

# Some Notes on Verbal Reflexives in Japanese

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## 1. Introduction

The syntax and semantics of reflexive pronouns in Japanese has received a great deal of attention in linguistic theory in general as well as in the study of Japanese grammar in particular. But the major focus in the generative literature has been on the simplex anaphor *zibun* and the complex forms *zibun-zisin* and *kare-zisin* (a SE anaphor and SELF anaphors, respectively, in the terminology of Reinhart and Reuland (1993) (henceforth R&R)). There is no doubt that these forms play an important role in the grammar of Japanese, but there are a variety of other ways by which to encode the notion of reflexivity in the grammar of Japanese.

I took up the issue of verbal reflexives in Japanese in Noguchi (1995), where I discussed the phenomenon of local pronominal coreference in clauses with a predicate marked with a reflexive prefix *ziko-* 'SELF' (see also Aikawa 1993), and followed up on it in Noguchi (2005, 2010), where I discussed the way such reflexive forms as *ziko-*, *zi-*, and *zisin* contribute to the interpretation of the clause containing them. In fact, these are not the only forms that reflexive-mark predicates, but a wide range of lexical items including body-part nouns (e.g. *karada* 'body,' *kosi* 'hip,' *kubi* 'neck'), nouns denoting the state of mind such as *ki* 'temper, feelings' and *kokoro* 'mind,' and the first person pronoun *ware* can operate on a predicate to turn it into a reflexive predicate (cf. Hirose and Kaga 1997, Ikegami 2006, Noguchi 2010).

This vast array of reflexive forms in Japanese may not in itself warrant a systematic analysis of the reflexive system in the language, as it is widely known that while some reflexive forms arise as a result of a diachronic change, others become frozen as part of lexical units or even disappear and there is no denying that there might be some sort of grammatical quirks lurking behind the process.<sup>1</sup> This does not mean, however, that it is not worthwhile trying to seek out the mechanism at work and sort out factors making up the whole picture. In this paper, I will try to address some of the issues involved in verbal reflexives in Japanese, by focusing on the morpheme *zi-* and lexical units containing it. I will show that the so-called *zi-*verb construction in Japanese is classified into two types—syntactic and lexical.

The discussion is organized in the following manner. In Section 2, I will review arguments presented by previous studies on the construction in question. I will point out some problems with the previous proposals and provide an alternative solution in Section 3. I will briefly discuss

the status of the *zi*-verb construction in relation to the reflexive system in Japanese in Section 4. This paper concludes in Section 5.

## 2. Previous Analyses of *Zi*-Verbs in Japanese

Tsujimura and Aikawa (1996, 1999) (henceforth T&A) are perhaps the first to draw a systematic attention to the behavior of verbs prefixed with *zi*- in Japanese. As they note, the prefix attaches to a Sino-Japanese base to form a verbal noun (= VN), which is in turn supported by the light verb *suru* ‘do’ to appear in a clause. T&A’s main claim is that the so-called *zi*-verbs fall into two types: the unaccusative and the inalienable, as illustrated below.

(1) Unaccusative Type (T&A 1999: 30)

- a. Taroo-ga *zi-ritu-si-ta*.

Taro-NOM self-establish-do-Past ‘Taro established himself.’

- b. Hanako-ga *zi-satu-si-ta*.

Hanako-Nom self-kill-do-Past ‘Hanako killed herself.’

(2) Inalienable Type (T&A 1999: 35)

- a. Taroo-ga *hankoo-o zi-kyoo-si-ta*.

Taro-Nom crime-ACC self-confess-do-Past  
‘Taro confessed his own crime(s).’

- b. Hanako-ga *musuko-o zi-man-si-ta*.

Hanako-Nom son-Acc self-boast-do-Past  
‘Hanako boasted (about) her own son.’

The unaccusativity of verbs in (1) is suggested by the following diagnostics (T&A 1999: 30-33): they cannot take a direct object (3a), and the subject can be modified by a resultative predicate (cf. Levin and Rappaport Hovav 1995) (3b) and by a VP-internal numeral quantifier (cf. Miyagawa 1989) (3c).

(3) a. \*Taroo-ga *sigoto-o zi-ritu-si-ta*.

Taroo-Nom career-Acc self-establish-do-Past  
‘Taro established his career.’

- b. Taroo-ga *rippa-ni zi-ritu-si-ta*.

Taroo-Nom finely self-establish-do-Past  
‘Taro established himself well.’

- c. Kyonen gakusei-ga [<sub>VP</sub> *abekku-de zyuu-nin zi-satu-si-ta*].

last-year students-Nom in-pairs 10-cl. self-kill-do-Past  
‘Ten students killed themselves in pairs last year.’

T&A argue that these data follow if the verbs in question are unaccusative.

The inalienable type is different from the unaccusative type in that verbs in this class can appear with a direct object, as we saw in (2). Another major characteristic of verbs in this class is that the direct object must have an anaphoric link to the subject (T&A 1999: 37).

- (4) a. Taroo-ga zibun/\*Ziroo-no hankoo-o zi-kyoo-si-ta.  
 Taro-Nom SE/Jiro-Gen crime-Acc self-confess-do-Past  
 ‘Taro confessed his own/\*Jiro’s crime.’  
 b. Hanako-ga zibun/\*Tomoko-no musuko-o zi-man-si-ta.  
 Hanako-Nom SE/Tomoko-Gen son-Acc self-boast-do-Past  
 ‘Hanako boasted (about) her own/\*Tomoko’s son.’

In my judgment, the ungrammatical option of (4b) improves in a context in which Hanako and Tomoko’s son are closely related, e.g. Tomoko’s son is one of Hanako’s students, and Hanako talks proudly about his achievement in a math exam to her colleagues. There seems to be no context, however, where the ungrammatical option of (4a) improves. Thus, let us assume that T&A’s judgments in (4) hold true in general, and I will return to this type of *zi*-verbs in Section 3.

In a recent paper, Kishida and Sato (2012) (henceforth K&S) review the proposal presented by T&A and provide an alternative analysis by focusing on the unaccusative-type *zi*-verb constructions as discussed by T&A. Their major claim is that T&A’s unaccusative type cannot be unified into a single type and needs to be subclassified into three categories: transitive (e.g. *zi-satu-suru* ‘kill oneself,’ *zi-ritu-suru* ‘establish oneself’), unaccusative (e.g. *zi-kai-suru* ‘collapse by itself,’ *zi-ten-suru* ‘roll’), and unergative (e.g. *zi-sui-suru* ‘cook for oneself,’ *zi-syuu-suru* ‘study for oneself’). They use the term “objectless *zi*-verbs” for T&A’s unaccusative *zi*-verbs to the exclusion of T&A’s inalienable type, which K&S do not discuss in their paper.

K&S first try to show that the transitive *zi*-verb such as *zi-satu-suru* ‘kill oneself’ has both an external and an internal argument.<sup>2</sup> They start with the observation that the accusative case marker *-o* can be attached to transitive and unergative VN stems in general, but not to unaccusative ones (cf. Miyagawa 1989) (K&S, p. 204).

- (5) a. Daigaku-de kenkyu(-o) suru hito-ga hue-ta. (Transitive)  
 university-in research(-Acc) do person-Nom increase-Past  
 ‘The number of people who study in universities increased.’  
 b. Roo huuhu-ga rikon(-o) si-ta. (Unergative)  
 old couple-Nom divorce(-Acc) do-Past  
 ‘The old couple got divorced.’  
 c. Kaityoo-ga kinoo sikyo(\*-o) si-ta. (Unaccusative)  
 CEO-Nom yesterday death(-ACC) do-Past ‘The CEO died yesterday.’

The transitive VN stem *kenkyu* in (5a) and the unergative VN stem *riku* in (5b) can be marked with *-o*, but the unaccusative VN stem *sikyo* in (5c) cannot. What K&S call the transitive *zi*-verb can also be marked by the same accusative marker (K&S, p. 204).

- (6) John-wa tuini zi-satu(-o) si-ta. (*Zi*-Verb)  
 John-Top finally self-killing(-Acc) do-Past ‘John finally killed himself.’

Next, the subject of the transitive *zi*-verb such as *zi-satu-suru* ‘kill oneself,’ if embedded in a complement clause of a causative verb *sase*, can be promoted to the matrix subject position in passives, and this patterns with transitive and unergative verbs, but not with unaccusative verbs

(K&S, pp. 204-206).

- (7) a. **Kooti-ga** kantoku-niyotte sensyu-o kitae-sase-rare-ta. (Transitive)  
coach-NOM manager-by players-ACC train-Caus-Pass-Past  
'The coach was made to train the players by the manager.'
- b. **Kodomo-ga** hahaoya-niyotte suwar-ase-rare-ta. (Unergative)  
child-Nom mother-by sit-Caus-Pass-Past  
'The child was made to sit by his mother.'
- c. **\*Daruma-ga** hahaoya-niyotte korob-ase-rare-ta. (Unaccusative)  
doll-Nom mother-by tumble-Caus-Pass-Past  
'The doll was made to tumble by his mother.'
- (8) **John-ga** tomodati-niyotte zi-satu-s-ase-rare-ta. (*Zi*-Verb)  
John-Nom friend-by self-killing-do-Caus-Pass-Past  
'John was made to kill himself by his friends.'

Finally, V-V compounds in Japanese whose second verb is a control verb such as *oeru* 'finish,' *wasureru* 'forget,' and *sokoneru* 'fail' (cf. Kageyama 1993) require their first verb to be agentive. Thus, transitive and unergative verbs can be the first member of such compounds, but unaccusative verbs cannot. The *zi*-verb *zi-satu-suru* again patterns with the transitive and unergative verbs (K&S, p. 206).<sup>3</sup>

- (9) a. **kitae-sokoneru** 'fail to train,' **tukuri-sokoneru** 'fail to make' (V1=Transitive)  
b. **suwari-sokoneru** 'fail to sit,' **odori-sokoneru** 'fail to dance' (V1=Unergative)  
c. **(\*)korobi-sokoneru** 'fail to tumble,' **(\*)taore-sokoneru** 'fail to fall' (V1=Unaccusative)
- (10) **John-wa zi-satu-si-sokone-ta.** (V1= *Zi*-Verb)  
John-Top self-killing-do-fail-Past 'John failed to kill himself.'

The discussion so far indicates that a verb such as *zi-satu-suru* 'kill oneself' has an external argument. K&S proceed to show that this type of verbs is associated with an internal argument as well. For this purpose, they use two diagnostics—interpretations of verbs with an aspect marker *-teiru* (cf. Takezawa 1991) and the deverbal nominal construction based on an aspectual suffix *-kake* (cf. Kishimoto 1996).

Takezawa (1991) notes that the aspect marker *-teiru* can be associated with a progressive and a resultative interpretation. The second option is subject to the following condition, however (K&S, p. 207).

- (11) The resultative interpretation of *-teiru* obtains when there is a binding relation between the (grammatical) subject and internal argument of an affective verb, where the 'internal argument' is an element subcategorized by the verb.

Consider the following examples K&S (p. 207) take from Takezawa (1991):

- (12) a. **Yamada-san-ga omotya-o kowasi-teiru.** (Transitive)  
Yamada-Mr.-Nom toy-Acc break-TEIRU  
'Mr. Yamada is breaking the toy.' [progressive]/[\*resultative]
- b. **Omotya-ga kowas-are-teiru.** (Passive)

toy-Nom break(Tr.)-Pass-TEIRU ‘The toy is broken.’ [resultative]

c. Omotya-ga koware-**teiru**. (Unaccusative)

toy-Nom break(Intr.)-TEIRU ‘The toy is broken.’ [resultative]

The passive and unaccusative verbs have the resultative interpretation, whereas the transitive verb is only associated with a progressive interpretation. The transitive *zi*-verb *zi-satu-suru* allows a resultative reading, however (K&S, p. 208).

(13) (Ano katei-wa) musuko-ga zi-satu-si-**teiru**.

that family-Top son-Nom self-killing-do-TEIRU

‘That family lost their son by his suicide.’ [resultative]

This is because the *zi*-verb *zi-satu-suru* is affective and has an internal argument that is anaphorically linked to the subject in accordance with (11).

The second argument is based on Kishimoto’s (1996) observation that the deverbal nominal with the aspectual morpheme *-kake* ‘be about to, do halfway’ can only modify an internal argument. K&S cite the following examples from Kishimoto (1996: 254-256):

(14) a. yomi-**kake**-no zassi (Transitive)

read-KAKE-Gen magazine ‘the magazine, read halfway’

b. \*yomi-**kake**-no Masao (Transitive)

read-KAKE-Gen Masao ‘Masao, read halfway’

(15) a. \*hasiri-**kake**-no rannaa (Unergative)

run-KAKE-Gen runner ‘the runner, almost running’

b. aki-**kake**-no doa (Unaccusative)

open-KAKE-Gen door ‘the door, slightly ajar’

The *zi*-verb *zi-satu-suru* patterns with (14a)/(15b) (K&S, p. 209).

(16) Zi-satu-si-**kake**-no musuko-o nantoka tasuke-rare-ta.

self-killing-do-KAKE-Gen son-Acc somehow rescue-can-Past

‘We could somehow rescue our son, who almost killed himself.’

From these observations, K&S (p. 209) conclude that a verb like *zi-satu-suru* is associated with a “transitive argument structure.”

Turning our attention to the other two types of objectless *zi*-verbs, the unaccusative and unergative types, K&S make the observations that I will briefly summarize. Take the *zi*-verb *zi-kai-suru* ‘collapse by itself’ as an example of the first type. The results of the external argument diagnostics (accusative marker *-o*, passivization, and control) and of the internal argument diagnostics (resultative predicate, numeral quantifier, resultative aspect, and *-kake* modification) are given in (17) and (18), respectively (K&S, p. 210).

(17) Unaccusative (No EA)

a. (Tuyoi zisin-notame) tatemono-ga zi-kai(\*-o) si-ta.

strong earthquake-for building-Nom self-collapse(-Acc) do-Past

‘The building got collapsed due to a strong earthquake.’

b. \*Ie-ga John-niyotte zi-kai-s-ase-rare-ta.

house-Nom John-by self-collapse-do-Caus-Pass-Past

‘The house was made to get collapsed by John.’

- c. \*Tatemono-ga zi-kai-si-*sokone*-ta.

building-Nom self-collapse-do-fail-Past

‘The building failed to get collapsed.’

(18) Unaccusative (IA)

- a. Tatemono-ga [<sub>VP</sub> **konagonani** zi-kai-si-ta].

building-Nom into-pieces self-collapse-do-Past

‘The building collapsed into pieces.’

- b. Tatemono-ga [<sub>VP</sub> sono sikitinai-de **san-mune** zi-kai-si-ta].

building-Nom that premise-Loc three-Cl self-collapse-do-Past

‘Three buildings collapsed on that premise.’

- c. Tatemono-ga [<sub>VP</sub> zi-kai-si-**teiru**].

building-Nom self-collapse-do-TEIRU

‘The building has collapsed.’ [resultative]

- d. zi-kai-si-**kake**-no tatemono

self-collapse-do-KAKE-Gen building ‘the building, half collapsed’

K&S conclude from these results that the verb *zi-kai-suru* is unaccusative.

Finally, the unergative type *zi-sui-suru* ‘cook for oneself’ exhibits different behaviors (K&S, pp. 210-211; (20c) is adapted from Takezawa (1991: 71-72)).

(19) Unergative (EA)

- a. John-ga zi-sui(-o) suru.

John-Nom self-cooking-Acc do ‘John cooks for himself.’

- b. **Musuko**-ga John-niyotte zi-sui-s-ase-rare-ta.

son-Nom John-by self-cooking-do-Caus-Pass-Past

‘His son was made to cook for himself by John.’

- c. John-wa isogasisa-no-tame saikin zi-sui-si-**sokone**-teiru.

John-Top busyness-for recently self-cooking-do-fail-TEIRU

‘John has been failing to cook for himself recently because of his busyness.’

(20) Unergative (No IA)

- a. ??John-wa [<sub>VP</sub> **rippani** zi-sui-si-ta].

John-Nom finely self-cooking-do-Past

‘John finely cooked for himself.’

- b. ??Gakusei-ga apaato-de **san-nin** zi-sui-suru.

student-Nom apartment-Loc three-Cl self-cooking-do

‘Three students cook for themselves.’

- c. John-wa zi-sui-si-**teiru**.

John-TOP self-cooking-do-TEIRU

‘John is cooking his own food.’ [progressive]/[\*resultative]



- d. \**zi-sui-si-kake-no*                      John  
       self-cooking-do-KAKE-Gen John  
       ‘John, half doing his cooking’

These results show that the verb *zi-sui-suru* has only an external argument and is unergative.

To summarize the discussion so far, we have seen that there are two approaches to the *zi*-verb construction in Japanese. The first one, proposed by T&A, argues that the construction comes in two types, i.e. the unaccusative and the inalienable. The second one, proposed by K&S, argues that the objectless *zi*-verb construction is not uniformly unaccusative, but is subclassified into three categories, i.e. the transitive, the unaccusative, and the unergative.

### 3. An Alternative Analysis

K&S’s detailed discussion of *zi*-verbs in Japanese reviewed briefly in the previous section is based on a wide range of empirical data and provides a useful background for the understanding of verbal reflexives in general. Their proposal is not without problems, however, and I will present an alternative analysis by providing some empirical motivation.

The first problem has to do with their claim that the “objectless” *zi*-verb construction as exemplified by the verb *zi-satu-suru* ‘kill oneself’ has a “transitive” argument structure. The reader may immediately notice that this claim is almost contradictory: the verb cannot be both objectless and transitive at the same time. Let us consider K&S’s analysis of this type of verbs. They assume that a sentence like (21) is based on an argument structure (= AS) and its associated lexical conceptual structure (= LCS) in (22) (p. 214).

(21) John-ga    *zi-satu-suru*.

      John-Nom self-killing-do ‘John kills himself.’

(22) a. AS:        (x, (y))

      b. LCS:        [X CAUSE [Y BECOME DEAD]]

The variable X in the LCS is mapped to the external argument and the variable Y to the internal argument. But, as indicated in (21), there is apparently no internal argument corresponding to the y variable in the AS. They make the following remark (p. 214): “Once the AS is mapped to the syntactic representation, the internal argument is obligatorily incorporated into the verbal complex due to its affixal nature.” They do not indicate exactly what type of process this is, except for mentioning that (21) is equivalent in meaning to *John-ga zibun-o korosu* ‘John kills himself.’

The second problem with K&S’s analysis is that since they do not discuss the inalienable type as discussed by T&A, it is not clear how it is distinguished from their transitive type; these are obviously both transitive. So, one might wonder how their objectless *zi*-verb fits into the overall picture.

In Noguchi (2005), I argue that there are two ways of reflexivizing verbs in Japanese—one by

a head movement of *ziko*- ‘self’ in the overt syntax and the other by a head movement of *zisin* in the covert syntax.<sup>4</sup>

- (23) a. John-ga [<sub>DP</sub> kare t<sub>i</sub>]-o ziko<sub>i</sub>-hihan-si-ta. (Overt syntax)  
           John-Nom he-Acc self-criticism-do-Past ‘John criticized himself.’  
       b. John-ga [<sub>DP</sub> kare zisin]-o hihan-si-ta. (Overt syntax)  
           John-Nom he self-Acc criticism-do-Past ‘John criticized himself.’  
       b’. John-ga [<sub>DP</sub> kare t<sub>i</sub>]-o zisin<sub>i</sub>-hihan-si-teiru. (LF)

Thus, while the verb is reflexive-marked in the overt syntax in (23a), *-zisin* has to wait until LF to reflexivize the verb. In Noguchi (2010), I slightly modify the proposal and argue that *-zisin* is an emphatic marker and does not in itself contribute to the reflexive interpretation. This comes from my observation that the behavior of *-zisin* is roughly parallel to the adjunct status of Old and Middle English *self* (cf. Van Gelderen 2000), as witnessed by the fact that *-zisin* can attach to a variety of DPs including proper names with or without a title (e.g. *John-zisin* ‘John himself,’ *Yamada-san-zisin* ‘Mr. Yamada himself’) and DPs with a demonstrative determiner (e.g. *ano-bito-zisin* ‘that person himself’). This situation can now be resolved by assuming that the two proposals are in fact both correct and reflect two sides of the same coin: *-zisin* can be either a reflexivizer or an emphatic marker. In this respect, *-zisin* is similar to the Middle English *self*, which has both functions as well (cf. Van Gelderen 2000, Noguchi 2010). The question I would like to address is if we can extend this general approach to verbal reflexives in Japanese. More specifically, the question is whether *zi-* undergoes head movement in the same way as *-ziko* and *-zisin* do.

As we saw, K&S suggest that the transitive *zi*-verb *zi-satu-suru* ‘kill oneself’ is derived by means of incorporation. Takezawa (1991: 71) makes the point more explicit and proposes that the process is syntactic.

- (24) [<sub>DP</sub> Yamada-san-no musuko]<sub>i</sub>-ga [<sub>VP</sub> [<sub>DP</sub> t<sub>i</sub>] [<sub>V</sub> zi<sub>i</sub>-ritu-si-teiru]]  
           Yamada-Mr.-Gen son-Nom self-establish-do-TEIRU  
           ‘Mr. Yamada’s son has established himself.’

The reflexive *zi-* is base-generated in the object position and undergoes head movement to become part of the verbal complex. A resultative interpretation obtains, as expected under Takezawa’s generalization in (11). Note that this type of syntactic operation is similar to what I propose for the *ziko*-verb construction in (23a). The question is if reflexive-marking of verbs can be generalized in this manner. I think the answer is in the negative, and Takezawa’s analysis in (24) (as well as K&S’s if implemented in this particular manner) needs to be abandoned.

As we saw in (23a), the *ziko*-verb construction allows a pronominal coreference in a local domain (cf. Noguchi 1995). This option is not available with the transitive *zi*-verb, however.

- (25) \*John-ga kare-o zi-satu-si-ta.  
           John-Nom he-Acc self-killing-do-Past ‘John killed himself.’

In order to understand what underlies the two cases, we need to look into the nature of the light verb *suru* ‘do,’ whose role in the reflexive verb constructions has not been explored in

sufficient detail in the literature. Takezawa's proposal entails that the underlying form of (24) is (26).

(26) Yamada-san-no musuko-ga [<sub>VP</sub> [<sub>DP</sub> *zi*]-o satu-si-ta].

If true, the morphemes *zi*- and *satu* must enter the numeration as separate items selected from the lexicon. I believe that this is based on a dubious assumption; *zi*, as we saw, is not only selective as to the kind of stems that it attaches to but is also quite idiosyncratic in that it only attaches to a stem corresponding to a single Chinese character. There are cases like *zi-ei-tai* 'self-defense forces,' *zi-ga-zoo* 'self-portrait,' and so on (cf. Noguchi 2005, 2010), but these are the products of a further morphological process. Note also that these words exist independently of the light verb *suru*. On the other hand, the morpheme *ziko*-, which itself is based on *zi*-, quite productively creates compound words.

(27) *ziko-hihan* 'self-criticism,' *ziko-bunseki* 'self-analysis,'

*ziko-sihon* 'one's own funds,' *ziko-chuusin* 'self-center'

The morpheme can become non-affixal as well, as illustrated by cases like *ziko-o migaku* 'to polish oneself,' and *ziko-no tankyuu* 'exploration of oneself' (cf. Noguchi 2010). In view of these facts, we are led to conclude that Takezawa's syntactic incorporation analysis of *zi*- form is not well motivated.

The proposal I wish to make is (i) that T&A's inalienable type and K&S's transitive and unergative types can be collapsed into a uniform syntactic class; the only difference among them is that the inalienable type can have an independent argument and (ii) that it is not the morpheme *zi*- that undergoes head movement, but it is the *zi*-VN complex that has that option. Specifically, the *zi*-verb construction comes in two varieties: the *zi*-VN either undergoes head movement into the light verb *suru* or combines with the light verb forming the verbal complex *zi*-VN-*suru* in the lexicon. The first option underlies inalienable, transitive and unergative *zi*-verbs (call them Type A), and the second corresponds to the unaccusative type (call it Type B).

That the syntactic movement in Type A *zi*-verbs is optional is due to the following reasons. This type of *zi*-verbs has an accusative Case feature to be checked, and this requirement is only met in a transitive verb configuration. The VN can undergo head movement, in which case the accusative Case feature is reduced, as is generally the case with noun incorporation (cf. Baker 1988).

(28) Type A *Zi*-Verbs

...[<sub>VP</sub> [<sub>DP</sub> *zi*-satu/*zi*-sui/*zi*-man] *suru*] →

...[<sub>VP</sub> [<sub>DP</sub> *t<sub>i</sub>*] *zi*-satu<sub>i</sub>/*zi*-sui<sub>i</sub>/*zi*-man<sub>i</sub>-*suru*]

The VN can also stay in situ, in which case the light verb inherits the thematic and Case properties from its complement (cf. Grimshaw and Mester 1988); the accusative Case feature transferred to the light verb is checked by the VN itself.

(29) a. John-ga *zi*-satu-o *suru*. (Transitive)

John-Nom self-killing-Acc do 'John kills himself.'

b. John-ga *zi*-sui-o *suru*. (Unergative)

John-Nom self-cooking-Acc do ‘John cooks for himself.’

- c. John-ga zi-man-o suru. (Inalienable)

John-Nom self-boast-Acc do ‘John boasts about himself.’

Recall from Section 2 that Takezawa’s generalization is based on the notion of affectedness of an internal argument, which accounts for the availability of the resultative reading with the transitive and unaccusative *zi*-verbs (see (13) and (18c)). This suggests that the semantic requirement cuts across the syntactic distinction proposed in this section. Thus, while the transitive and unaccusative *zi*-VN-*suru* can be associated with the resultative reading, the unergative and inalienable *zi*-VNs are ill-formed under the same reading, whether they are accusative-marked or not. ((30a) is slightly adapted from (20c).)

- (30) a. John-ga zi-sui(-o) si-teiru. (Unergative)

John-Nom self-cook-Acc do-TEIRU

‘John is cooking for himself.’ [progressive]/[\*resultative]

- b. John-ga zi-man(-o) si-teiru. (Inalienable)

John-Nom self-boast-Acc do-TEIRU

‘John is boasting about himself.’ [progressive]/[\*resultative]

This is because the morpheme *zi*- receives an adjunct status in the case of (30a) and is not an affective argument in the case of (30b). If the internal argument is an argument of an affective verb, the resultative reading arises, as Takezawa (p. 68) notes for the inalienable possession construction based on body-part nouns such as *asi* ‘leg,’ *ude* ‘arm,’ *kami* ‘hair,’ and *atama* ‘head.’

- (31) a. Yamada-san-ga asi-o itame-teiru.

Yamada-Mr.-Nom leg-Acc hurt-TEIRU

‘Mr. Yamada has his leg hurt.’ [resultative]

- b. Yamada-san-ga kami-o some-teiru.

Yamada-Mr.-Nom hair-Acc dye-TEIRU

‘Mr. Yamada has his hair dyed.’ [resultative]

An anaphoric link obtains if we assume with Noguchi (1995) that control into DPs is possible with a restricted set of lexical items such as body-part nouns.<sup>5</sup>

- (32) Yamada-san-ga [<sub>DP</sub> pro kami]-o some-teiru.

The anaphoric link is established between the subject and an empty pronominal inside an object position.<sup>6</sup>

The reason that the resultative interpretation is not available with the unergative type is simply due to the fact that this type of verb is in fact derived from a transitive verbal base whose internal argument is inherently saturated or syntactically projected by an argument distinct from the external argument. Since the external argument is assigned to the subject, the *zi*- element is only assigned an adjunct status and hence is translated as ‘for oneself.’ That the internal argument can be syntactically realized is illustrated by the following examples:

- (33) a. ??John-ga syokuji-o zi-sui-si-teiru.

John-Nom meal-Acc self-cooking-do-TEIRU

‘John is cooking his own food.’

- b. John-ga yuusyoku-o zi-sui-si-teiru.

John-Nom supper-Acc self-cook-do-TEIRU

‘John is cooking his own supper.’

To some speakers, (33b) may not be perfect, but I believe that the contrast here is real, which is probably due to the fact that the direct object in (33a) *syokuji* ‘meal’ is generic and redundant in semantic content (inherently saturated), but the direct object in (33b) is richer in semantic content and non-redundant (syntactically projected). Thus, the situation we are looking at is equivalent to the cognate object construction in English (cf. Hale and Keyser 1993):

- (34) a. We laughed./We had a good laugh.

- b. John dreamed./John had a curious dream.

- c. Mary smiled./Mary smiled a sweet smile.

Thus, I argue that (33b) derives from the following structure, with the internal argument left in situ:

- (33b) John-ga [yuusyoku-no zi-sui]-o si-teiru.

John-Nom supper-Gen self-cook-Acc do-TEIRU

In fact, the mechanism underlying (33b) is basically the same behind the inalienable alternation like the following:<sup>7</sup>

- (34) a. Hanako-ga [musuko-no zi-man]-o si-ta.

Hanako-Nom son-Gen self-boast-Acc do-Past

‘Hanako boasted about her own son.’

- b. Hanako-ga [musuko t<sub>i</sub>]-o zi-man<sub>i</sub>-si-ta.

Hanako-Nom son-Acc self-boast-do-Past

‘Hanako boasted about her own son.’

This follows naturally under the current proposal that the inalienable *zi*-verb is syntactically on a par with the transitive and unergative types.

This proposal receives independent empirical support. Recall from Section 2 that the light verb *suru* triggers head movement in general but only if the VN is either transitive or unergative.

- (36) a. kenkyuu-o suru → kenkyuu-suru ‘do research’ (Transitive)

benkyoo-o suru → benkyoo-suru ‘study’

- b. sagyoo-o suru → sagyoo-suru ‘work’ (Unergative)

dansu-o suru → dansu-suru ‘dance’

- c. \*kaiten-o suru → kaiten-suru ‘roll’ (Unaccusative)

\*sikyo-o suru → sikyo-suru ‘die’

As we saw in (35), the inalienable *zi*-verb has the same option. The same mechanism is responsible for an alternation such as the following:

- (37) a. John-ga [<sub>DP</sub> suugaku-no benkyoo]-o si-teiru.

John-Nom math-Gen study-Acc do-TEIRU

‘John is studying mathematics.’

b. John-ga [<sub>DP</sub> suugaku t<sub>i</sub>]-o benkyoo-si-teiru.

Thus, quite plausibly, the possessor raising construction in Japanese falls under the same general scheme (cf. Baker 1988), lending independent support to my claim that the inalienable *zi*-verb as well as the transitive and unergative types form a uniform syntactic class.

Let us finally turn to the question as to why the unaccusative *zi*-verb cannot have an accusative marker as in (17a), slightly adapted here.

(38) Tatemono-ga zi-kai(\*-o) si-ta.

building-Nom self-collapse(-Acc) do-Past 'The building got collapsed.'

The explanation is straightforward: the *zi*-VN here is unaccusative and is not associated with an accusative Case feature by definition. Thus, the unaccusative *zi*-VN must combine with the light verb *suru* in the lexicon and keep the object position open for its internal argument.<sup>8</sup>

(39) Type B *Zi*-Verb

...[<sub>VP</sub> [<sub>DP</sub> tatemono] zi-kai-suru]

To summarize the discussion so far, I have argued that the *zi*-verb construction comes in two types—the *zi*-VN that undergoes head movement or the one that forms a verbal complex in the lexicon, and that this ultimately depends on whether the VN stem is associated with an accusative Case feature. By focusing on the role played by the light verb *suru* in its interaction with the VN, we arrive at the conclusion different from both T&A's and K&S's: the *zi*-verb construction is either syntactically derived or formed in the lexicon.

#### 4. The Reflexive System in Japanese

We now turn to the question of how the behavior of the *zi*-verb fits into the reflexive system in Japanese. Let us focus on the contrast taken from Takezawa (1991: 67) for the simplex anaphor *zibun*. (See also Aikawa 1993 and Noguchi 1995 for similar cases.)

(40) a. \*Yamada-san-ga zibun-o arat-ta.

Yamada-Mr.-Nom SE-Acc wash-Past 'Mr. Yamada washed himself.'

b. Yamada-san-ga zibun-o seme-ta.

Yamada-Mr.-Nom SE-Acc blame-Past 'Mr. Yamada blamed himself.'

Takezawa claims that this contrast is explained in terms of the notion of affectedness and that *zibun* is allowed only if it occurs as an object of a non-affective verb. If true, Takezawa's observation provides an important clue for the understanding of the rather puzzling behavior of *zibun*, which is generally believed to be a non-locally bound subject-oriented anaphor.

This proposal encounters a problem in cases like the following, however:

(41) a. John-ga zibun-o kizutuke-ta.

John-Nom SE-Acc hurt-Past 'John hurt himself.'

b. John-ga zibun-o yurusi-ta.

John-Nom SE-Acc forgive-Past 'John forgave himself.'

Verbs in these examples denote a change of state and are therefore affective; nevertheless, *zibun*

can be referentially dependent on the subject.

I believe that what is at stake in these cases is some sort of blocking: lexical items stored in the lexicon (informally characterized as idioms) block the combination of units, lexical or phrasal, obtained by the more productive rule. This means that reflexive anaphora is constrained in terms of the general condition of economy and assigns higher priority to lexical units stored in the speaker's mental dictionary. Thus, (40a) is blocked by the object-verb combination *karada-o araw* 'wash one's body.' Ikegami (2006: 168) notes that this applies generally to cases involving body-part nouns.

(42) *karada-o mageru* 'bend oneself (lit. body),' *nodo-o tumaraseru* 'choke oneself (lit. throat),'  
*kubi-o turu* 'hang oneself (lit. neck),' *hige-o soru* 'shave oneself (lit. beard),' *teasi-o nobasu*  
 'stretch oneself (lit. arms and legs)'

The general condition of economy also accounts for the choice among *zi-*, *ziko-*, *zibun*, and *zisin*. For reasons of space, I do not enter into the detailed discussion here, but the general picture should be clear: affixal forms as well as idioms block the use of phrasal combinations based on *zibun* and *zisin* (and the productive use of *ziko-*) in general. Thus, *zi-satu-suru* 'kill oneself' is preferred over *zibun-o korosu* or *zibun-zisin-o korosu* and the form *\*ziko-satu-suru* is not allowed.

(43) Idioms, *zi-* > *ziko-* > *zibun*, *zisin*

Of course, there are apparent counterexamples where some reflexive forms may coexist, but a close scrutiny reveals that those coexisting forms are not really equivalent, as is generally the case with linguistic forms. I will mention only two cases here. Consider (44) first.

(44) a. John-ga zibun-o hihan-si-ta.

John-Nom SE-Acc criticism-do-Past 'John criticized himself.'

b. John-ga [<sub>DP</sub> t<sub>i</sub>] ziko<sub>i</sub>-hihan-si-ta.

(44a) might get the strict identity reading in a relevant context, while (44b) cannot. It is also well known that *zibun* can find its antecedent in a non-local domain. Consider also the two lexical forms *zi-ai* and *ziko-ai*, both translated as 'self-love'; the first can be used in the *zi-*verb construction as in *zi-ai-suru* 'love oneself,' whereas the second cannot.

## 5. Conclusion

In this paper, I have tried to capture some of the basic characteristics exhibited by verbal reflexives in Japanese, as illustrated by the so-called *zi-*verb construction. The data covered here is quite limited, however, and the behavior of verbal reflexives needs to be investigated in more comprehensive contexts, both theoretical and empirical. I will leave this task for future research.

### Notes

\* I would like to thank an anonymous reviewer for helpful comments. All the remaining errors are

of course my own. The research reported here was supported in part by Grants-in-Aid from Japan Society for the Promotion of Science (#22520493).

- 1 See Noguchi (2010) for references on the grammaticalization of reflexive pronouns.
- 2 In what follows, I will cite only some representative works for reasons of space. The reader is referred to K&S for more complete references.
- 3 The variable judgment of (9c) reflects K&S's observation (p. 206) that verbs such as *korobu* 'tumble' and *taoreru* 'fall' can be unergative as well as unaccusative. To my mind, this is a highly marked option and can be safely ignored for our purposes.
- 4 The incorporation analysis of SELF is proposed by R&R (1991), Safir (1996), Anagnostopoulou and Everaert (1999), Reuland (2001, 2011), among others.
- 5 Takezawa suggests that the anaphoric link arises here as a result of coindexing between the subject and the body-part noun, a suggestion which I believe can be safely dismissed on semantic grounds.
- 6 It is orthogonal to our discussion whether the controlled element is a small pro or a big PRO. For our current purposes, any syntactically empty pronominal element suffices.
- 7 Thanks to an anonymous reviewer for bringing my attention to this issue.
- 8 It is likely that the reflexive *zi-* in the unaccusative *zi*-verb is a Case reducer in the sense of Reinhart and Siloni (2005) and as such operates on the verb's  $\theta$ -grid to bundle external and internal arguments.

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