

Reciprocal Verbal Compounds and Null Reciprocals in Japanese

Yuta Tatsumi

1. Introduction

This paper investigates the syntax of reciprocal verbal compounds in Japanese. I argue (i) that Japanese allows null reciprocals, in contrast to null reflexives, and (ii) that null nominal reciprocals play a crucial role in deriving reciprocity in Japanese reciprocal verbal compounds. As shown in (1), both nominal and verbal strategies are attested in Japanese.¹

- (1) a. [John-to Mary]-ga otagai-o home-ta.
John-and Mary-NOM REC-ACC praise-PAST
'John and Mary praised each other.' [Nominal Strategy]
- b. [John-to Mary]-ga home-at-ta.
John-and Mary-NOM praise-REC-PAST
'John and Mary praised each other.' [Verbal Strategy]

In (1a), a reciprocal interpretation is obtained by using a noun *otagai* as an object noun phrase. This shows that Japanese has the nominal strategy to express reciprocity. In (1b), the matrix verb is compounded with the reciprocal verb *-aw*, which originally means “meet”, “fit” or “match”; *-aw* here functions as a marker of reciprocity. Verbal compounding with *-aw* is a productive construction; both intransitive and transitive verbs can appear in the first position of reciprocal verbal compounds. This means that Japanese has developed the verbal strategy for expressing reciprocity as well.

2. Setting the stage: Japanese reciprocal verbal compounds

Since reciprocals express a symmetric relationship among members of a given set, it requires at least two individuals by its very nature. As shown in (2), Japanese reciprocal verbal compounds can realize their arguments in two different ways.

- (2) a. [John-to Mary]-ga kinoo home-at-ta.
John-and Mary-NOM yesterday praise-REC-PAST
'John and Mary praised each other yesterday.' [Regular Reciprocal Construction]
- b. John-ga kinoo Mary-to home-at-ta.
John-NOM yesterday Mary-with praise-REC-PAST
'John and Mary praised each other yesterday.' [Discontinuous Reciprocal Construction]

In (2a), the relevant participants are introduced into the sentence as a plural subject. In (2b), they are introduced with a discontinuous phrase (i.e. NP-*to*). Both examples express a symmetric relation between two distinct individuals. I refer to the former type of reciprocal verbal compounds as the regular reciprocal construction, and the latter as the discontinuous construction.

Although there is no overt object phrase in (2), an accusative object phrase can appear if the first verb in verbal compounds is a transitive verb, as shown in (3).

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¹ Abbreviation: REC = reciprocals

- (3) a. [John-to Mary]-ga Taro-o home-at-ta.
 John-and Mary-NOM Taro-ACC praise-REC-PAST
 ‘John and Mary praised Taro together.’
 b. John-ga Taro-o Mary-to home-at-ta.
 John-NOM Taro-ACC Mary-with praise-REC-PAST
 ‘John and Mary praised Taro together.’

It is worth noting here that reciprocal verbal compounds with overt object phrases receive a sociative interpretation as in (3). Similarly, when an intransitive verb is used as the first verb of a verbal compound, the resulting sentence receives only sociative interpretation, as can be seen in (4).

- (4) a. [John-to Mary]-ga naki-at-ta. b. John-ga Mary-to naki-at-ta.
 John-and Mary-NOM cry-REC-PAST John-NOM Mary-with cry-REC-PAST
 ‘John and Mary cried together.’ ‘John and Mary cried together.’

The data given above show that Japanese can make use of verb-verb compounds to express a reciprocal relationship. Kageyama (1982, 1993) argues that Japanese verb-verb compounds can be classified into two types: syntactic compounds and lexical compounds. Since a lexical compound is formed in the lexicon, syntax cannot have access to its internal structure. Based on this reasoning, Kageyama offers three tests for the classification: (a) *soo* substitution, (b) subject honorification, and (c) an additional compounding of the first verb. In what follows, I show that reciprocal verbal compounds behave like syntactic compounds regarding these tests.

First, let us consider *soo* substitution. As shown in (5b), verb phrases can be replaced with *soo* in Japanese.

- (5) a. John-ga nihon-ni it-ta. b. Mary-mo [soo si]-ta.
 John-NOM Japan-LOC go-PAST Mary-also so do-PAST
 ‘John went to Japan.’ ‘Mary did so, too. (= Mary also went to Japan.)’

I assume here that in order to receive the correct interpretation at LF, *soo* requires an antecedent, like *do so* anaphora in English (Hallman 2004). Whatever accounts for the nature of the replacement, a replaced position must be accessible during the syntactic derivation. This means that *soo* cannot be part of lexically fixed words. Given this, we can use *soo* replacement as a diagnostic of the nature of Japanese verbal compounds. As shown in (6) and (7), when we apply *soo* replacement to the first verb of verb-verb compounds, only syntactic compounds allow the replacement.

(6) Lexical Verbal Compounds

- a. Mary-ga nai-ta node, John-mo [naki-saken-da].
 Mary-NOM cry-PAST because John-also cry-scream-PAST
 ‘Since Mary cried, John also cried loudly.’
 b. *Mary-ga nai-ta node, John-mo [[soo si]-saken-da].
 Mary-NOM cry-PAST because John-also so do-scream-PAST
 ‘lit. Since Mary cried, John did so loudly.’

(7) Syntactic Verbal Compounds

- a. Mary-ga nai-ta node, John-mo [naki-tsuzuke-ta].
 Mary-NOM cry-PAST because John-also cry-continue-PAST
 ‘Since Mary cried, John also continued to cry.’
 b. Mary-ga nai-ta node, John-mo [[soo si]-tsuzuke-ta].
 Mary-NOM cry-PAST because John-also so do-continue-PAST
 ‘lit. Since Mary cried, John also continued to do so.’

Reciprocal verbal compounds behave like syntactic compounds in this respect, as shown in (8b). This means reciprocal verbal compounds should be classified as syntactic compounds.

(8) Reciprocal Verbal Compounds

- a. [Mary-to Hanako]-ga nai-ta node, [John-to Taro-mo [naki-at-da].
Mary-and Hanako-NOM cry-PAST because John-and Taro-also cry-REC-PAST
'Since Mary and Hanako cried together, John and Taro also cried together.'
- b. [Mary-to Hanako]-ga nai-ta node, John-to Taro-mo [[soo si]-at-da].
Mary-and Hanako-NOM cry-PAST because John-and Taro-also so do-REC-PAST
'lit. Since Mary and Hanako cried together, John and Taro also did so together.'

In a similar vein, we can make use of subject honorification as a diagnostic of the nature of reciprocal verbal compounds. As shown in (9) and (10), only the first verb in syntactic verbal compounds can undergo subject honorification.

(9) Lexical Verbal Compounds

- a. Yamada sensei-ga denwabangoo-o kaki-kon-da.
Yamada Prof.-NOM phone.number-ACC write-down-PAST
'Prof. Yamada wrote down a phone number.'
- b. *Yamada sensei-ga denwabangoo-o o-kaki-ni-nari-kon-da.
Yamad Prof.-NOM phone.number-ACC HON-write-NI-be-down-PAST

(10) Syntactic Verbal Compounds

- a. Yamada sensei-ga denwabangoo-o kaki-tsuzuke-ta.
Yamada Prof.-NOM phone.number-ACC write-continue-PAST
'Prof. Yamada continued to write down a phone number.'
- b. Yamada sensei-ga denwabangoo-o o-kaki-ni-nari-tsuzuke-ta.
Yamad Prof.-NOM phone.number-ACC HON-write-NI-be-continue-PAST

Although Japanese subject honorification is the subject of ongoing discussion (Boeckx & Niinuma 2004, Bobaljik & Yatsushiro 2006, Ivana & Sakai 2007, a.o.), it is generally assumed that honorific forms can appear only in positions to which syntactic operations have access through the derivation. Reciprocal verbal compounds allow subject honorification, as shown in (11b). This again shows that reciprocal verbal compounds should be analyzed as an instance of syntactic compounding.

(11) Reciprocal Verbal Compounds

- a. Yamada sensei-ga Taro-to denwabangoo-o tasikame-at-ta.
Yamada Prof.-NOM Taro-with phone.number-ACC confirm-REC-PAST
'Prof. Yamada and Taro confirmed a phone number together.'
- b. Yamada sensei-ga Taro-to denwabangoo-o o-tasikame-ni-nari-at-ta.
Yamad Prof.-NOM Taro-with phone.number-ACC HON-confirm-NI-be-REC-PAST

Finally, consider the cases where the first verb of compounds undergoes another compounding process. In (12a), the verb *nak-u* 'cry' is combined with the adverbial element *oo-* 'big'. When this type of deverbal compound appears in a predicate position, the support of the light verb *su* 'do' is required, as in (12a). Suppose that deverbal compounds and the light verb combine in the syntax. Under this assumption, we can correctly predict that deverbal compounds cannot be used as the first verb in lexical verbal compounds because lexical verbal compound cannot contain syntactically accessible units inside it. This prediction is borne out as shown in (12b).

(12) Lexical Verbal Compounds

- a. John-ga oo-naki-si-ta. b. * John-ga oo-naki-si-saken-da.
John-NOM big-cry-do-PAST John-NOM big-cry-do-scream-PAST
'John cried hard.' 'lit. John cried hard loudly'

In contrast, we can make use of deverbal compounds as an ingredient of syntactic verbal compounds, as in (13b). The contrast between (12b) and (13b) is accounted for because syntactic verbal compounds can contain syntactic units as their parts. Again, reciprocal verbal compounds behave like syntactic verbal compounds in this respect, as in (14b).

- (13) Syntactic Verbal Compounds
- a. John-ga oo-naki-si-ta. b. John-ga oo-naki-si-tsuzuke-ta.
 John-NOM big-cry-do-PAST John-NOM big-cry-do-continue-PAST
 ‘John cried hard.’ ‘John continued to cry hard.’
- (14) Reciprocal Verbal Compounds
- a. [John-to Mary]-ga oo-naki-si-ta.
 John-and Mary-NOM big-cry-do-PAST
 ‘John and Mary cried hard.’
- b. [John-to Mary]-ga oo-naki-si-at-da.
 John-and Mary-NOM big-cry-do-REC-PAST
 ‘John and Mary cried hard together.’

The data discussed so far show that reciprocal verbal compounds should be classified as syntactic verbal compounds. This means we should analyze reciprocal verbal compounds from a syntactic point of view.

3. Arguments against Nishigauchi (1992)

3.1. Nishigauchi (1992)

Japanese reciprocal verbal compounds have two ways to express their participants, as in (2). Nishigauchi (1992) proposes that the examples (2a,b) involve the derivations in (15a,b), respectively.

- (15) a. [IP [NP John-to Mary]₁ [[VP t₁ [[VP Op₂ [VP t₁ [t₂ V]]] -aw]] I]]
 b. [IP [t₃ Mary]₁ [[VP John-to₃ [VP [~~t₃ Mary~~]_T [[VP Op₂ [VP t₁ [t₂ V]]] -aw]]] I]]

(15a) is the structure of (2a). Here, a plural subject is base-generated in the embedded VP, and then it is moved to Spec,VP headed by *-aw*. In this position, the plural subject enters into an agreement relation with *-aw*, and receives distributive interpretation due to the [distributive] feature on *-aw*. In addition, Nishigauchi (1992) assumes that a null operator that is base-generated in the complement position of the embedded VP functions as a reciprocator. Nishigauchi’s analysis can then be interpreted as follows: *-aw* functions as a distributor, and the null operator function as a reciprocator.

(15b) is the structure (2b). Of importance here is that Nishigauchi (1992) analyzes the discontinuous particle *-to* as a coordinate particle. As shown in (15b), the two noun phrases are introduced into the derivation as a coordination phrase. The whole coordination phrase is then adjoined to the VP. In this position, the coordination phrase receives distributive interpretation as a result of agreement with *-aw*. After this agreement relation is established, the first conjunct is moved out of the whole coordination phrase, and attaches to the VP headed by *-aw*. The remnant NP further moves to Spec,IP, and we obtain the surface order of the discontinuous reciprocal construction. Note that (15b) also includes movement of the null operator, which functions as a reciprocator.

Nishigauchi’s analysis contains two important assumptions. First, he assumes that discontinuous phrases are derived from coordination phrases. Here, I refer to this kind of analysis as the unified analysis of Japanese reciprocal verbal compounds. Second, he assumes that the reciprocal operator must be governed by *-aw*. In particular, he argues that Japanese reciprocal verbal compounds involve operator movement of a null reciprocator. In what follows, I provide arguments against these two assumptions.

3.2. Arguments against the unified analysis

Siloni (2012) points out that in the discontinuous construction, reciprocity holds only between the set denoted by the subject noun phrase and the set denoted by the oblique noun phrase. On the other hand, such a restriction is not observed in the regular reciprocal construction. The same situation is attested in Japanese. As shown in (16a), the discontinuous construction cannot mean that there is a mutual abusing event within the set of students or teachers. On the other hand, the regular reciprocal construction such as (16b) has this mutual event interpretation.

- (16) a. *gakusei-ga kyoosi-to nonorisi-at-ta.*
 student-NOM teacher-with abuse-REC-PAST
 ‘Students abused teachers.’
 ‘* Students abused each other, and teachers abused each other.’
- b. [*gakusei-to kyoosi]-ga nonosiri-at-ta.*
 student-and teacher-NOM abuse-REC-PAST
 ‘Students abused teachers.’
 ‘Students abused each other, and teachers abused each other.’

It is difficult to explain the contrast between (16a) and (16b) under the unified analysis since both the regular reciprocal construction and the discontinuous construction should behave alike with respect to their reciprocal interpretation under the unified analysis.

Next, let us look at the reciprocal interpretation in comparative clauses. Siloni (2012) points out that in Hebrew reciprocal expressions with the nominal strategy show ambiguity in terms of the interpretation of elided parts in comparative clauses. A similar contrast holds in Japanese reciprocal verbal compounds. As can be seen in (17a), the comparative clause results in a three-way ambiguity. The crucial point is that in the second and the third reading, Taro and John can be in a reciprocal relationship with Mary. On the other hand, (17b) has only the interpretation that Mary is in a reciprocal praising relationship with someone other than Taro and John.

- (17) a. [*Mary-yori naga-ku*] *Taro-ga John-to home-at-ta.*
 Mary-than long-PRED Taro-NOM John-with praise-REC-PAST
 ‘Taro and John praised each other longer than Mary and someone.’
 ‘Taro and John praised each other longer than Mary and Taro.’
 ‘Taro and John praised each other longer than Mary and John.’
- b. [*Mary-yori naga-ku*] [*Taro-to John]-ga home-at-ta.*
 Mary-than long-PRED Taro-and John-NOM praise-REC-PAST
 ‘Taro and John praised each other longer than Mary and someone.’
 ‘* Taro and John praised each other longer than Mary and Taro.’
 ‘* Taro and John praised each other longer than Mary and John.’

Under Nishigauchi’s (1992) analysis, it is difficult to explain this contrast since regular and discontinuous reciprocal constructions share the structure which receives similar interpretation.

Moreover, the unified analysis in Nishigauchi (1992) cannot capture the acceptability of (18). In (18), both a plural subject and a discontinuous phrase appear in one sentence. Since Nishigauchi (1992) assumes that discontinuous phrases are derived from coordination phrases, his analysis predicts that (18) should be ungrammatical, contrary to the fact.

- (18) [*John-to Mary]-ga Taro-to home-at-ta.*
 John-and Mary-NOM Taro-with praise-REC-PAST
 ‘John and Taro praised each other and Mary and Taro praised each other.’

Note that in (18) the reciprocal relationship holds between Taro and one of two people denoted by the coordination phrase. It is unclear how to obtain this reciprocal interpretation under the unified analysis.

Finally, consider the examples in (19). Nishigauchi (1992) argues (19a) is ungrammatical because it includes movement of the reciprocator which violates the complex NP constraint. He argues that the ungrammaticality of (19a) arises from the same type of violation in the one observed in (19b). In other words, he argues that movement of the null reciprocator is sensitive to island effects.

- (19) a. * [*John-to Mary]-ga* [_{NP} [_{RC} *Bill-ga* Δ Δ_1 *kai-ta*] *tegami₁-o*
 John-and Mary-NOM Bill-NOM write-PAST letter-ACC
yomi-at-ta.
 read-REC-PAST
 ‘lit. John and Mary read-REC the letter that Bill wrote to the other.’
 ‘John and Mary each read the letter that Bill wrote to the other.’ (Nishigauchi 1992: 175)

- b. *_{[NP [RC Mary-ga [NP [RC Bill-ga Δ Δ₁ kai-ta] tegami₁]-o yon-da] hito]}
 Mary-NOM Bill-NOM write-PAST letter-ACC read-PAST person
 ‘the person x such that Mary read the letter that Bill wrote to x’ (Nishigauchi 1992: 177)

However, as pointed out by Yumoto (2005), the unacceptability of (19a) and (19b) does not necessarily arise from a violation of the Complex NP Constraint. For example, (20a) is completely acceptable in contrast to (19a). The same contrast can be observed between (19b) and (20b).

- (20) a. [John-to Mary]-ga [NP [RC Bill-ga Δ Δ₁ okut-ta] tegami₁]-o yomi-at-ta.
 John-and Mary-NOM Bill-NOM send-PAST letter-ACC read-REC-PAST
 ‘John and Mary each read the letter that Bill sent to the other.’
 b. [NP [RC Mary-ga [NP [RC Bill-ga Δ Δ₁ okut-ta] tegami₁]-o yon-da] hito]
 Mary-NOM Bill-NOM sent-PAST letter-ACC read-PAST person
 ‘the person x such that Mary read the letter that Bill sent to x’

The only difference between (19) and (20) is that only in (20), the gap is an argument of a predicate. In other words, (20) shows that if the gap position can be interpreted as an argument of a predicate, there is no complex NP constraint effect. For Nishigauchi, the locality effect in (19) follows from the movement of the reciprocator. The acceptability of (20) is then not expected under his analysis.

4. Proposal

We have observed above that Nishigauchi’s analysis cannot be maintained. Given this, I propose (i) that in Japanese reciprocal verbal compounds, the reciprocal interpretation comes from a null nominal reciprocal that corresponds to overt reciprocals such as *otagai*, and (ii) that discontinuous phrases are not derived from coordination phrases. This is illustrated in (21).

- (21) a. [John-to Mary]-ga kinoo Δ_{REC} home-at-ta.
 John-and Mary-NOM yesterday praise-REC-PAST
 ‘John and Mary praised each other yesterday.’ [Regular Reciprocal Construction]
 b. John-ga kinoo Mary-to Δ_{REC} home-at-ta.
 John-NOM yesterday Mary-with praise-REC-PAST
 John and Mary praised each other yesterday.’ [Discontinuous Reciprocal Construction]

In (21), Δ_{REC} stands for null counterparts of nominal reciprocals such as *otagai*. In contrast to Nishigauchi (1992), I assume that null reciprocals are not operators and not subject to QR or operator movement. Since the proposed analysis does not rely on the movement of null reciprocators, it does not require discontinuous phrases to be derived from coordination phrases.

It is widely assumed that Japanese does not allow null reflexives based on the example like (22a). However, examples like (22b), which involves a plural subject and allows a reciprocal interpretation, have not been closely investigated so far, to the best of my knowledge.

- (22) a. John-ga Δ tatai-ta. b. [John-to Mary]-ga Δ tatai-ta.
 John-NOM hit-PAST John-and Mary-NOM hit-PAST
 ‘John hit someone’ ‘John and Mary hit someone’
 ‘* John hit himself.’ ‘? John and Mary hit each other.’

Although there is a preference for pronominal interpretation, a reciprocal interpretation is not ruled out in (22b), in contrast to the reflexive interpretation. Moreover, the reciprocal interpretation becomes more salient when we add adverbial elements which emphasize interaction between the participants, as shown in (23). Note that even here, a reflexive interpretation of the null object is not allowed.

- (23) [John-to Mary]-ga Δ koogoni tatai-ta.
 John-and Mary-NOM alternately hit-PAST
 ‘John and Mary hit someone alternately.’
 ‘John and Mary hit each other alternately.’
 ‘* John hit himself and Mary hit herself alternately.’

5. Support

The proposed analysis can capture the data discussed in section 3, which were shown to be problematic for Nishigauchi's analysis. First, consider again the examples in (16). In contrast to the discontinuous construction, the regular reciprocal construction is unambiguous and the reciprocal relationship must be established between students and teachers. Importantly, note that the same contrast is observed when we use overt nominal reciprocals such as *otagai*, as shown in (24).

- (24) a. *gakusei-ga kyoosi-to otagai-o nonorisi-at-ta.*
 student-NOM teacher-with REC-ACC abuse-REC-PAST
 'Students abused teachers.'
 '* Students abused each other, and teachers abused each other.'
- b. [*gakusei-to kyoosi*]-*ga otagai-o nonosiri-at-ta.*
 student-and teacher-NOM REC-ACC abuse-REC-PAST
 'Students abused teachers.'
 'Students abused each other, and teachers abused each other.'

In contrast to Nishigauchi's unified analysis, discontinuous phrases are not derived from coordination phrases under the proposed analysis. Therefore, (16a) and (16b) do not have to be interpreted in the same way. The proposed analysis in fact correctly predicts that the examples in (16) should behave like (24).

Second, the contrast in (17) also follows from the proposed analysis. Suppose that the denotation of Japanese comparative clauses is contextually determined, and that matrix clauses play a crucial role in restricting such contextual information (see Beck et al. (2004) and Sudo (2015) for analyses of phrasal comparatives in Japanese). In (17a), the discontinuous phrase *John-to* 'John-with' can be compared with Mary, independently of the subject phrase. In a similar vein, the subject phrase Taro also can be independently compared with Mary in (17a). On the other hand, in (17b), only the plural subject phrase is compared with Mary; it is not possible to compare each conjunct with Mary. This is why (17b) is unambiguous, in contrast to (17a). Under the unified analysis, it is difficult to explain this contrast since regular and discontinuous reciprocal constructions share the structure which receives similar interpretation. Furthermore, the proposed analysis can capture the similarity between (17) and (25), involving an overt nominal reciprocal.

- (25) a. [*Mary-yori naga-ku*] *Taro-ga John-to otagai-o home-at-ta.*
 Mary-than long-PRED Taro-NOM John-with REC-ACC praise-REC-PAST
 'Taro and John praised each other longer than Mary and someone.'
 'Taro and John praised each other longer than Mary and Taro.'
 'Taro and John praised each other longer than Mary and John.'
- b. [*Mary-yori naga-ku*] [*Taro-to John*]-*ga otagai-o home-at-ta.*
 Mary-than long-PRED Taro-and John-NOM REC-ACC praise-REC-PAST
 'Taro and John praised each other longer than Mary and someone.'
 '* Taro and John praised each other longer than Mary and Taro.'
 '* Taro and John praised each other longer than Mary and John.'

Third, the proposed analysis explains the acceptability of (18). In (18), both a plural subject and a discontinuous phrase appear in one sentence. Since Nishigauchi (1992) assumes that discontinuous phrases are derived from coordination phrases, his analysis wrongly predicts (18) to be ungrammatical. On the other hand, the proposed analysis can capture the grammaticality of (18). Since discontinuous phrases are not derived from coordination phrases, they can co-occur with each other. Again, the covert nominal reciprocal can be overtly realized, as shown in (26).

- (26) [*John-to Mary*]-*ga Taro-to otagai-o home-at-ta.*
 John-and Mary-NOM Taro-with REC-ACC praise-REC-PAST
 'lit. John and Mary praised each other with Taro.'
 'John and Taro praised each other and Mary and Taro praised each other.'

Finally, the proposed analysis can capture the contrast between (19a) and (20a). Importantly, when nominal reciprocals are used covertly, there is a contrast between arguments and non-arguments in that only the former can derive reciprocal interpretation, as can be seen in (27).

- (27) a. [John-to Mary]-ga Δ tegami-o (koogoni) kai-ta.
 John-and Mary-NOM letter-ACC alternately write-PAST
 ‘John and Mary wrote a letter (alternately).’
 ‘*John and Mary each wrote a letter to the other (alternately).’
- b. [John-to Mary]-ga Δ tegami-o (koogoni) okut-ta.
 John-and Mary-NOM letter-ACC alternately send-PAST
 ‘John and Mary sent a letter to someone (alternately).’
 ‘John and Mary each sent a letter to the other (alternately).’

In contrast to (27b), where the verb takes two internal arguments, (27a) cannot receive reciprocal interpretation. These examples show that null nominal reciprocals can be used only as an argument. Given this, I argue that the contrast between (19a) and (20a) comes from the (un)availability of covert non-argument reciprocals. Since a null nominal reciprocal cannot appear in (19a), the sentence is unacceptable under reciprocal interpretation. Now, we can explain the absence of reciprocal interpretation in (3) and (4). Since we cannot make use of covert non-argument reciprocals, there is no position for a null nominal reciprocal in these examples. In (3), the position is occupied by an overt object phrase. In (4), the position does not exist in the first place since the first verb in the reciprocal verbal compound is intransitive. Notice that overt nominal reciprocals can be used as a non-argument. For instance, when an overt nominal reciprocal appears in (19a), the resulting sentence receives reciprocal interpretation, as pointed out by Nishigauchi (1992). Of importance here is that only when *-aw* appears with overt/covert nominal reciprocals, the resulting sentence can receive reciprocal interpretation. In other cases, *-aw* derives sociative interpretation. The fact that (19a) is grammatical under sociative interpretation also supports this point. This means that *-aw* is not specialized for reciprocal interpretation.

6. Conclusion

I have shown that Nishigauchi’s (1992) unified analysis of reciprocal verbal compounds faces some empirical problems, and concluded that it cannot be maintained. Instead, I argued (i) that Japanese allows null reciprocals in contrast to null reflexives, and (ii) that null nominal reciprocals play a crucial role in deriving reciprocity in Japanese reciprocal verbal compounds.

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Proceedings of the 34th West Coast Conference on Formal Linguistics

edited by Aaron Kaplan, Abby Kaplan,
Miranda K. McCarvel, and Edward J. Rubin

Cascadilla Proceedings Project Somerville, MA 2017

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Tatsumi, Yuta. 2017. Reciprocal Verbal Compounds and Null Reciprocals in Japanese. In *Proceedings of the 34th West Coast Conference on Formal Linguistics*, ed. Aaron Kaplan et al., 536-543. Somerville, MA: Cascadilla Proceedings Project. www.lingref.com, document #3361.