The Repetitive Coordinator *to* in Japanese as a Postposition

Ryoichiro Kobayashi
Sophia University, Graduate School of Foreign Studies

Abstract

The purpose of this paper is to argue that the repetitive coordinator *to* (RC-*to*) in Japanese is actually a postposition, against the claim that it is a focus particle along with RCs in other languages. Asada (2014) points out that RC-*to* is incompatible with the predicational copula clauses, and Ga/No-conversion (GNC) due to the focus related nature of RC-*to*, which is similar to *dake* 'only'. Under scrutiny, however, RC-*to* lacks the quantificational nature of focus particles unlike RCs in other languages (Kasai and Takahashi 2001). Pointing out mismatches between the distribution of RC-*to* and *dake*, I propose an alternative analysis that RC-*to* is actually a comitative postposition -*to*, which better explains its restricted distribution in copula clauses and GNC (Ochi 2004).

1. Introduction

1.1 RC-*to* in the previous literature

One of the characteristics of *to* 'and' in Japanese is that they occasionally occur as the form A-*to* B-*to*. RC-*to* in Japanese has been considered, in some studies, as the duplicated form of the morphologically identical element *to* in the directly preceding coordinate phrase *A-to B*. In the previous studies (Fukui and Sakai 2003, Vermeulen 2008), it has been assumed that RC-*to* is totally optional; neither does it change the distribution or meaning of the coordinate phrase.

(1)
a. John *to* Mary *to* Bill-ga kekkonsita
J. CONJ M. CONJ B.-NOM marry-past
'John, Mary and Bill got married'
b. John *to* Mary *to* Bill ***to***-ga kekkonsita
CONJ CONJ **RC-*to***
'John, Mary and Bill got married'

(2)
a. John *to* Mary-ga baka da
J. CONJ M.-NOM fool COP
'John and Mary are fool'
b. John *to* Mary ***to***-ga baka da
CONJ **RC-*to***
'John and Mary are fool'
(Kuno 1973:116-117)

However, Asada (2014) pointed out that the distribution of RC-*to* is more restricted than the mere coordinate phrase *A-to B*. Based on Zhang's (2008) claim that RCs are cross-linguistically focus-related elements, Asada analyzes that RC-*to* is also a focus particle with an implicature of exhaustivity, which is similar to *dake* 'only'.

The organization of the article is as follows. In the rest of Section 1, analyses of RCs as focus particles are reviewed (Asada 2014, Zhang 2008, Hendriks 2004 and others). In Section 2, I point out that RC-*to* is fundamentally different from RCs in other languages, referring to Kasai and Takahashi's (2001) analysis on the coordinator *to* and evidence from LF-intervention effects (Hoji 1985 and others). Section 3 then presents an alternative analysis that RC-*to* is actually a comitative postposition -*to* with some consequences discussed in its subsections. In Section 4, we will see some data of non-constituent coordination from Fukui and Sakai (2003), which lends credence to the postpositional analysis of RC-*to*. We are now ready to discuss the categorical issues on RC-*to* in Japanese.

1.2 Common features of RCs and the focus particles

Let us first review Zhang's (2008) work on the repetitive and correlative coordinators (e.g. *both* A and B). Referring to the cross-linguistic data in the previous studies (Payne 1985, Progovac 1999, Stassen 2000 and others), Zhang claims that the repetitive and correlative coordinators cross-linguistically share several properties in common: (i) The distributive reading (multiple event reading) is obligatory with the repetitive and correlative coordinators; (ii) they function in parallel with other focus particles; and (iii) they have the common distribution with focus particles. In this paper, I will only refer to the first and the second points in this paper due to limitation of space.

Based on the fact that the RCs have the obligatory distributive (multiple event) reading (see section 3), Hendriks (2004) and Johannessen (2005) analyze that the correlative coordinators such as *both* in *both* A *and* B function in parallel with additive focus particles (*also, too*). Focus particles generally quantify over a set of relevant alternatives, which means that they provide alternative values either additive or restrictive, with the propositions that they attach to (König, 1991).

(3) a. Mary had the rice and the beans.
b. Mary had the rice and the beans **too**.
c. Mary had the rice and **also** the beans.

In (3b) and (3c), the additive focus particle *too* and *also* are attached to the focused phrase *the beans*. The first conjunct of the coordinate phrase, the rice explicitly gives the alternative value to the denotation of *the beans* (Hendriks 2004), which states that *someone (Mary) had the beans in addition to something (the rice)*.

On the other hand in (4b), *both* does not seem to include or exclude alternative values for the focused phrase: Neither does it imply that Mary did not eat any other food, such as *the potatoes*, or does it entail that she also ate some other food.

(4) a. Mary had the rice and the beans.
b. Mary had **both** the rice and the beans.

However, given that the correlative and repetitive coordinators such as *both A and B* always gain the distributive (multiple event) reading, the first conjunct, to which *both* is attached, gives the alternative value to the whole coordinate phrase. Therefore, in (4b) below, *both* functions in a similar manner as the other additive focus particles, *also* and *too. Both* explicitly gives the alternative value *someone (Mary) had the rice, in addition to something (the beans)*, excluding interpretations such as *she had the rice and the beans together simultaneously* (collective, single event readings).[1]

One of the apparent differences between Japanese RC-*to*, and the correlative and repetitive coordinators in other languages is that the former does not obtain the obligatory distributive (multiple event) reading, which consequently means that they are different from focus particles in a fundamental way: RC-*to* does not add alternative values to the propositions unlike additive/restrictive focus particles.

1.3 RC-*to* as a focus particle

Asada (2014) pointed out that the distribution of the coordinate phrases is more restricted when RC-*to* is present. Specifically, she showed that (i) RC-*to* is incompatible with Ga/No-conversion (GNC) as in (5); and that (ii) RC-*to* does not occur in the predicational copula clauses, which is illustrated in (6).[2]

(5) a. [Taroo *to* Ziroo] -ga/-no nonda wain
Taroo CONJ Ziroo -NOM/-GEN drank wine
'the wine that Taroo and Ziroo drank'

b. [Taroo *to* Ziroo ***to***] -ga/*?-no nonda wain
CONJ **RC-*to***
'the wine that Taroo and Ziroo drank' (Asada 2014:99)

c. [T. dake-ga/* no tanonda] ryoori wa esukarugo ryoori desita
T. only-NOM/GEN ordered dish-TOP escargot dish COP
'The dish that only Taroo ordered was an escargot dish'
(Horie and Saito 1996:142)

(6) a. Taroo *to* Ziroo *to* Hanako-wa satuzinhan *to* sono itimi datta
T. CONJ Z. CONJ H.-TOP murderer CONJ its clan COP-past
'Taro, Ziroo and Hanako were a murderer and its clan'

b. *Taroo to Ziroo to Hanako-wa satuzinhan *to* sono itimi ***to*** datta
CONJ **RC-*to***

c. *Taroo to Ziroo to Hanako-wa satuzinhan *to* sono itimi ***dake*** datta
CONJ ***-only***
'Taro, Ziroo and Hanako were only a murderer and its clan'
(Asada 2014:99)

Based on Zhang's (2008) analysis that the repetitive and correlative coordinators (*both A and B* in English, for example) cross-linguistically function as focus particles, Asada claims that RC-*to* also denotes the implicature of exhaustivity in the similar manner as *dake* does. If RC-*to* is a focus particle, the predictions will be borne out that the (i) GNC is impossible for the general ban on focus in genitive subject position of embedded clauses as illustrated in (5c); and (ii) that the non-occurrence of RC-*to* after the predicate nominal in (6) is induced by the exhaustive specification of RC-*to*, which creates semantic incompatibility between the predicates and RC-*to* in a similar manner as *dake* does.

2. Problems with analyzing RC-*to* as a focus particle

2.1 No obligatory distributive reading with RC-*to*

Cross-linguistically, the correlative and repetitive coordinators obligatorily obtain distributive reading. This is equivalent to Kuno's (1973) analysis of the S(entetial)-conjunction as opposed to the P(hrasal)-conjunction as illustrated in (7). Kuno states that the interpretation of the sentence (7a) depends on whether *to* conjoins nominal phrases (NPs in 7b) or sentences (S in 7c).

(7) S-conjunction and P-conjunction in Japanese

a. John *to* Mary-ga kekkonsita
John CONJ Mary-NOM married
'John got married with Mary'

b. [$_{NP}$[$_{NP}$John] *to* [$_{NP}$Mary]]-ga kekkonsita
P-conjunction: *John and Mary became husband and wife*

c. [$_{S}$ [$_{S}$ John ~~-ga kekkonsita]~~ *to* [$_{S}$ Mary-ga kekkonsita]]
S-conjunction: *John got married, and Mary got married to someone else*

(Adapted from Kuno 1973:114)

Under the current theory of correlative and repetitive coordinators, Kuno's (1973) P-conjunction corresponds to the collective/single event reading, and S-conjunction, the distributive/multiple event reading. As already noted in subsection 1.2, RCs in other languages impose obligatory distributive reading. However, as Kasai and Takahashi (2001) shows that RC-*to* lacks this property as in (11) in contrast to French (8), Italian (9) and English (10).

(8) French

a. Jean connaît Paul *et* Michel
Jean knows Paul CONJ Michel
'Jean knows both Paul and Michel'
'Jean knows Paul and Michel'

b. Jean connaît ***et*** Paul *et* Michel
RC CONJ
'Jean knows both Paul and Michel'
*'Jean knows Paul and Michel'

(Kayne 1994:58)

(9) Italian

a. Sono arrivati Anna *e* Roberto
are arrived Anna CONJ Roberto
'Both Anna and Roberto have arrived'
'Anna and Roberto have arrived'

b. Sono arrivati ***e*** Anna *e* Roberto.
RC CONJ
'Both Anna and Roberto have arrived'
*'Anna and Roberto have arrived'

(Progovac 1999:146)

(10) English

a. John *and* Mary came to the party with a bottle of whisky.

b. ***Both*** John *and* Mary came to the party with a bottle of whisky.

・Note that the number of the bottles of whisky is always two in (10b).

(11) Japanese

a. John to Mary-ga paatii-ni kita
J. CONJ M.-NOM party-to came

b. John *to* Mary **to**-ga paatii-ni kita
CONJ **RC-*to***
'Both J. and M. came to the party.'
'M. came to the party with J.'

(Kasai and Takahashi 2001:22)

The contrast between RC-*to* and RCs in other languages will be clearer in such contexts as (12) below where the total number of the bottles of whisky can either be one or two in Japanese.

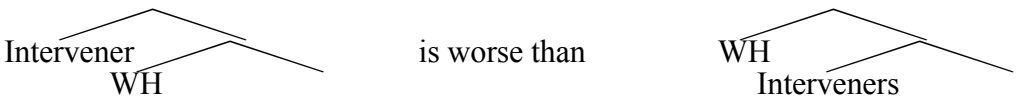
(12) a. Taroo *to* Hanako-ga uisukii-no botoru-o ippon motte paatii-ni kita
T. CONJ H.-NOM whisky-GEN bottle-ACC bring party-DAT came
'Taroo and Hanako came to the party with a bottle of whisky'
'Taroo and Hanako came to the party respectively with a bottle of whisky'
b. Taro *to* Hanako ***to***-ga uisukii-no botoru-o ippon motte paatii-ni kita
CONJ **RC-*to***
'Taroo and Hanako came to the party with a bottle of whisky'
'Taroo and Hanako came to the party respectively with a bottle of whisky'

RC-*to* obviously lacks this property of the correlative and repetitive coordinators, which obligatorily obtains distributive reading. In the next subsection, we will see that RC-*to* is different from focus elements such as *dake,* in that it lacks LF-intervention effects.

2.2 No LF-intervention effects with RC-*to*

First discovered in Hoji (1985), LF-intervention effects have been studied since then in many languages including Japanese. LF-intervention effects are observed in *wh*-interrogative sentences, when the *wh*-phrases are c-commanded by *interveners*. Interveners are often identified as quantificational expressions including focus particles and NPIs.[3]

(13) LF-intervention effects:
a. "Intervener > WH" is worse than "WH > Intervener"
(where A > B indicates *A c-commands B*)



b. It has been observed that sentences will be perfectly acceptable if the *wh*-phrases are scrambled and preposed as illustrated in examples b. of (14) through (18).

(14) *daremo (NPI; anyone)*

a.?* **Daremo** *nani-o* yom-ana-katta-no
anyone what-ACC read-neg-past-Q
'What did no one read?'

b. *Nani-o*$_i$ **daremo** t_i yom-ana-katta-no

(15) *sika (NPI; only)*

a.?* **Ken-sika** *nani-o* yom-ana-katta-no
Ken-except what-ACC read-neg-past-Q
What did no one but Ken read?'

b. *Nani-o*$_i$ **Ken-sika** t_i yom-ana-katta-no

(16) *daremo-ga (everyone)*

a. ?? **Daremo-ga** *nani-o* yon-da-no
everyone-NOM what-ACC read-past-Q
'What did everyone read?'

b. ***Nani-o*$_i$** daremo-ga ***t_i*** **yon-da-no**

(17) *dareka (someone)*

a. ?? **Dareka-ga** *nani-o* yon-da-no
someone-NOM what-ACC read-past-Q
'What did someone read?'

b. *Nani-o*$_i$ **dareka-ga** t_i yon-da-no

(18) *ka (or)*

a. ??? **[John-ka Bill]-ga** *nani-o* yon-da-no?
John-or Bill-NOM what-ACC read-past-Q?
'What did John or Bill read?'

b. *Nani-o*$_i$ **[John-ka Bill]-ga** t_i yon-da-no

(Tomioka 2007:1571-1572)

If RC-*to* is analyzed as a focus particle that carries an implicature of exhaustivity in a manner similar as *dake* 'only', we are led to assume that it also shows LF-intervention effects along with *dake*. However, this is not the case; RC-*to* lacks the intervention effects, while the effects are obviously present with *dake*.

(19) *dake (only)*

a. ??? **Ken-dake-ga** *nani-o* yon-da-no?
Ken-only-NOM what-ACC read-past-Q?
'What did only Ken read?'

b. *Nani-o*$_i$ **Ken-dake-ga** t_i yon-da-no

(20) RC-*to* with and without *dake (only)*

a. ??? **[Ken to Hanako-dake]-ga** *nani-o* yon-da-no?
Ken CONJ Hanako-only-NOM what-acc read-past-Q?
'What did only Ken and Hanako read?'

b. **[Ken *to* Hanako-*to*]-ga** *nani-o* yon-da-no?
CONJ -**RC-*to***-NOM

Given that the sentences become acceptable after scrambling *wh*-phrases to the front, the LF-intervention effects seem to be irrelevant for the surface movement. Rather, as the name shows, they are constraints on LF-movement, which ban *wh*-phrases to cross and to take scope wider over the interveners. While quantifiers and focus particles including *dake* show LF intervention effects, RC-*to* obviously lacks these effects.

2.3 The distributional differences between RC-*to* and *dake* in specificational copula clauses

Asada (2014) claims that the non-occurrence of RC-*to* in the predicational copula clauses is due to the semantic incompatibility between predicates that denote properties (not entity or individuals), and an exhaustive specification of RC-*to*, which is similar to *dake*. As for copula clauses in general, the complement refers to some properties or characteristics of element in the subject position. Based on Higgins's (1979) taxonomic work, Mikkelsen (2005) defines three types of copula sentences as follows:

(21) Three types of copula clauses:

a. Specificational: Specificational clauses do not predicate a property of the subject referent, but it specifies who or what the referent is.
   (i) The lead actress in that movie *is Ingrid Bergman*.

b. Predicational: Predicational clauses are similar to non-copular clauses in which VP expresses a property of the individual denoted by the subject:
   (i) Chris [$_{VP}$ ran a marathon in 3 hours and 27 minutes].
   (ii) Ingrid Bergman *is [the lead actress in that movie]*.
   Predicational clauses like (ii), along with non-copular clauses like (i), thus tell us something about the referent of the subject.

c. Equative: Equative clauses are said to involve two expressions denoting the same individual. The copular clause functions to equate the referents of the two elements.
   (i) She *is Ingrid Bergman*.

(Mikkelsen 2005:1-2)

We are then led to predict that RC-*to* can occur in specificational copula

clauses, which do not predicate a property of the subject referent; rather it refers to who or what the referent is (Mikkelsen 2005:1). However, this again is not the case; RC-*to* can not occur in the specificational copula clauses, even though they are compatible with *dake* as in (23).

(22) Predicational copula clauses

a. Taroo to Ziroo to Hanako-wa satuzinhan *to* sono itimi datta
Taroo CONJ Ziroo CONJ Hanako-TOP murderer CONJ its clan COP-past
'Taro, Ziroo and Hanako were a murderer and its clan'

b. *Taroo to Ziroo to Hanako-wa satuzinhan *to* sono itimi-***to*** data
CONJ **-RC-*to***
'Taro, Ziroo and Hanako were a murderer and its clan'

c. *Taroo to Ziroo to Hanako-wa satuzinhan *to* sono itimi-***dake*** datta
CONJ **-only**
'Taro, Ziroo and Hanako were only a murderer and its clan.'

(Asada 2014:99)

(23) Specificational copula clauses

a. Satuzinhan to sono itimi-wa Taroo *to* Ziroo *to* Hanako datta
murderer CONJ its clan-TOP Taroo CONJ Ziroo CONJ Hanako COP-past
'The murderer and its clan were Taro, Ziroo and Hanako'

b. *Satuzinhan to sono itimi-wa Taroo *to* Ziroo *to* Hanako-***to*** datta
CONJ CONJ **-RC-*to***
'The murderer and its clan were Taro, Ziroo and Hanako'

c. Satuzinhan to sono itimi-wa Taroo to Ziroo to Hanako-***dake*** datta
-only
'The murderer and its clan were only Taro, Ziroo and Hanako'

If RC-*to* is a focus particle, which carries an implicature of exhaustivity in a similar manner as *dake*, RC-*to* should be able to occur in specificational clauses as in (23c) above just as *dake* does. However, the evidence from other types of copula clauses than predicational ones contradicts with Asada's analysis of RC-*to*.

(24) The (in)compatibility of RC-*to*/*dake* & the copula clauses:

RC-*to*/*dake* / Types	[A *to* B]	[A *to* B]-***to*** (RC-*to*)	[A to B]-***dake*** (Foc)
Predicational	✔(22a)	*(22b)	*(22c)
Specificational	✔(23a)	*(23b)	✔(23c)

2.4 Interim Conclusion

In Section 2, we have observed several problems with Asada's analysis that RC-*to* is a focus particle that denotes exhaustivity. Empirical observations above require alternative explanations for the incompatibility of RC-*to* with GNC and the non-occurrence in copula clauses. In the next section, I will argue that RC-*to* is actually a comitative postposition, which is more plausible in accounting for its restricted distribution.

3. An alternative analysis for RC-*to* as a postposition

3.1 Non-occurrence of the postpositional RC-*to* in copula clauses

Although the details vary according to which types of copula clauses they are, the function of copula is generally to associate the subject with the complement, which refers to the property of the subject, or specifies it. All the three types of copula clauses in (21) are headed by the verb *be*. Rothstein (2004) and Asada (2011) make distinction between genuine uses of copula verb *be*, where *be* adds nothing to the meaning of the sentence and the other uses of the non-copula verb *be* such as existential, locative and agentive.

(25) existential

a. Be by ten o'clock.

b. There are two books on the table

(26) locative

Two books are on the table.

(27) agentive

John is being noisy.

(Asada 2011:42-43)

Although *be* is used, the function differs from copula verb *be* in the genuine copula clauses where the copula verb *be* denotes identity between the predicates and subjects. In (28a), the expression is interpreted as a specificational copula sentence in which *the deadline* is specified as *Monday*. On the other hand, in (28b), the complement of the verb *be* is PP, *by Monday*. Given the distinction between genuine copula clauses and the other constructions of the form *A-wa B*

da (A is B), such type of sentences as (28b) should not be called a copula sentence.

(28)

a. Simekiri-wa getsuyoobi da
the deadline-TOP Monday COP
'The deadline is Monday'

b. Simekiri-wa [$_{PP}$ getsuyoobi-***made***] da
-by
'The deadline is by Monday'

If the complement is PP, some sentences of the form *A-wa B da* (A is B) such as (29) below become unacceptable for the semantic incompatibility between the subject NP and the complement PP. In (29b), *to Hakata* does not specify the referent *the destination of Nozomi (a bullet train)*, which creates semantic incompatibility between the subject and complement.

(29)

a. Nozomi-no syuuten-wa Hakata da
Nozomi-GEN destination-TOP Hakata COP
'The destination of Nozomi is Hakata'

b. *Nozomi-no syuuten-wa [$_{PP}$ Hakata-***made***] da
-to
Lit. 'The destination of Nozomi is to Hakata'

If this line of arguments is on the right track, the coordinate phrase with RC-*to* is comitative PP. The unacceptability of the sentences in (30) referred in Asada (2014) can be attributed to the incompatibility between the elements that are linked by the copula verb *be*. (Note that in predicational and specificational copula sentences, the copula functions to associate the subject with the complement that refers to the property of the subject or specifies it).[4]

(30)

*[Taroo *to* Ziroo *to* Hanako]-wa [$_{PP}$ satuzinhan *to* sono itimi-***to***] datta
Taroo CONJ Ziroo CONJ Hanako-TOP murderer CONJ its clan-**RC-*to*** COP-past

The parallelism between RC-*to* and the focus particle *dake* is just a coincidence. Postpositional analysis of RC-*to* better explains the data observed above, considering that RC-*to* can not occur in any of the three genuine copula clauses.[5]

(31) Classification: the sentences of the form "*A wa B da*"

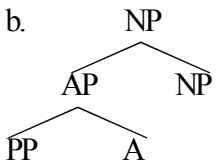
Types	Forms	Examples
Genuine Copula clauses	*NP wa NP da.*	Predicational/ Specificational/ Equative copula clauses
Non-copula clauses; with the form "*A wa B da*"	*...wa NP da*	***Unagi-bun*:** "*Boku-wa unagi da*" (Lit.'I am an eel')
	...wa PP da.	**Semantically acceptable:** (28b) Simekiri-wa [PP getsuyoobi-***made***] da 'The deadline is ***BY*** Monday'
	**...wa PP da.*	**Semantically unacceptable:** (30)*[Taroo to Ziroo to Hanako]-wa [PP satuzinhanto sono itimi-***to***] datta 'T., Z., and H. were ***WITH*** a murderer and its clan'

3.2 Incompatibility of the postposition RC-*to* with GNC

It has been pointed out by Ochi (2004) that GNC does not apply to *ga*-marked PPs as in (32).

(32) a. [PP Yokohama eki kara] -ga/*-no totemo chikai kooen
Yokohama Station from -NOM/-GEN very close park
'the park that it is Yokohama Station that is very close from (it).'

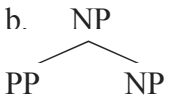
b.



(Ochi 2004:68)

Ochi (2004), following Kuroda (1988, 1992), distinguishes contextual and abstract Case marking. Under this assumption, *-no* (Genitive case marker) either is contextually inserted and attached to a prenominal NP or PP, or is realized as the abstract genitive Case. In (32), PP can not be marked by genitive marker *-no* since it is not immediately dominated by a projection of a noun. The PP modifier for a noun in (33) requires *-no*, as expected.

(33) a. [$_{PP}$ Yokohama eki kara]-no michi
Yokohama Station from-GEN road
'a road from Yokohama Station'

b.


c. *[$_{PP}$ Yokohama eki kara] michi
Yokohama Station from road

(Ochi 2004:68)

If RC-*to* is a postposition, which takes the coordinate phrase as its complement to form PP, then the non-occurrence of GNC is predicted.

(34) a. Taroo *to* Ziroo -ga/-no nonda wain
Taroo CONJ Ziroo -NOM/-GEN drank wine
'the wine that Taroo and Ziroo drank'
b. [$_{PP}$ Taroo *to* Ziroo-***to***] -ga/*?-no nonda wain
Taroo CONJ Ziroo -**RC-*to*** -NOM/-GEN drank wine

(Asada 2014:99)

3.3 Interim Conclusion

We have seen that the postpositional account better explains the restricted distribution of the coordinate phrase with RC-*to*; (i) the non-occurrence of RC-*to* in the copula clauses, and (ii) the incompatibility with GNC, both of which were pointed out in Asada (2014). In the next section, we examine the further consequences of this postpositional analysis of RC-*to*: We will see that the proposal is compatible with Fukui and Sakai's (2003) analysis of the non-constituent coordination.

4. RC-*to* in the non-constituent coordination

In Japanese, it has been observed that the coordinator -*to* can also be used in non-constituent coordination (Fukui and Sakai 2003) as illustrated in (35).

(35) Non-constituent coordination
Taroo-ga [Hanako-ni ringo 3-tu *to* Kumiko-ni banana 2-hon (***to***)]-o age-ta.
T.-NOM H.-DAT apple 3-CL CONJ K.-DAT banana 2-CL (**RC-*to***)-ACC gave
'Taro gave [three apples to Hanako] and [two bananas to Kumiko]'
(Fukui and Sakai 2003:345)

In (35), the direct and indirect objects (A-*o*/B-*ni*) are connected by the coordinator -*to,* which can be followed by the RC-*to*. Fukui and Sakai argues that in the non-constituent coordination, coordinated elements are nominal as in Japanese, case particles such as -*ga* and -*o* are only assigned to nominal constituents (Fukui and Sakai 2003:346). Along with case particles, postposition is also attached only to nominal elements. In (36), α and β are coordinated to form the coordinate phrase γ, which can be followed by the postposition, RC-*to*.

(36) Taroo-ga [[$_{\gamma}$[$_{\alpha}$Hanako-ni ringo 3-tu] *to* [$_{\beta}$Kumiko-ni banana 2-hon]]***to***]-o age-ta.
CONJ **RC-*to***

Since postpositional RC-*to* can attach to γ, it has to be some sort of nominal constituent, which is compatible with Fukui and Sakai's (2003) analysis.

5. Conclusion

5.1 Concluding remarks

I argued that RC-*to* is neither an additive nor restrictive focus particle, unlike the correlative and repetitive coordinators in other languages with the following evidence:

(i) RC-*to* does not impose obligatory distributive (multiple event) reading.
(ii) RC-*to* lacks LF-intervention effects, which is present with *dake.*
(iii) RC-*to* can not occur in the specificational copula clauses, though *dake* can.

I further claimed that RC-*to* is the comitative postposition -*to*, not the duplicated form of the coordinator -*to*. The postpositional account for the RC-*to* better explains the restrictions on the distribution of the RC-*to* pointed out in Asada

(2014).[6]

5.2 Further issues

Some of the remaining issues are followings:

(i) Why the interpretation of coordinate phrase remains the same, with or without RC-*to* when they are accompanied with case particles (e.g. subject, object positions)?

(ii) What makes it impossible for RC-*to* to appear after the other coordinators such as *ya* and *ni*? (Kuno 1973)

(iii) Why is RC-*to* different from the RCs in other languages in that the former lacks the distributive (multiple event) reading?

However, these issues are beyond the scope of this paper. Further exploration of these issues must be relegated to future work.

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Notes

[1]Note that truthfunctionally, (4b) is identical to the distributively interpreted coordinate phrase in (4a) without *both*.

[2] Asada (2014) also pointet out that the RC-*to* is incompatible with focus particles *sae* ‘even’ and *mo* ‘also’, which can not co-occur with *dake* ‘only’.

(i) Taroo-wa (ringo nominarazu) [mikan *to* banana (***to***)] sae/mo tabeta
Taroo-TOP (apple not only) oranges CONJ banana (**RC-*to***) even/also ate
'Taroo ate (not only apples but) even/also oranges and bananas'
(Asada 2014:100)

However, as illustrated below, the expression will be more acceptable when the coordinate phrase is followed by a case particle.

(ii) Taroo-wa (ringo nominarazu) [mikan to banana to]-o sae/mo tabeta
T.-TOP (apple not only) oranges CONJ banana RC-to-ACC even/also ate
'Taroo ate (not only apples but) even/also oranges and bananas'

In this article, I will not deal with this issue in detail, since the argument that RC-*to* denotes the implicature of exhaustivity is nullified. Given (ii), I assume that incompatibility of the RC-*to* and the particles *sae* and *mo* stem from other factors.

[3] As Tomioka (2007, 2009) and others have argued, whether LF-intervention effects are purely syntactic phenomena is not uncontroversial. There is a possibility that quantificational expressions such as *dake* do not block covert LF-movement of *wh*-phrases in LF. However, the parallelism between *dake* and RC-*to* does no longer exist in either case. For the detailed discussions, see Kobayashi (forthcoming) and the references cited there.

[4] Note also that RC-to in the complement position of the copula is only possible in highly elliptical context, whose interpretation is largely pragmatic.

(i) Kon'ya-no teidan -wa [$_{PP}$ Taroo *to* Hanako ***to***] da.
tonight-GEN three-way conversation-TOP Taroo CONJ Hanako-**RC-*to*** COP
'(I'll have) three-way conversation tonight (together) with Taroo & Hanako'

[5] Furthermore, unacceptability of another example in Asada (2014) can also be attributed to the semantic incompatibility between the subject NP and the complement that contain RC-*to*, which is postposition. Sentences in (i) below were presented as evidence that RC-*to* function in a similar manner as *dake*. Asada (2014) states that (ib) become less acceptable since RC-*to* denotes exhaustivity as *dake* does, which contradicts with the adverbial clause "*though there are some*

others."

(i)[*]Watasi-no sukina kudamono-wa hokani mo ikutuka aru ga ringo to itigodake da
I-GEN favorite fruit-TOP other also some are but apple CONJ strawberry only COP
'My favorite fruits are only apples and strawberries, though there are some others'
(Asada 2014:102)

(ii) Watasi-no sukina kudamono-wa hokani mo ikutuka aru ga ringo *to* itigo ([??]***to***) da
CONJ (**RC-*to***)

I point out that the parallelism between (i) and (ii) is an illusion; these two sentences become less acceptable for different reasons. In (i), the sentence is not well formed for the semantic contradiction between *dake* 'only' and the adverbial clause "*though there are some others*." However, in (ii), the sentence is unacceptable whether the adverbial clause "*though there are some others*" is present or not. Revised one without the adverbial clause illustrated in (iii) below is structurally identical to the predicational copula sentences.

(iii)[*][Watasi-no sukina kudamono]-wa [$_{PP}$ ringo *to* itigo ***to***] da
I-GEN favorite fruit-TOP apple CONJ strawberry **RC-*to*** COP

[6] Yuko Asada (personal communication) suggested that RC-*to* may possibly be a postposition, which is focus related. She mentioned that postpositions such as -*made* 'until/even' in Japanese functions both as a postposition and a focus particle. If that is the case, it enables us to take a fresh look at the situation. However, further investigations and empirical evidence are needed.

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