (Barss, 1986) rather than ‘literal’ reconstruction (e.g. lowering). He further assumes that *zibun* is an operator that undergoes LF-movement to VP (Katada, 1989; see also Abe, 1990), and argues that LF-movement of *zibun* will violate Proper Binding Condition in examples such as (i). Thus, *zibun* shows reconstruction effects only with movement that allows literal reconstruction (e.g. scrambling; See Saito’s 1989 argument that scrambling can be undone at LF).

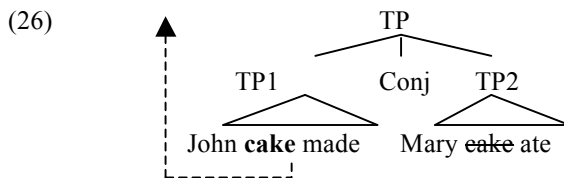
reaches the same conclusion. The fact that only simple LNR but not LNR with an island show ATB-movement properties thus corroborates the view where resumptive pro is a ‘last resort’ strategy.⁵

4 Alternative Analyses

4.1 The Deletion Analysis

Above, I analyzed Japanese LNR (without an island) as an instance of ATB-movement (e.g. (5)) rather than NOC, based on the fact that it behaves differently from NOC and the fact that it shows Case-matching effects in the same way as ATB-movement. However, the ATB-movement analysis is not the only conceivable analysis other than the NOC analysis. I will illustrate two other alternative analyses in this section.

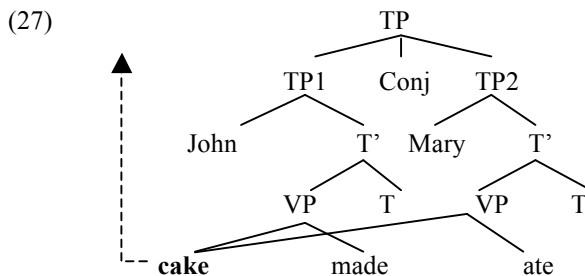
The first alternative analysis is the deletion analysis. Under the deletion analysis, the second instance of ‘cake’ in (1a) undergoes deletion and thus is not pronounced, as illustrated in (26).



However, recall that LNR is a construction where the shared element is pronounced in the left edge of the sentence as shown in (26), not just in the object position of a leftmost conjunct. The conjunction of multiple clauses with the first clause object in-situ is possible as we have seen in (4a), but such a sentence does not show the properties of LNR, unlike the example in (1a). Therefore, to derive the word order in (1a), the LNR structure must involve scrambling in the first clause, as illustrated by the dotted line in (26), as well as deletion in the second clause. However, there is a potential problem as to why the deletion in the second clause that derives LNR is available only when there is scrambling in the first clause. In other words, if LNR is deletion, why (4a) cannot be an instance of LNR remains unclear. This is the first problem with the deletion analysis.

4.2 The Multiple Dominance Analysis

Another possible analysis of LNR is the multiple dominance analysis, illustrated in (27) (See also Chung, 2009). In this structure, the fronted shared object is multiply dominated by two VPs in the two conjuncts.



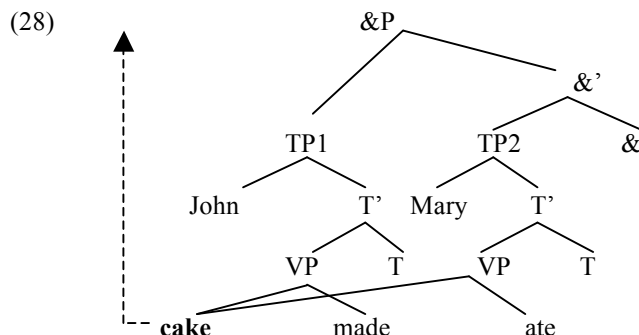
In this analysis, too, the same word order problem as in the deletion analysis arises. You need an extra account of why multiple domination is possible only when there is fronting of the shared object.

Citko’s (2005) analysis provides such an account. She claims that in a multiple dominance structure, the element that is parallelly merged to two phrases (e.g. two VPs in (27)) must

⁵See Hornstein’s (2003) analysis of non-obligatory control for a similar conclusion.

eventually c-command both of the phrases to be linearized. According to the Linear Correspondence Axiom proposed by Kayne (1994), precedence relationships in linearization are directly mapped from c-command relationships: an element A linearly precedes another B if and only if A c-commands B. Citko points out that, if the shared element of a multiple domination structure stays in situ, it cannot be linearized according to the LCA.

Citko (2005) is assuming an analysis of conjunction where two conjuncts are asymmetrically connected via the head '&', as shown in (28). In this structure, TP1 c-commands TP2. Thus, everything that is dominated by TP1 needs to precede everything that is dominated by TP2 according to LCA. Here the contradiction arises. As 'cake' is dominated by both TP1 and TP2, it has to precede itself, which is impossible.



However, if the shared element 'cake' moves to a position that c-commands both TP1 and TP2, it can be linearized before all other elements in both conjuncts and no self-contradicting requirement arises. Thus, Citko (2005) claims that the parallelly-merged element must move to a c-commanding position. Under this version of the multiple dominance analysis, why the movement of the shared element is required in LNR is satisfactorily explained.

However, this multiple dominance analysis also does not contradict my ATB-movement analysis of LNR. Citko (2005) treats standard ATB-movement (e.g. English ATB wh-movement such as in (29)) as multiple dominance.

(29) What did John recommend and Mary read?

If ATB movement *is* multiple dominance, the multiple dominance analysis of LNR would be compatible with my proposal that LNR is ATB-movement. I leave open here whether what I call ATB-movement should be further analyzed as an instance of multiple dominance.

5 Conclusion

In this paper, I discussed properties of Japanese Left Node Raising (LNR) and claimed that the 'shared element' of LNR undergoes ATB-movement. A variety of differences between LNR and Null Object Construction (NOC) show that LNR should *not* be treated as a variant of NOC.

I have shown, however, that some of the properties of LNR disappear when the second gap position of LNR is included inside an island. I claimed that this type of example involves a resumptive pro strategy. The second gap position is interpreted as a null resumptive pronoun only when ATB-movement is blocked due to the existence of an island, which illustrates the 'last resort' nature of resumption.

I also considered two other alternative analyses of LNR. The deletion analysis would be problematic because it does not explain the necessity of leftward movement in the LNR configuration. The multiple dominance analysis, on the other hand, does account for the necessity of leftward movement (Citko, 2005). This analysis is compatible with my ATB-movement analysis, because ATB-movement is further attributed to multiple dominance under this analysis.

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