Two Types of Reflexivization in Japanese*

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1   Introduction

Reflexive anaphora has been one of the most controversial topics in anaphora studies. This is especially so because the forms and functions of reflexive pronouns, or reflexive forms in general, vary widely not only cross-linguistically but also intralinguistically, to say nothing of diachronic variations. Reinhart and Siloni (2005) (henceforth, R&S) made an interesting attempt to shed light on the typology of verbs denoting reflexivity: Reflexive verbs and other valency-reduced verbs such as reciprocals and middles are derived either in the lexicon or in the syntax. This is what R&S call the 'lex-syn' (= lexicon-syntax) parameter. In a more recent paper, Marelj and Reuland (2016) (henceforth, M&R) argue that the effects of the parameter must be reduced to the availability of

syntactic clitics. The purpose of this paper is to show that reflexive verb formation in Japanese comes in two types, i.e. lexical and syntactic, and that this supports the general direction that M&R point to.

This paper is organized in the following manner. The general idea will be presented together with some theoretical backgrounds in Section 2. Evidence in support of the claim will be presented in Section 3. Some theoretical implications will be addressed in Section 4. The paper concludes in Section 5.

2   Two Types of Reflexivization

There is a large set of reflexive forms in Japanese, which can be classified according to their provenance, i.e. native forms such as archaic pronominals *ware* and *onore*, and body-part nominals *mi* 'body', *karada* 'body', *mizukara* 'one's own body', and Sino-Japanese forms such as *zibun, zisin, ziko-*, and *zi-*. The native forms mostly form idioms as illustrated in (1).

(1)   a.   Archaic pronominals: **ware**-*o wasureru* 'forget oneself', **ware**-*ni kaeru* 'come to one's senses', **onore**-*o semeru* 'blame oneself', **onore**-*o hitei-suru* 'deny oneself'
      b.   Body-part nominals: **mi**-*o horobosu* 'ruin oneself', **mi**-*o kiyomeru* 'purify oneself', **karada**-*o yasumeru* 'rest oneself', **mizukara**-*o sasageru* 'devote oneself'

See Noguchi (2015) for some discussion of the historical development of the native reflexive forms and their relationship with the Sino-Japanese forms. In this paper, I would like to focus on the Sino-Japanese reflexive forms, and propose that reflexivization is 'distributed' over the grammatical modules—the prefix *zi-* reflexivizes verbs in the lexicon via θ-bundling in the sense of R&S, *ziko-* and *zisin* undergo SELF movement in the syntax (cf. Reuland 2011), operating on the verb's θ-grid at the C-I interface. Thus, while Japanese is a 'lexicon' language under R&S's typology, syntactic reflexivization is still allowed.

Consider the following sentence:[1]

(2)   Taro-ga   **zi**-satu-si-ta.
      Taro-NOM self-kill-do-PST
      'Taro killed himself.'

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[1] Abbreviations in the gloss are as follows: ACC = accusative, C = complementizer, NOM = nominative, PASS = passive, and PST = past. Throughout, *zibun* will be glossed as a SE (simplex expression) anaphor (cf. Reinhart and Reuland 1993), but this is mostly for expository reasons.

Here, the reflexive prefix *zi-* attaches to the verbal noun (= VN) stem *satu* 'kill', which is in turn verbalized by the light verb *suru* 'do'. My claim is that the prefix turns a VN stem into a reflexive one and that this is on a par with cases such as those in English in (3), which R&S have argued undergo 'reflexivization bundling' as formulated in (4).

(3)   a.   John washed.
      b.   John shaved.
(4)   *Reflexivization bundling*
     $[\theta_i] [\theta_j] \rightarrow [\theta_i - \theta_j]$, where θ_i is an external argument. (R&S: 400)

The two-place entry of the verb *wash* in (5a) undergoes the operation to give rise to a syntactic output in (5b). In effect, the verb becomes intransitivized by this operation.

(5)   a.   Verb entry: *wash*$_{acc}$[Agent][Theme]
      b.   Reflexivization output: *wash*[Agent-Theme]
      c.   Syntactic output: Max$_{[Agent-Theme]}$ washed. (R&S: 401)

The syntactic output in (5c) is interpreted as in (6a), which R&S take to be equivalent to (6b), where the composite θ-role is interpreted distributively.

(6)   a.   ∃e [wash(e) & [Agent-Theme](e, Max)]
      b.   ∃e [wash(e) & Agent(e, Max) & Theme(e, Max)] (R&S: 401)

    The Japanese sentence in (2) is similar: Its syntactic output, given in (7a), is interpreted as in (7b).

(7)   a.   Taro$_{[Agent-Theme]}$-ga **zi**-satu-si-ta.
      b.   ∃e [kill(e) & Agent(e, Taro) & Theme(e, Taro)]

Here, the sole argument *Taro* is interpreted as an Agent and a Theme at the same time.
    Let us now turn to *ziko* and *zisin*. In Noguchi (2005), I argued that *ziko* reflexivizes a predicate in the overt syntax whereas *zisin* does so in the covert syntax. Since there are cases where *ziko* can stand on its own in the overt syntax, I slightly modified the proposal in Noguchi (2016): While *ziko* reflexivizes a predicate either in the overt or the covert syntax, *zisin* does so only in the covert syntax. What is relevant to our current discussion is that neither *ziko* nor *zisin* undergoes reflexivization bundling, and is more appropriately characterized as a predicate modifier.

(8) a. Taro-ga   zibun-~~ziko~~-o **ziko**-hihan-si-ta. (overt syntax)
         Taro-NOM SE-self-ACC   self-criticize-do-PST
         'Taro criticized himself.'
     b. Taro-ga zibun-**zisin**-o hihan-si-ta. (overt syntax)
         => Taro-ga zibun-~~zisin~~-o **zisin**-hihan-si-ta. (covert syntax)
         => ∃e [criticize(e) & Agent(e, Taro) & Theme(e, Taro) & <u>Taro =</u>
         <u>zibun</u>]

These sentences are semantically equivalent, which is captured by the assumption that both *ziko* and *zisin* form a complex predicate with a verb stem at the C-I interface and add an identity restriction to the latter, as indicated by the underlined part of the last line of (8b). Note that (8a) indicates that *zibun* and *ziko* contribute to the semantics independently, i.e. as an anaphor and as a reflexive-marker, respectively. This suggests that syntactic reflexivization should not be limited to anaphor binding, contra the claim made by Doron and Rappaport Hovav (2007). I will return to this point in Section 4.

3   Some Empirical Evidence

Let us now turn to some empirical evidence to support the proposal outlined in Section 2.

3.1   Case Reduction

R&S argue that lexical reflexivization is accompanied by the accusative Case reduction of the verb, as we have already seen in the reflexivization output in (5b), where the verb is no longer associated with the 'acc' diacritic. This is also true with the *zi*-verb construction in (2), which does not allow an accusative-marked object, as in (9).

(9) *Taro-ga   zibun-o **zi**-satu-si-ta.
      Taro-NOM SE-ACC self-kill-do-PST
      'Taro killed himself.'

This is in contrast to *ziko* and *zisin*, which do allow an accusative-marked object as we saw in (8). This contrast supports the idea that lexical reflexivization in Japanese is derived by reflexivization bundling, whereas *ziko* and *zisin* reflexivize a predicate in a different manner.[2]

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[2] Note that there are cases in which *zi-* does not reflexivize a predicate, in which case it does not reduce the accusative Case either. This effect is illustrated by the inalienable *zi*-verb construction as in (ia) and the unaacusative *zi*-verb construction as in (ib) (cf. Tsujimura and Aikawa 1999, Kishida and Sato 2012).

3.2   *Zibun* vs. *ziko*

A second piece of evidence for the current proposal is the fact that *zibun* can be associated with any grammatical function, while *ziko* is essentially limited to the object position.[3]

(10) a.   Taro-ga   **zibun**-o/**ziko**-o   hihan-si-ta.
            Taro-NOM SE-ACC/self-ACC criticize-do-PST
            'Taro criticized himself.'
      b.   Taro-ga   [**zibun**-ga/***ziko**-ga hihan-s-are-ta-to]   omot-ta.
            Taro-NOM SE-NOM /self-NOM criticize-do-PASS-PST-C think-PST
            'Taro thought that he was criticized.'

The same remark applies to the ECM subject position.

(11) Taro-ga   [**zibun**-o/***ziko**-o kasikoku] omot-ta.
      Taro-Nom SE-ACC/self-ACC smart   think-PST
      'Taro considered himself smart.'

This contrast follows from the claim that *ziko* undergoes head movement to a predicate in the overt or covert syntax, which is allowed in (10a), but not in (10b) and (11), under the standard assumption that head movement is available only from the complement position but not from the specifier position (the Head Movement Constraint of Travis 1984).

(i) a.   Taro-ga   musuko-o **zi**-man-si-ta.
            Taro-NOM son-ACC   self-boast-do-PST
            'Taro boasted about his son.'
      b.   Tatemono-ga **zi**-kai-si-ta.
            building-NOM self-collapse-do-PST
            'The building collapsed.'

Although this in itself does not pose a problem for the current proposal, it is certainly necessary to make clear why the same morpheme has the range of valency changing effects that it does. See Faltz (1985), Kemmer (1993), and Noguchi (2014) for some discussion.
[3] This characterization glosses over the fact that there are cases where *ziko* can occur in the subject position.

(i) Taro-wa [**ziko**-ga hitei-s-are-ta-to]   kanzi-ta.
     Taro-Top self-NOM deny-do-PASS-PST-C feel-PST
     'Taro felt that his identiy was denied.'

This use of *ziko* arises because *ziko* is a SELF form and as such may denote a proxy of its referent, here Taro's identity. Note that this is not identical to the reflexive use at issue in the main text. See Noguchi (2016) and Section 3.4 below for further discussion.

One might naturally expect that *zisin* does not appear in the subject position like *ziko*. This is not the case, however.

(12) a. Taro-ga [zibun-**zisin**-ga hihan-s-are-ta-to]   omot-ta.
     Taro-NOM SE-self-NOM   criticize-do-PASS-PST-C think-PST
     'Taro thinks that he himself was criticized.'
   b. Taro-ga [zibun-**zisin**-o kasikoku] omot-ta.
     Taro-NOM SE-self-ACC   smart   think-PST
     'Taro considered himself smart.'

If *zisin* always has to undergo head movement to a higher predicate, these examples are expected not to be allowed, contrary to fact. I believe that *zisin* in this context is not reflexive but emphatic, and as such is immune to syntactic conditions on head movement: The emphatic *zisin* does not move and is interpreted in situ. Note that English reflexive pronouns can be used as adjuncts (i.e. adverbially or adnominally), as extensively discussed by König and Siemund (2000).

(13) a. I have swept this court **myself**. (König and Siemund 2000: 44)
   b. He **himself** is not in favor of it. (König and Siemund 2000: 52)

Suppose that *zisin* is a Japanese counterpart of the English *self*. Then it is not in fact surprising that it has the range of interpretations that are associated with the latter. See Noguchi (2018) for a discussion along these lines.

3.3 *Zibun* vs. *zisin*

It is well known that a strict locality condition is imposed on *zibun-zisin*, but not on *zibun* (cf. Katada 1991).

(14) Taro$_i$-ga [Ziro$_j$-ga   **zibun**$_{i/j}$-o/**zibun-zisin**$_{*i/j}$-o bengo-si-ta-to]
   Taro-NOM Ziro-NOM SE-ACC/SE-self-ACC   defend-do-PST-C
   omot-ta.
   think-PST
   'Taro thought that Jiro defended him/himself.'

This contrast naturally follows from the claim that *zisin* undergoes head movement to a predicate in the covert syntax: It only reflexivizes the closest head that it incorporates to, i.e. the embedded predicate, and reflexivity has to be satisfied within the co-argument domain.

3.4   The Proxy Reading

It has been well known since Jackendoff (1992) that reflexive pronouns can be associated with the so-called 'proxy' reading. (See also Lidz 2001, Safir 2004, Labelle 2008, Reuland 2011, Rooryck and Vanden Wyngaerd 2011, M&R, among others.) Thus, the sentence in (15) from Jackendoff (1992) is ambiguous between a reflexive reading and a proxy reading, with the latter being available typically in a wax museum context.

(15)   All of a sudden Ringo started undressing himself.

<div align="right">(Jackendoff 1992: 4)</div>

That is, under the proxy reading, Ringo started to take clothes off his statue. As Safir (2004) and Reuland (2011) have shown, this is a general property of anaphoric pronouns, i.e. not only reflexive pronouns as in (16a) but also bound pronouns as in (16b).

(16)   a.   Grisham will be reading **himself** in Swahili soon.

<div align="right">(Safir 2004: 113)</div>

      b.   All of a sudden, every pop icon started taking off the shirt **he** was wearing. (Reuland 2011: 220)

See Reuland (2011: 219-222), who argues that the proxy reading arises when a pronoun denotes a Skolem function.

    When we turn to Japanese, it is *zibun* but not *ziko* or *zisin* that allows a proxy reading.

(17)   a.   Taro-ga   **zibun**-o migai-ta. (reflexive/proxy)
           Taro-NOM SE-ACC polish-PST
           'Taro-Nom polished himself/his statue.'
      b.   Taro-ga   zibun-**zisin**-o/**ziko**-o migai-ta. (reflexive only)
           Taro-NOM SE-self-ACC/self-ACC polish-PST
           'Taro polished himself.'

This contrast also follows from the claim that *ziko* and *zisin* behave as a predicate modifier at the relevant semantic level—they only manipulate the argument structure of a predicate that they attach to by adding an identity restriction on it. In contrast, *zibun* is an anaphoric pronoun and as such can be associated with a proxy reading.

3.5   Sloppy and Strict Readings

In contrast to the English reflexive pronoun *himself*, which allows both sloppy and strict identity readings, the Dutch reflexive pronoun *zich* only allows a sloppy identity reading (cf. Sells et al. 1987).

(18) a. John defends **himself** better than Peter. (sloppy/strict)

(Sells et al. 1987: 175)

   b. Zij verdedigde **zich** beter dan Peter. (sloppy only)
       she defended SE   better than Peter
       'She defended herself better than Peter.' (Sells et al. 1987: 182)

The same contrast is also found in Japanese: While *zibun* allows both sloppy and strict identity readings, *ziko* and *zisin* only allow a sloppy identity reading.[4]

(19) a. Taro-ga   Ziro-yorimo umaku **zibun**-o bengo-si-ta.

(sloppy/strict)

       Taro-NOM Ziro-than   better SE-ACC defend-do-PST
   b. Taro-ga   Ziro-yorimo umaku zibun-**zisin**-o bengo-si-ta.

(sloppy only)

       Taro-NOM Ziro-than   better SE-self-ACC defend-do-PST
   c. Taro-ga   Ziro-yorimo umaku **ziko**-bengo-si-ta. (sloppy/strict)
       Taro-NOM Ziro-than   better self-defend-do-PST
       'Taro defended himself better than Jiro.'

This contrast follows from the current proposal because *zisin* and *ziko* only behave as predicate modifiers (modulo the emphatic use of *zisin*) and as such their reflexive interpretation is confined to a local domain. *Zibun*, on the other hand, is an anaphoric pronoun and can have a range of interpretations that are associated with that category in general.[5]

   The lack of a strict identity reading with *ziko* and *zisin* seems to be correlated with the lack of a proxy reading with the same items. If our claim is on the right track, this is not accidental and follows from their behavior as predicate modifiers, which in turn follows from their syntactic status as heads which undergo head movement.

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[4] See Kishida (2011), who made a similar observation regarding *zibun* and *ziko* (but not *zisin*).
[5] This does not of course exclude the logophoric use of *zibun* (cf. Kuno 1972, 1987, Sells 1987, Nishigauchi 2014).

   See M&R for a recent discussion of the interpretation associated with Dutch *zich*. They suggest (p. 227) that the strict identity reading is not possible with *zich*, because it requires focalization, which is not available with *zich* in the first place.

4   Theoretical Implications

The discussion in this paper has shown that Japanese is a language in which reflexivization is 'distributed' over the entire grammatical modules. This has a number of significant theoretical consequences. Perhaps, one of the most prominent is concerned with the general notion of reflexivization, since it has become clear that the effect of reflexivization cannot be reduced to a syntactic mechanism of Agree or Move (cf. Hornstein 2001, Heinat 2008, Kayne 2008, Rooryck and Vanden Wyngaerd 2011). This issue deserves a more in-depth treatment than can be accorded here, however, and will be left for another occasion.

Here, let us consider the status of R&S's lex-syn parameter.

(20) *The lex-syn parameter*
      Universal grammar allows thematic arity operations to apply in the
      lexicon or in the syntax. (R&S: 391)

R&S (p. 408) suggest the following partial typology:

(21) Lexicon setting: Hebrew, Dutch, English, Russian, Hungarian
      Syntax setting: Romance, German, Serbo-Croatian, Czech, Greek

As M&R have noted, however, this parameter has a 'global' character and has to be derived from some independently motivated grammatical properties. M&R's proposal is that it should be derived from the option of having syntactic clitics: The 'syntax' languages have syntactic clitics, while the 'lexicon' languages do not. When we turn to Japanese, this is a language with no syntactic clitics, at least in the sense relevant here. Thus, it is quite natural that the language is a 'lexicon' language in the sense of R&S and has lexical reflexivization. This does not prevent the language from reflexivizing predicates in the syntax, however, since predicate modification via head movement is not the same as bundling. Thus, Japanese is a language that makes full use of grammatical resources available to reflexivize predicates.

Note that the result runs counter to Doron and Rappaport Hovav's (2007) claim that syntactic reflexivization is anaphor binding. Syntactic reflexivization might effect anaphor binding, but it can enter into predicate modification at the relevant semantic level as well (cf. Section 2). Reflexive anaphora facts in Japanese show clearly that reflexive anaphora is a phenomenon that needs to be captured in a modular manner (cf. Reuland 2011).

5   Conclusion

This paper has discussed reflexive anaphora in Japanese, and has shown (i) that the reflexivizing function is distriburted over the grammatical modules in Japanese: reflexivization bundling by *zi-* in the lexicon and SELF movement of *ziko* and *zisin* in the syntax, and (ii) that syntactic reflexivization in Japanese is not bundling nor limited to anaphor binding, but arises typically in the form of SELF movement, which gives rise to predicate modification at the C-I interface.

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