

Splitting a coordination with “with”

Yuta Tatsumi & Yoshiki Fujiwara*

Abstract. By investigating data on Japanese particle *to* ‘with/and’, this paper provides a unified analysis of three types of construction containing the particle *to*. We argue that a single *to* particle coordinating two elements is a conjunction particle (single *to* construction), while *to* selecting the coordination phrase (multiple *to* construction) and *to* adjoined to a single element (split *to* construction) are comitative postpositions. Under the proposal, the split *to* construction and the multiple *to* construction share the same underlying structure containing the single *to* construction. We also show that Russian coordinative and discontinuous comitatives are derived in a similar way to Japanese, following Ionin and Matushansky (2002). Our proposal suggests that a discontinuous comitative phrase and its associate universally form a constituent in a base structure.

Keywords. comitatives; coordination; conjunction; Japanese; Russian

1. Introduction. In Japanese, a comitative particle is homophonous with a conjunction particle. The particle *to* ‘with/and’ is used as a comitative particle or a conjunction particle. In this paper, we focus on the following three types of *to*-construction in Japanese.

(1) **Single *to* construction**

[*Haru to Aki*]-*ga* *Natsu-o* *home-ta*.
 Haru TO Aki-NOM *Natsu*-ACC praise-PAST
 ‘Haru and Aki praised Natsu.’

(2) **Split *to* construction**

Haru-ga *Natsu-o* [*Aki to*] *home-ta*.
 Haru-NOM *Natsu*-ACC Aki TO praise-PAST
 ‘Haru and Aki praised Natsu.’

(3) **Multiple *to* construction**

[*Haru to Aki to*]-*ga* *Natsu-o* *home-ta*.
 Haru TO Aki TO-NOM *Natsu*-ACC praise-PAST
 ‘Haru and Aki praised Natsu.’

In (1), *to* forms a coordination phrase consisting of two proper names. We refer to this type of coordination phrase as the single *to* construction. Two conjuncts in (1) can be separated from each other, as shown in (2). In this case, one conjunct is marked by a case marker, and the other combines with *to*. We refer to this type of example as the split *to* construction. As shown in (3), it is possible to repeat the particle *to*, forming a single constituent. The coordination phrase in (3) is marked by the nominative case *-ga*. According to Stassen (2000), similar constructions are also observed in Burmese, Tibetan, Newari, and Canela-Krahô. We refer to this type of construction as the multiple *to* construction.

* We would like to thank to the audience at the LSA 2018 Annual Meeting. Authors: Yuta Tatsumi, University of Connecticut (yuta.tatsumi@uconn.edu) & Yoshiki Fujiwara, University of Connecticut (yoshiki.fujiwara@uconn.edu).

2. Previous analyses. It has been argued that the single *to* construction is derivationally related to the split *to* construction or the multiple *to* construction. Kuno (1973) claims that the single *to* construction is derived from the split *to* construction by movement of the *to* phrase to the front of its associate. A schematic derivation of Kuno’s analysis is illustrated in (4).

(4) **Split *to*:** B-case ... [PP A *to*] ... → **Single *to*:** [PP A *to*]₁ B-case ... *t*₁ ...

In (4), *to* is introduced into the structure as a comitative postposition, but not a conjunction particle (see also Kasai and Takahashi 2001).

In contrast, Nishigauchi (1992) proposes that the split *to* construction is derived from the single *to* construction by movement of the *to* phrase, as shown in (5).

(5) **Single *to*:** ... [&P A *to* B] ... → **Split *to*:** [A *to*]₁ ... [&P *t*₁ B] ...

In (5), two elements form a coordination phrase, and then the first conjunct moves out of the coordination phrase in tandem with *to*. When the remnant coordination phrase containing the second conjunct moves over the moved *to* phrase, we obtain the word order given in (2). According to Nishigauchi’s (1992) analysis, *to* in the split *to* construction is not a comitative postposition, unlike Kuno’s (1973) analysis. Rather, it forms a coordination phrase taking two constituents.

As for the single *to* construction and the multiple *to* construction, Hiraiwa (2014) proposes that the multiple *to* construction is constructed based on the single *to* construction. Following Chino (2013), he assumes that logical connectives are head-initial in Japanese. In the single *to* construction, the first conjunct occupies the specifier of a projection headed by the conjunction particle, while the second conjunct appears in the complement of the particle. In the multiple *to* construction, another conjunction particle takes the single *to* construction as its complement. The complement *to* phrase undergoes head-to-spec movement, as shown in (6).

(6) **Single *to*:** [&P₁ A [&’₁ *to*₁ B]] → **Multiple *to*:** [&P₂ [&P₁ A [&’₁ *to*₁ B]] [&’₂ *to*₂ *t*]]

There are three previous approaches to *to* constructions in Japanese in this section. On the one hand, Kuno (1973) and Nishigauchi (1992) argue that the single *to* construction and the split *to* construction contains the same *to* particle. On the other hand, Hiraiwa (2014) assumes that the single *to* construction and the multiple *to* construction use the same conjunction particle.

3. Proposal. In contrast to the previous approaches to the *to* constructions, we offer a unified analysis of the three *to* constructions in (1-3). We propose that the split *to* construction and the multiple *to* construction are derived from the same underlying structure. Importantly, the shared underlying structure contains the single *to* construction. Moreover, we argue that *to* in the single *to* construction is a conjunction particle, whereas *to* in the split *to* construction and the rightmost *to* in the multiple *to* construction are comitative postpositions.

Our proposal is illustrated in (7) and (8). Here, & stands for a conjunction particle, and we represent a comitative particle as WITH.

(7) ... [&P A & B]-case ... V (Single *to* construction; (1))

(8) a. ... [PP [&P A & B] WITH] ... V
 b. A₁-case ... [PP [&P *t*₁ & B] WITH] ... V (Split *to* construction; (2))
 c. [PP [&P A & B] WITH]₁-case ... *t*₁ ... V (Multiple *to* construction; (3))

(7) is a representation for the single *to* construction. Here, *to* is a conjunction particle and it projects its own coordination phrase. Following Hiraiwa (2014), we assume that the conjunction particle is head initial in Japanese.

(8a) is the underlying representation for the split *to* construction and the multiple *to* construction. In (8a), the comitative postposition takes the coordination phrase in (7) as its complement. (8b) is a derivation of the split *to* construction. Here, the comitative phrase is base-generated in a theta-position, and only the first conjunct moves out of the coordination phrase to a case-position, while leaving the second element in-situ. In the remnant coordination phrase, the conjunction particle is not phonologically realized, as represented in (8b). Japanese makes use of several conjunction particles, depending on the item preceding a conjunction particle. For example, when two verb phrases are coordinated, *te* is used as a conjunction particle, but not *to*. Based on this property of Japanese conjunction particle, we assume that the conjunction particle *to* becomes phonologically null when it follows unpronounced elements such as a deleted copy of a moved constituent. (8c) is a derivation of the multiple *to* construction. Here, the comitative phrase is base-generated in a theta-position just like (8b), but the whole comitative phrase moves to a case-position, instead of the first conjunct. Note that Japanese postpositional phrases can be Case-marked, as can be seen in (9).

- (9) [rokuzyus-sai kara](-ga) zinsei-wa motto omosiroku naru.
 sixty-age from-NOM life-TOP more interesting become
 ‘Life becomes more interesting from sixty.’

4. Support. In this section, we provide evidence for our proposal, by comparing it with the previous analyses explained in section 2.

4.1. NATURE OF *TO*. We first offer support for the assumption that *to* in the split *to* construction and the rightmost *to* particle in the multiple *to* construction are comitative postpositions. Among the three *to* constructions in question, only the single *to* construction does not block the association between an NP and a numeral quantifier, as shown in (10a). In contrast, the association is blocked in the multiple *to* construction, as in (10b).

- (10) a. [*Gakusei to sensei*]-ga san-nin ki-ta. [single *to* construction]
 student and teacher-NOM 3-CL come-PAST
 ‘Three students and three teachers came.’
 ‘Three people came; they are students and teachers.’
- b. *[*Gakusei to sensei to*]-ga san-nin ki-ta. [multiple *to* construction]
 student and teacher with-NOM 3-CL come-PAST
 Int. ‘Three students and three teachers came.’
 Int. ‘Three people came; they are students and teachers.’

In (10a), the numeral quantifier can be associated with the coordination phrase, meaning that three people came and they are students and teachers. Of importance here is that (10a) can receive an interpretation in which ‘three’ is associated with ‘teachers’. Both readings are impossible in (10b), and the sentence is unacceptable. The unacceptability of (10b) arises because the association between *san-nin* ‘three-CL’ and the nouns inside the *to* phrase is blocked.

Under Hiraiwa’s (2014) analysis, it is not clear how to capture the unacceptability of (10b). (10a) shows that phrases headed by the conjunction particle do not block the association between nouns and numeral quantifiers. He analyzes both two *tos* in (10b) as conjunction particles, and there should be no difference between (10a) and (10b), regarding the association between nouns

and numeral quantifiers, contrary to the fact. It may be worth noting here that three-member coordination allows the association, as shown in (11).

- (11) [_{&P} *Gakusei to sensei to zimuin*]-ga *san-nin ki-ta*. [three-member coordination]
 student and teacher and office.worker-NOM 3-CL come-PAST
 ‘Three students, three teachers, and three office workers came.’
 ‘Three people came; they are a student, a teacher, and an office worker.’

Unlike the multiple *to* construction, the three-member coordination phrase in (11) lacks the rightmost *to* particle directly followed by the nominative case marker. If two *tos* in the multiple *to* construction were the same as *tos* in the three-member coordination, the contrast between (10b) and (11) is unexpected.

In contrast to Hiraiwa’s (2014) analysis, the present analysis can capture the contrast in (10). We argue that the association between an NP and a numeral quantifier is blocked in (10b) because the rightmost *to* in (10b) is a comitative postposition. Miyagawa (1989) argues that a numeral quantifier can be associated with a case-marked NP as in (12a), but not with an NP in a postpositional phrase, as in (12b).

- (12) a. [*Sensei-ga*] *san-nin ki-ta*.
 teachers-NOM 3-CL come-PAST
 ‘Three teachers came.’ (Miyagawa 1989: 19)
 b. **Gakuseitai-wa* [_{PP} *kuruma-de*] *ni-dai ki-ta*.
 students-TOP car-in 2-CL come-PAST
 ‘Students came in two cars.’ (Miyagawa 1989: 31)

Under the present analysis, (10b) has the following structure.

- (13) * [_{PP} [_{&P} *Gakusei to sensei*] *to*]-ga *san-nin ki-ta*. = (10b)
 student and teacher with-NOM 3-CL come-PAST

In (13), the comitative postposition *to* takes a coordination phrase as its complement. The numeral quantifier in (10b) cannot be associated with the nouns in the coordination phrase or the coordination phrase itself because they occur in the postpositional phrase headed by the comitative postposition. On the other hand, (11) is acceptable because the three-member coordination phrase does not occur with a comitative postposition.

Moreover, numeral quantifiers provide evidence that *to* in the split *to* construction is also a comitative postposition. As shown in (14), the association between ‘three’ and ‘teachers’ cannot be achieved in the split *to* construction.

- (14) **John-ga* [_{PP} *sensei to*] *san-nin ki-ta*. [split *to* construction]
 John-NOM teacher with 3-CL come-PAST
 ‘John came with three teachers.’

According to our analysis, (14) is predicted to be unacceptable like (12b) because the comitative postpositional phrase in (14) blocks the association of numeral quantifiers.

Further support for the assumption that there are two types of *to* in Japanese comes from the selectional property of *to*. As shown in (15), *to* in the single *to* construction is different from *to* in the split *to* construction and the rightmost *to* in the multiple *to* construction, with respect to the selectional property.

- (15) a. *Haru-ga* [[_{PP} *Aki-kara*] *to* [_{PP} *Natsu-kara*]] *tegami-o moratta*.
 Haru-NOM Aki-from and Natsu-from letter-ACC received
 ‘Haru received letters from Aki and Natsu.’ [single *to* construction]
- b. **Haru-ga* [[_{PP} *Aki-kara*] *to* [_{PP} *Natsu-kara*]] *to tegami-o moratta*.
 Haru-NOM Aki-from and Natsu-from with letter-ACC received
 ‘Haru received letters from Aki and Natsu.’ [multiple *to* construction]
- c. **Haru-ga Natsu-kara tegami-o* [[_{PP} *Aki-kara*]-*to*] *moratta*.
 Haru-NOM Natsu-from letter-ACC Aki-from-with received
 ‘Haru received letters from Aki and Natsu.’ [split *to* construction]

In the single *to* construction, two PPs can be coordinated as in (15a). However, coordination of two PPs is ungrammatical in the multiple *to* constructions, as in (15b). Similarly, *to* cannot combine with a PP in the split *to* construction as in (15c). We suggest that the unacceptability of (15b,c) arises because the comitative postpositions in these examples fail to select an NP as its complement. We assume that conjunction particles do not interfere with selection properties of coordinated items.

The data above show that the split *to* construction and the multiple *to* construction are comitative constructions in the sense that they contain a comitative postposition. On the other hand, the single *to* construction is a coordination phrase headed by a conjunction particle.

4.2. DISTRIBUTIVITY. It is well-known that comitative constructions disallow distributive readings (McNally 1993). For example, the comitative preposition *with* in English cannot express distributive readings, as in (16), whereas the conjunction particle *and* can, as in (17).

- (16) a. *John lives separately with Bill.
 b. John lives together with Bill. (Tang 2011:141)
- (17) a. John and Bill live separately.
 b. John and Bill live together. (Tang 2011:141)

The multiple *to* construction and the split *to* construction cannot have distributive readings. (18a,b) is true only when there is a single event of coming. On the other hand, the single *to* construction in (18c) allows the multiple-event reading in which Haru and Aki came separately.

- (18) a. *Haru to Aki to-ga ki-ta*. [multiple *to* construction]
 Haru and Aki with-NOM come-PAST
 ‘Haru and Aki came together.’
 *‘Haru and Aki came separately.’
- b. *Haru-ga Aki to ki-ta*. [split *to* construction]
 Haru-NOM Aki with come-PAST
 ‘Haru and Aki came together.’
 *‘Haru and Aki came separately.’
- c. *Haru to Aki-ga ki-ta*. [single *to* construction]
 Haru and Aki-NOM come-PAST
 ‘Haru and Aki came together.’
 ‘Haru and Aki came separately.’

If the lack of the distributive reading is a property of comitative phrases, the contrast in (18) shows that the split *to* construction and the multiple *to* construction contain a comitative phrase, whereas the single *to* construction does not.

The lack of distributive readings in multiple *to* constructions and split *to* constructions is further confirmed by using a counting adverbial. In (19), the counting adverbial *go-kai* ‘five times’ is used. Only the single *to* construction in (19a) allows a reading in which Haru and Aki praised Natsu five times separately. Under this interpretation, there are ten praising events in total. The fact that the multiple *to* construction in (19b) and the split *to* construction in (19c) disallow the ten-event reading can be seen as evidence that they are comitative constructions.

- (19) a. [*Haru to Aki*]-*ga Natsu-o go-kai home-ta.* [single *to* construction]
 Haru and Aki-NOM Natsu-ACC five-time praise-PAST
 ‘OKHaru & Aki praised Natsu five times.’ (5 events)
 ‘OKHaru & Aki praised Natsu five times independently.’ (10 events)
- b. [*Haru to Aki*] *to-ga Natsu-o go-kai home-ta.* [multiple *to* construction]
 Haru and Aki with-NOM Natsu-ACC five-time praise-PAST
 ‘OKHaru & Aki praised Natsu five times.’ (5 events)
 ‘*Haru & Aki praised Natsu five times independently.’ (10 events)
- c. *Aki-ga Natsu-o [Haru to] go-kai home-ta.* [split *to* construction]
 Aki-NOM Natsu-ACC Haru with five-time praise-PAST
 ‘OKHaru & Aki praised Natsu five times.’ (5 events)
 ‘*Haru & Aki praised Natsu five times independently.’ (10 events)

4.3. RECIPROCALs. There is another piece of evidence for the current analysis, in connection to reciprocal expressions. As observed by Frajzyngier (1999), Dimitriadis (2008) and Siloni (2012), when reciprocal constructions contain a discontinuous comitative phrase as in (20a), reciprocity must hold between the set denoted by a subject noun phrase and the set denoted by a comitative phrase. On the other hand, in reciprocal constructions containing a coordination phrase like (20b), a reciprocal relation can be established within the set denoted by each conjunct in the coordination phrase.

- (20) a. *ha-yeladim hitnašku im ha-yeladot.* [Hebrew]
 the-boys kissed_{REC} with the-girls
 ‘The boys kissed the girls, and the girls kissed the boys.’
 *‘The boys kissed each other, and the girls kissed each other.’
- b. *ha-yeladim ve-ha-yeladot hitnašku.*
 the-boys and-the-girls kissed_{REC}
 ‘The boys kissed the girls, and the girls kissed the boys.’
 ‘The boys kissed each other, and the girls kissed each other.’ (Siloni 2012: 297)

As reported by Tatsumi (2017), a similar contrast holds between the split *to* construction and the single *to* construction, which we analyze as a discontinuous comitative construction and a coordination construction, respectively. In Japanese, when a verb is compounded with the reciprocal verb *aw*, which originally means ‘meet’, ‘fit’ or ‘match’, the resulting compound verb bears a reciprocal interpretation. In a split *to* construction containing a reciprocal verbal compound, the reciprocal relation holds only between the set denoted by a subject phase and the set denoted by an NP marked by *to* like (20a), as shown in (21a). On the other hand, when a single *to* construction occurs with a reciprocal verbal compound, the resulting sentence becomes ambiguous like (20b), as shown in (21b). In addition to the interpretation where a reciprocal abusing event holds between teachers and students, (21b) can receive another interpretation in which teachers abused teachers and students abused students.

- (21) a. *Kyoosi-ga [gakusei to] nonosiri-at-ta.*
 teacher-NOM student with abuse-REC-PAST
 OK ‘Teachers abused students, and students abused teachers.’
 * ‘Teachers abused each other, and students abused each other.’
- b. [*Kyoosi to gakusei*]-*ga nonosiri-at-ta.*
 teacher and student-NOM abuse-REC-PAST
 ‘Teachers abused students, and students abused teachers.’
 ‘Teachers abused each other, and students abused each other.’ (Tatsumi 2017: 540)

Note that multiple *to* constructions behave like split *to* constructions in this respect, as shown in (22). Like (21a), (22) is true only when teachers bears a reciprocal relationship with students.

- (22) [*Kyoosi to gakusei to*]-*ga nonosiri-at-ta.*
 teacher and student with-nom abuse-REC-PAST
 OK ‘Teachers abused students, and students abused teachers.’
 * ‘Teachers abused each other, and students abused each other.’

Remember that reciprocal constructions with a discontinuous comitative phrase unambiguously receive an interpretation in which a reciprocal relation is established between a subject phrase and a comitative phrase. The unambiguity of (21a) and (22) can be seen as support for our proposal that the split *to* construction and the multiple *to* construction contain a comitative phrase. In other words, the comitative postposition *to* makes (21a) and (22) unambiguous.

We have seen that the multiple and split *to* constructions have a comitative postposition and they behave different from the single *to* constructions. This is unexpected under the previous approaches illustrated in Section 2. Kuno (1973) and Nishigauchi (1993) attempt to unify the single *to* constructions and the split *to* constructions. Hiraiwa (2014) argues that the multiple *to* constructions is constructed based on the single *to* phrase, analyzing *to* in the multiple *to* construction and the single *to* construction as a conjunction particle.

4.4. DERIVATION. In this subsection, we show that the multiple *to* constructions and the split *to* constructions are derived from the same underlying structure by syntactic movement. Although the split *to* phrases in the examples above are associated with the subject phrase, there is a case where a split *to* phrase is associated with an object phrase, as in (23a). This type of association is possible only with verbs that can select a multiple *to* phrase as its object phrase. As shown in (23b), *kuraberu* ‘compare’ can take a multiple *to* phrase as its object phrase.

- (23) a. *Haru-ga Natsu-o [Aki to] kurabe-ta.*
 Haru-NOM Natsu-ACC Aki with praise-PAST
 ‘Haru compared Natsu to Aki.’
- b. *Haru-ga [Natsu to Aki to]-o kurabe-ta.*
 Haru-NOM Natsu and Aki with-ACC compare-PAST
 ‘Haru compared Natsu to Aki.’

As illustrated in (24a), *homeru* ‘praise’ cannot select a multiple *to* phrase as its object phrase. When the same verb is used as a matrix predicate, the split *to* phrase cannot be associated with the object, as in (24b). The split *to* phrase in (24b) is associated only with the subject phrase.

- (24) a. **Haru-ga [Natsu to Aki to]-o home-ta.*
 Haru-NOM Natsu and Aki with-ACC praise-PAST
 ‘Haru praised Natsu and Aki.’

- b. *Haru-ga Natsu-o [Aki to] home-ta.* (=2)
 Haru-NOM Natsu-ACC Aki with praise-PAST
 ‘Haru and Aki praised Natsu.’
 *‘Haru praised Natsu and Aki.’

The single *to* constructions do not exhibit this selectional restriction, as shown in (25).

- (25) a. *Haru-ga [Natsu to Aki]-o kurabe-ta.*
 Haru-NOM Natsu and Aki-ACC compare-PAST
 ‘Haru compared Natsu to Aki.’
 b. *Haru-ga [Natsu to Aki]-o home-ta.*
 Haru-NOM Natsu and Aki-ACC praise-PAST
 ‘Haru praised Natsu and Aki.’

The data above show that the availability of the object association reading in the split *to* constructions correlates with whether verbs can co-occur with a multiple *to* construction. This correlation indicates that they share the same underlying structure.

We argue that the multiple *to* constructions and the split *to* constructions are related to each other via syntactic movement. Although the multiple *to* phrase can appear in the embedded subject position or the matrix subject position, as in (26a) and (26b), the split *to* phrase in the embedded clause cannot be associated with the matrix subject, as in (26c).

- (26) a. *Fuyu-ga [[Haru to Aki to]-ga Natsu-o hometa] to iihatta.*
 Fuyu-NOM Haru and Aki with-NOM Natsu-ACC praised C insisted
 ‘Fuyu insisted that Haru and Aki praised Natsu.’
 b. *[Fuyu to Aki to]-ga [Haru-ga Natsu-o hometa] to iihatta.*
 Fuyu and Aki with-NOM Haru-NOM Natsu-ACC praised C insisted
 ‘Fuyu and Aki insisted that Haru praised Natsu.’
 c. *Fuyu-ga [Haru-ga Natsu-o [Aki to] hometa] to iihatta.*
 Fuyu-NOM Haru-NOM Natsu-ACC Aki with praised C insisted
 ‘Fuyu insisted that Haru and Aki praised Natsu.’
 *‘Fuyu and Aki insisted that Haru praised Natsu.’

Under our proposal, an associate of a split *to* phrase moves out of a coordination phrase to a case-position. We assume that the relevant movement is an instance of A-movement. It is widely assumed that A-movement is clause-bounded, and it will be predicted that the association of the split *to* phrase also exhibits the clause-boundedness. The impossibility of the long-distance association of the split *to* phrase in (26c) shows that this prediction is borne out.

Japanese is a radical pro-drop language and one might consider that the data discussed in this paper can be accounted for by assuming the structure (27), in which a small *pro* appears in the complement coordination phrase.

- (27) A₁ ... [&P *pro*₁ & B]-to ...

The impossibility of the long-distance association in (26c) shows that split *to* phrases do not have the structure (27). Under the *pro* analysis represented in (27), it is not clear why the long-distance association of the split *to* phrase in (26c) is impossible. Moreover, the *pro* analysis cannot capture the fact that a split *to* phrase can be associated with the object phrase of ‘compare’, but not of ‘praise’, as in (23-24).

5. Implication. We have seen in Section 4.4 that associations of the split *to* phrase are not free. For example, it associates with an object phrase in some cases, but not in other cases (cf. 23-24). Under our proposal, associations of the split comitative phrase follow from what it can co-occur with as a constituent. The idea here is that associations of the discontinuous comitative phrase are compositionally determined. We would like to suggest that this compositional way of analyzing the discontinuous comitative construction is universal. Although it is beyond the scope of this paper to give complete cross-linguistic studies on comitative constructions, we would like to show that Russian comitatives also make use of the compositional association of discontinuous comitative phrases.

Russian has two types of comitative construction as in (28) and (29). The verb in (28) exhibits plural agreement and the comitative phrase cannot be split from its associate. On the other hand, the verb in (29) shows singular agreement and the comitative phrase can be discontinuous. We call the former the coordinative comitative construction and the latter the discontinuous comitative construction.

(28) Coordinative comitatives in Russian (Larson 2014: 15)

- a. *Maša [s Dašej] xodjat v školu.*
 Masha with Dasha go.PL to school
 ‘Masha goes to school with Dasha.’
- b. **Maša xodjat v školu [s Dašej].*
 Masha go.PL to school with Dasha
 ‘Masha goes to school with Dasha.’

(29) Discontinuous comitatives in Russian (Larson 2014: 15)

- a. *Maša [s Dašej] xodit v školu.*
 Masha with Dasha go.SG to school
 ‘Masha goes to school with Dasha.’
- b. *Maša xodit v školu [s Dašej].*
 Masha go.SG to school with Dasha
 ‘Masha goes to school with Dasha.’

It has been discussed in the literature whether the discontinuous phrase is base-generated as an adjunction to a VP or its associate (Ionin and Matushansky 2002, Larson 2014, McNally 1993, Vassilieva 2001 a.o). Ionin and Matushansky (2002) argue against the VP-adjunction approach because discontinuous comitative phrases can be associated not only with subjects but also with direct objects, indirect objects, or possessives, as in (30).

- (30) a. *Ja priglasila Ceciliju s Annabelloj.*
 I invited.SG Cecilia with Annabella
 ‘I invited Cecilia and Annabella.’
- b. *Korol' otdal korolevstvo princu s Zoluškoj.*
 king gave kingdom prince with Cinderella
 ‘The king gave the kingdom to the prince and Cinderella.’
- c. *?Dašin s Mašej portret nam očēn' ponravilsja.*
 Dasha.POSS with Masha.INST portrait us very appealed
 ‘We liked Dasha and Masha’s portrait a lot.’ (Ionin & Matushansky 2002: 268)

If discontinuous comitative phrases are to be adjoined to a VP, it would be unclear how to determine whether a VP-adjoined comitative associates with subjects, direct objects, indirect objects, or possessives.

Instead, Ionin and Matushansky (2002) and Larson (2014) claim that the coordinate comitative construction and the discontinuous comitative construction share the same underlying structure. (31) illustrates Ionin and Matushansky's (2002) analysis on the coordinate comitative construction in (28) and the discontinuous comitative construction in (29).

- (31) a. $[_{VP} [Maša [s Dašej]] [_v \text{'go to school'}]]$
 b. $[_{TP} [Maša [s Dašej]]_1 [_{VP} t_1 [_v \text{'go.PL to school'}]]]$ = (28)
 c. $[_{TP} [Maša]_1 [_{VP} [t_1 [s Dašej]] [_v \text{'go.SG to school'}]]]$ = (29)

(31a) is the underlying structure for (28) and (29). In (31a), the coordinated DPs by *s* 'with' is base-generated in a theta-position. In (31b), the whole coordination phrase moves from Spec, vP to Spec, TP and the coordinative comitative construction is derived. In (31c), on the other hand, the discontinuous comitative construction is derived via movement of the first DP *Maša*.

Notice that their proposal for Russian comitative constructions are similar to our proposal in Section 3. There are two types of comitative constructions in both Russian and Japanese, and they differ in what has moved from a theta-position: one involves movement of the whole element base-generated in the theta-position, whereas the other is derived by moving only the first element. Given this resemblance in analyses, it is expected that there are similarities between Japanese and Russian comitatives. This expectation is borne out. As noted by Vassilieva (2001), Russian split comitatives cannot appear with a verb that disallows a collective reading like *know*, as in (32a), while coordinative comitatives can, as in (32b).

- (32) a. **Pelagija s Mitrofaniem znala, kto ubijca.*
 Pelagia with Mitrofaniij knew.SG who murderer
 b. *Pelagija s Mitrofaniem znali, kto ubijca.*
 Pelagia with Mitrofaniij knew.PL who murderer
 'Pelagia and Mitrofaniij knew who the murderer is.' (Ionin & Matushansky 2002: 258)

Likewise, Japanese split *to* construction does not allow the verb *know* as its predicate, whereas the multiple *to* construction does, as shown below:

- (33) a. **Mary-ga [dare-ga hannin ka]-o [John to] sitteiru.*
 Mary-NOM who-NOM murderer Q-ACC John with know
 b. ?*[[John to Mary] to]-ga [dare-ga hannin ka]-o sitteiru.*
 John and Mary with-NOM who-NOM murderer Q-ACC know
 'John and Mary know who the murderer is.'

The similarity between Russian comitatives and Japanese *to* constructions is expected under Ionin and Matushansky's derivational analysis of Russian comitatives and our analysis of Japanese *to* constructions. According to Ionin and Matushansky (2002), the discontinuous comitative phrase in Russian first forms a constituent with its associate. Under our analysis, the split *to* construction and the multiple *to* construction are related to each other, like Russian comitative constructions. We take the similarity between (32) and (33) as support for the analysis in which a discontinuous comitative phrase and its associate universally form a constituent in a base structure.

6. Summary. This paper has provided the unified analysis of three types of construction containing the particle *to* in Japanese. We have proposed (i) that *to* in the single *to* construction is a conjunction particle, whereas *to* in the split *to* construction and the rightmost *to* in the multiple *to* construction are comitative postpositions, and (ii) that the comitative postposition *to* takes a coordination phrase headed by the conjunction particle *to* as its complement. We have also argued that the split *to* construction and the multiple *to* construction share the base structure containing the single *to* construction. Under our proposal, the split *to* construction is derived once it syntactically relates with its associate as a constituent. The proposal implies that a comitative phrase and its associate are universally a constituent in an underlying structure. We have seen that this compositional analysis of comitative phrases is also taken in Russian comitative constructions (Ionin and Matushansky 2002, cf. Larson 2014).

References

- Chino, Yukiko. 2013. *The syntax of coordination in Japanese*. Tokyo: Meiji Gakuin University M.A. dissertation.
- Dimitriadis, Alexis. 2008. Irreducible symmetry in reciprocal constructions. In Ekkehard König & Volker Gast (eds.), *Reciprocals and reflexives: Cross-linguistic and theoretical explorations*. 375–410. Berlin: De Gruyter.
- Frajzyngier, Zygmunt. 1999. Coding the reciprocal function: Two solutions. In Zygmunt Frajzyngier & Traci S. Curl (eds.), *Reciprocals: Forms and function (Typological studies in language 41)*. 179–194. Amsterdam: John Benjamins.
- Hiraiwa, Ken. 2014. Constraining doubling. In Kuniya Nasukawa, and Henk van Riemsdijk (eds.), 225–254. *Identity relations in grammar*. Berlin: de Gruyter.
- Ionin, Tania and Ora Matushansky. 2002. DPs with a twist: A unified analysis of Russian comitatives. In Wayles Browne, Ji-Yung Kim, Barbara Partee, & Robert A. Rothstein (eds.), *Formal approaches to Slavic linguistics: The Amherst meeting*. 255–274. Ann Arbor, MI: Michigan Slavic Publications.
- Kasai, Hironobu and Shoichi Takahashi. 2001. Coordination in Japanese. In Maria Cristina Cuervo, Daniel Harbour, Ken Hiraiwa & Shinichiro Ishihara (eds.), *Formal Approaches to Japanese Linguistics: Proceedings of FAJL 3*. 19–32. Cambridge, MA: MITWPL.
- Kuno, Susumu. 1973. *The structure of the Japanese language*. Cambridge, MA: MIT Press.
- Larson, Bradley. 2014. Russian comitatives and the ambiguity of adjunction. *Journal of Slavic Linguistics* 22(1). 11–50. <https://doi.org/10.1353/jsl.2014.0004>.
- McNally, Louise. 1993. Comitative coordination: A case study in group formation. *Natural language and linguistic theory* 11(2). 347–79. <https://doi.org/10.1007/BF00992917>.
- Miyagawa, Shigeru. 1989. *Syntax and semantics 22: Structure and case marking in Japanese*. San Diego: Academic Press.
- Nishigauchi, Taisuke. 1992. Syntax of reciprocals in Japanese. *Journal of East Asian Linguistics* 1. 157–196. <https://doi.org/10.1007/BF00130235>.
- Siloni, Tal. 2012. Reciprocal verbs and symmetry. *Natural Language & Linguistic Theory* 30. 261–320. <https://doi.org/10.1007/s11049-011-9144-2>.
- Stassen, Leon. 2000. *And*-languages and *with*-languages. *Linguistic Typology* 4. 1–54. <https://doi.org/10.1515/lity.2000.4.1.1>.
- Tang, Chih-Chen Jane. 2011. Comitative vs. Conjunctive constructions in Paiwan. *Language and Linguistics* 12(1). 141–170.

- Tatsumi, Yuta. 2017. Reciprocal verbal compounds and null reciprocals in Japanese. In Aaron Kaplan, Abby Kaplan, Miranda K. McCarvel, and Edward J. Rubin (eds.), *Proceedings of the 34th West Coast Conference on Formal Linguistics*. 536-543.
- Vassilieva, Masha. 2001. On the typology of Russian comitatives. In Steven Franks, Tracy Halloway-King, and Michael Yadroff (eds.), *Formal approaches to Slavic linguistics: The Bloomington meeting*. 327–344. Ann Arbor, MI: Michigan Slavic Publications.