Some Notes on the Grammaticalization of Reflexive Pronouns

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１．Introduction

The mechanism by which anaphoric expressions are interpreted has been one of the central concerns in linguistic theory, and there is no doubt that Chomsky's (1981) Binding Theory and Reinhart and Reuland's (1991, 1993) (henceforth R&R's) version in terms of the notion of "reflexivity" among many others have been instrumental in the development of a theory of anaphora.

Although these researchers have been successful in bringing anaphora into the forefront in linguistic theorizing, I argued in Noguchi (2005) that there are a significant number of problems for a theory of anaphora based on Binding Conditions, especially Condition A. The purpose of the present study is to clarify some of the issues and to lend further support to the idea developed there. The major goal is to show that the idea developed in the paper—reflexive anaphora should not be captured in terms of the Binding Theory but in terms of independently motivated syntactic and semantic mechanisms—is supported on both synchronic and diachronic grounds, especially in view of grammaticalization of reflexive pronouns.

The paper is organized in the following manner. Section 2 is a brief summary of the proposal made in Noguchi (2005). I will make preliminary remarks on grammaticalization of reflexive pronouns and suggest a hypothesis concerning the relation between grammaticalization and reflexivization in Section 3. The hypothesis will be developed in Sections 4 and 5, where the diachronic aspects of reflexive pronouns in English and the reflexive system in Japanese will be examined. The paper concludes in Section 6.

２．Reflexivization at LF

The basic idea proposed by Noguchi (2005) is to extend Chung and Ladusaw's (2004) (henceforth C&L's) analysis of indefinite DPs into reflexive anaphora. C&L argue that indefinite DPs such as *a dog* in (1) compose with the predicate in two different manners, i.e. either via the nonsaturating mode of "Restrict" or the saturating mode of "Specify."

(1) John fed a dog.

According to the first option, the DP, being a predicate of type $\langle e,t \rangle$, is interpreted as a predicate modifier and composes with the verb without saturating any of the verb's argument positions. Thus, (1) is translated into the formula in (2a), and applying λ-conversion and

existential closure yields a representation like (2b) (C&L, p. 5).

(2)　a．$\lambda y \lambda x[\text{feed}'(y)(x) \wedge \text{dog}'(y)]$

　　b．$\exists y[\text{feed}'(y)(j) \wedge \text{dog}'(y)]$

(2b) says that there is an individual y such that it is fed by John and it is a dog.

The other way of interpreting the DP is to invoke type-shifting in the sense of Partee (1986), whereby the semantic type of an expression can be shifted into an appropriate one. C&L formulate it in terms of a choice function that takes a property-denoting expression and maps it into an entity that has that property. Reinhart (1997: 372) defines choice function as follows:

(3) A function f is a choice function (CH (f)) if it applies to any non-empty set and yields a member of that set.

Once a choice function applies to a property-denoting expression and yields an entity, the composition proceeds in the usual manner. Thus, (1) is represented as in (4) under this mode of semantic composition.
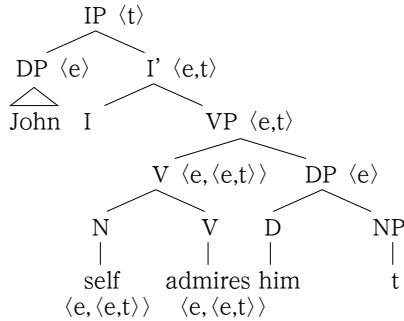
(4) $\exists f[\text{feed}'(f(\text{dog}'))(j)]$

Here, the use of a choice function is represented by a function variable, which is existentially closed. The formula represents the proposition that there is a choice function f such that the dog it picks is fed by John.

The proposal in Noguchi (2005) is that reflexive anaphors like English *himself* are interpreted in three different ways. First, the N head *self* might incorporate into the verb overtly or covertly (cf. R&R 1991 among others) and compose semantically with the predicate via the mode of Restrict, imposing an identity condition on the latter. Second, the DP as a whole might compose with a predicate via the mode of Specify. Third, the entire anaphor might be construed as an argument that enters into a chain with its antecedent (cf. R&R 1993, Reuland 2001). The first option corresponds to the core case of co-argument anaphora, whereas the second and third to the non-co-argument anaphora cases involving ECM/raising verbs and logophoricity. In what follows, I will focus on the core case, postponing the discussion of the other cases in future work. See Noguchi (2005) for a preliminary discussion.

The movement analysis of complex anaphors involves a head movement of *self*, with the pronominal element being left behind. Since the syntactic operation splits the DP argument into two parts, N and D, I called reflexivization in this configuration "N-D split reflexivization (= NDSR)."

(5) N-D Split Reflexivization

```
                    IP ⟨t⟩
                  /      \
           DP ⟨e⟩         I' ⟨e,t⟩
            /\            /      \
         John   I      VP ⟨e,t⟩
                      /        \
              V ⟨e,⟨e,t⟩⟩       DP ⟨e⟩
               /      \         /    \
              N        V       D      NP
              |        |       |      |
            self   admires    him     t
          ⟨e,⟨e,t⟩⟩  ⟨e,⟨e,t⟩⟩
```

The morpheme *self* is a relational expression of type ⟨e,⟨e,t⟩⟩ (cf. Pica 1987, Keenan 1988) and behaves as a modifier of the verb *admires*. In this configuration, the reflexive morpheme and the pronominal remnant not only occupy distinct syntactic positions but behave as distinct semantic units as well—by behaving as a restrictive modifier in the case of the former and by behaving as an argument of the complex verb in the case of the latter. Since the pronoun saturates one of the argument positions of the composed predicate, the derivation completes without closing the formula by means of existential closure.

Notice that the composition of *self* with a predicate as in (5) is essentially a semantic operation and is independent of syntactic binding. This leads to the following prediction:

(6) Reflexive anaphora is possible without coindexing.

To support this prediction, I presented empirical evidence from a broad range of reflexive morphemes in Japanese including *zisin*, *ziko-*, *zi-* and *self*-compounds in English. I will discuss the relation between grammaticalization and reflexive anaphora in what follows and argue that LF reflexivization is one of the key factors relating the two phenomena.

3．Grammaticalization

One type of historical change involving reflexive markers is concerned with the reduction of a predicate's adicity, which is typically accompanied by phonological attrition of a pronominal element and morphosyntactic change from word to affix. This type is illustrated by the Old Norse reflexive pronoun *sik* and its affixal counterpart *–sk* (Hopper and Traugott 1993: 151).

(7) a．Hann bauþ sik. 'He offered himself.'

b．Hann bauzk. 'He offered-himself.'

The form *bauzk* is derived from *bauþ sik* and its ending is pronounced [tsk] as a result of phonological assimilation. The vestige of the ending is still seen in some passive, middle and reciprocal verb forms in Danish, although the morpheme seems to have lost its reflexive function (cf. Hopper and Traugott 1993, Kemmer 1993).

The type of historical change in Old Norse should not be treated on a par with NDSR

summarized in Section 2, however. This is because the reflexive morphemes *sik* and its affixal counterpart *–sk* are monomorphemes whose historical descendants include Icelandic *sig* and Norwegian *seg*. As pointed out by Faltz (1977), the interpretive range of monomorphemic reflexives and that of complex reflexives are sharply distinguished, especially with respect to locality, subject orientation, and so on. (See also Pica 1987, R&R 1991, among others.) The situation in (7) is therefore comparable to that in Romance languages, where French reflexive *se* cliticizes to a verb.

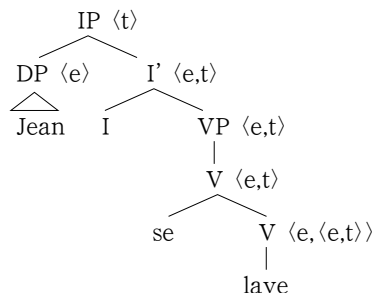(8) Jean se lave.

Jean SE washes 'Jean washes.'

Thus, I argue that there are two ways of reflexivizing a predicate—one by predicate modification by means of an identity condition SELF and the other by lexicalizing an identity meaning within the predicate. Since this latter function is often carried out by a simplex expression anaphor, I will follow R&R and call it SE in contrast to SELF whose semantic effect is triggered by NDSR.

(9) a. SELF: $\lambda x \lambda y[P(x,y) \wedge x=y]$

    b. SE: $\lambda x[P(x,x)]$

In effect, the monomorphemic reflexive turns a two-place predicate into a one-place predicate, the point supported by the fact that verbs with the reflexive clitic *se* behave as intransitive verbs (cf. Kayne 1975).[1] Semantically, (9a) and (9b) are equivalent. Syntactically, however, (9a) is based on a transitive verb phrase as in the case of NDSR (5), while the representation (9b) derives from an intransitive verb phrase.

(10)

$$\text{IP } \langle t \rangle$$

$$\text{DP } \langle e \rangle \qquad \text{I' } \langle e,t \rangle$$

$$\text{Jean} \qquad \text{I} \qquad \text{VP } \langle e,t \rangle$$

$$\text{V } \langle e,t \rangle$$

$$\text{se} \qquad \text{V } \langle e, \langle e,t \rangle \rangle$$

$$\text{lave}$$

In a sense, what (9) tries to capture is the fact that there are two ways of achieving reflexivity, either by retaining transitivity or by reducing the adicity by one through the process of lexicalization.

In general, as Faltz (1977) has shown, both compound reflexives and monomorphemic reflexives tend to become grammaticalized by going through the stages as depicted in (11), adapted from Faltz (1977: 276) for our present purposes.

(11) a. NP-emphatics/Lexical Ns → SELF → Verbal reflexives → Middle → Lexical items

    b. Stressed pronouns/First person singular → Subordinate reflexives → SE → Verbal reflexives → Middle → Lexical items

Some aspects of this picture will be examined below. What is of immediate concern is that both SELF and SE may become part of verbal reflexives before becoming lexicalized. The following examples from Reinhart and Siloni (2005) might illustrate this last stage:

(12) ａ．John washed.

　　 ｂ．Dan hitraxec. (Hebrew)

　　　　Dan washed (Refl)

Although the middle verbs need to be carefully distinguished (cf. Kemmer 1993), the two types of development in (11) can be seen as the grammaticalization of the two interpretive mechanisms in (9). I hypothesize that the representations in (5) and (10) serve as templates that reflexive markers aim at. This is to reduce the syntax-semantics mismatch as much as possible, by achieving a closer affinity between the two modules, i.e. by creating lexical items whose internal structures parallel those in (5) and (10). This, I believe, is the driving force behind the grammaticalization mechanism envisaged by Faltz.

４．Old and Middle English

４.１．Van Gelderen (2000)

As we saw in (11a), Faltz (1977) suggests that there are two possible sources for compound reflexives whose head is SELF, i.e. emphatics and lexical Ns (typically body-part Ns). The former possibility has been amply documented in the literature on the development of English reflexive pronouns. In what follows, I will examine the proposal made by Van Gelderen (2000) (henceforth VG).

As is well-known, personal pronouns in Old English function as reflexive pronouns, whereas "[s]ubsequent to Old English, the pronoun is 'reinforced' with *self*, which already occurs in Old English in the form of an emphatic pronoun" (VG, p. 29). To illustrate the reflexive use of personal pronouns, consider the following examples from *Beowulf* (VG, p. 36):

(13) Reste hine þa rumheort. (Beo 1799)

　　 rested him the big-heart 'The big-hearted one rested himself.'

(14) ac he hyne gewyrpte. (Beo 2976)

　　 but he him recovered 'but he recovered himself.'

In fact, this type of use continues to the present day, as in the following examples:

(15) ａ．John$_i$ bought him$_i$ a new car.

　　 ｂ．John$_i$ saw a snake near him$_i$.

　　 ｃ．You should bring an umbrella with you.

The reflexive use of personal pronouns in Modern English is limited to adjuncts, however, while there is no such restriction in Old English (and to some extent, in Middle English as well).

The period in which most significant changes concerning the morpheme *self* occur is the

Middle English period. Those changes are summarized in (16).

(16) a. The syntactic category changes from Adj to N.

    b. The main function changes from emphatic to reflexive.

    c. *Self* starts to lose its independent status and merge with a pronoun.

    d. The pronoun + *self* combination is introduced into the oblique position first and gradually starts to occupy the direct object position.

Regarding the categorial status of *self* in (16a), consider the following example in Old English (VG, p. 39):

(17) þæt he hyne   sylfne   gewræc (Beo 2875)

    that he him-Acc self-Acc avenged 'He avenged himself.'

As an adjective, *sylfne* in (17) agrees in Case, number and gender with the pronoun *hyne*. In the Middle English period, adjectives in general start to lose their inflectional endings and VG (p. 64) suggests that this contributes to the change in the categorial status of *self* in the 13th century.

The reduction of the emphatic function of *self* is illustrated by the fact that the two texts of Layamon's *Brut*, i.e. the early version *Caligula* from around 1205 and the later version *Otho* from around 1250, differ in the use of *self*: while *self* might be used as an emphatic in *Caligula*, in some instances it disappears in *Otho* as in (18) or forms a compound pronominal as in (19) (VG, p. 65).

(18) a. ˥ he seolf him wolden specken wið (Caligula 5466)

    'and he himself wanted to speak with him.'

    b. he wolde come and speke him wiþ (Otho 5466)

(19) a. þu seolf wurð al hisund (Caligula 1594)

    'you yourself be healthy.'

    b. þou þi-seolf far hol and (sunde). (Otho 1594)

The function of the compound form in (19b) seems to be equivalent to that of Modern English, as suggested by the translation in (19a).

The examples in (19) also illustrate the change noted in (16c): the loss of an independent status of *self* with a concomitant merger with a pronoun. But note that the merger of *self* with a pronoun seems to have already been underway when the early version of *Brut* was written. VG (p. 67) notes that each of *miseolf, himseolf* and *himsuluen* has a single occurrence in Caligula, "whereas in earlier works, there were no such forms."[2] The compound form is, according to VG, a result of reanalysis of the category of *self* from Adj to N and of reanalysis of the pronoun's function as a possessor.[3]

Finally, the point in (16d) is demonstrated by the fact noted by VG (p. 63) that especially in *Gawain and the Green Knight*, which was written in the mid-14th century, "the reflexive is reinforced with 'self' in the oblique position first, not in the direct object one." As the following examples indicate, personal pronouns continue to be used reflexively in the direct object position, whereas in the oblique position, one finds the pronoun + *self* combination although its occurrences are not many. One of such instances is illustrated by (20b) as compared with (20a)

(VG, pp. 79-80).

(20) ａ．I pyned me parauenture. (Gawain 1009)

　　　　'I troubled myself perhaps.'

　　ｂ．Bot to take þe　toruayle　to myself to trwluf　　expoun. (Gawain 1540)

　　　　But to take the hard-task to myself to true-love expound

　　　　'But to take on the task of interpreting true love.'

The proposal pursued by VG to account for this situation is rather intricate. To summarize briefly, the idea is couched in minimalist terms and she argues that the change from personal pronouns to *self*-compounds is attributed to the loss of inherent Case systems in Old English and the acquisition of structural Case systems in later periods. Inherent Case is thematically induced and therefore has interpretable features. For VG, such items do not incur a violation of the Chain Condition as proposed by R&R (1993: 696).

(21) General Condition on A-chains

　　A maximal A-chain ($\alpha_1,\cdots,\alpha_n$) contains exactly one link— α_1—that is both +R and Case-marked.

The referential feature [+R] denotes referential independence and is defined as having "a full specification of φ-features and structural Case" (R&R 1993: 697). VG (p. 15) suggests that "inherently Case marked elements are not referential for purposes of binding" and that "only by being checked, i.e., as I argue, by having Uninterpretable features, can an element function referentially." The well-formedness of (20a) and similar examples thus follows straightforwardly: the pronoun is inherently Case marked and as such does not induce the Chain Condition violation. (See Reuland and Reinhart 1995 for similar cases in Frisian.) The reason why *self*-marked pronouns occur only in oblique positions is less straightforward, however. VG (p. 108) argues that since there is some uncertainty about the Case of the pronominal part in first and second person, as suggested by forms such as *me sulfne* in Caligula version of *Brut* and *mi-seolue* in Otho version, the pronoun + *self* combination can only appear in a position where non-structural Cases can be checked, e.g. in the object of prepositions.

　For third person reflexives, VG suggests a different story. In brief, she suggests that third person pronouns start to become associated with uninterpretable features and check structural Case earlier than first and second person pronouns whose features still remain interprepretable in Middle English. VG suggests that this is due to the deictic nature of third person pronouns which triggers the categorial change from N to D in Late Old English, accompanied by the reanalysis of adjective *self* as a noun. She argues that this is why third person pronouns cease to function reflexively earlier than first and second person pronouns.

4.2. An Alternative

What I think is crucial to the issue is the fact noted in (16d) that the pronoun + *self* combination

is introduced into the oblique position first and gradually starts to occupy the direct object position. While I agree with VG's claim that the phenomena in question are essentially syntactic, I do not consider her approach fully adequate, however. (See also footnote 3 for Keenan's 2002 proposal.)

First, I find VG's suggestion somewhat dubious that first and second person pronouns in Old and Middle English are Ns while third person ones are Ds. Despite the person split mentioned above, English personal pronouns at any historical stage constitute a closed class and are associated with inflectional paradigms. Personal pronouns in N are not characterized in that manner, as discussed by Noguchi (1997), who contrasts Japanese pronouns (Ns) with English ones (Ds) and draws a variety of facts including the fact that English personal pronouns but not Japanese ones can be construed as bound variables. Note that personal pronouns in Old English function as bound variables, as the following example from Kiparsky (2002: 204) testifies:

(22) þætte nænig biscopa hine oðrum   forbære (Bede 5.278.27)

    that   no   bishop him others-Dat advance-Subj-3P

    'that no bishop shall put himself above others'

Thus, it is plausible to regard personal pronouns in Old English (and at any stage of English, for that matter) as functional items, quite likely Ds.
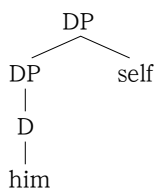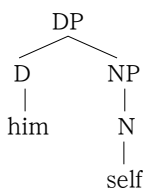
Second, VG tries to attribute the person split to the deictic nature of third person pronouns: as such, third person pronouns are parallel to determiners and demonstrative pronouns. This point is not substantiated, however. Deitic expressions are defined as items whose interpretation is crucially determined in terms of the context of utterance. Thus, first and second person pronouns are deitic expressions par excellence and if third person pronouns are deictic, then first and second ones must be as well.

What I think is crucial is the point (16a), i.e. the fact that the syntactic category of *self* changes from Adj to N in Middle English. Since *self* is an adjective in Old English, it only occurs in an adjoined position, i.e. either VP or DP adjoined position. Therefore, the fact that it has an independent syntactic status and functions as emphatic pronouns can be captured in approximately the same manner as in the following examples in Modern English:

(23) ａ．John himself did it. (DP adjunct)

    ｂ．John did it himself. (VP adjunct)

The fact that the pronoun + *self* combination is introduced first into the oblique position is also crucially related to the categorial status of *self*. Although the precise syntactic representation remains to be worked out, I assume that the compound reflexive has two types in Middle English, depending on the function of *self*.

(24) a．Middle English Emphatic *self*　　　b．Middle English Reflexive *self*

```
            DP                                        DP
          /    \                                    /    \
       DP       self                             D        NP
        |                                        |         |
        D                                       him        N
        |                                                  |
       him                                               self
```

(24a) is a grammatical reflex of the Old English emphatic *self*; a parallel structure would be associated with focus particles such as *only, even* and *also* in Modern English.　(24b) is the result of the category change of *self* from Adj to N, as suggested by VG.　The hypothesis is that the reflexive structure (24b) gradually starts to occur in the complement position where the morpheme *self* reflexivizes the predicate at LF in the manner outlined in Section 2, while the emphatic structure continues to occur in the oblique position where there is no need to reflexivize a predicate.　When the structure in (24b) generalizes to the first and second person forms, it is reanalyzed as a possessive pronoun + NP structure, which accounts for why the later development of first and second person forms have genitive pronouns as in *myself* and *yourself*. The dual possibility of the compound form in Middle English is also held responsible for the fact that the expression occurs in a wide variety of syntactic contexts, including the subject position as well as the direct object position, as illustrated by the following examples from Chaucer (VG, p. 88):

(25) a．Sith I so loth was that thiself it wiste. (Troilus and Criseyde Bk 3, 369)

　　　'Since I was so reluctant that you would know it.'

　　b．If thou lovest thyself, thou lovest thy wyf. (Merchant's Tale 1385)

　　　'If you love yourself, you love your wife also.'

Roughly speaking, the pronoun + *self* compounds in Middle English represent a transitional stage between Old English where *self* occurs as an independent word and functions emphatically between Modern English where the reflexive structure as represented in (24b) is stabilized and takes over the emphatic function as well.

　To summarize the discussion in this section, the development of reflexive pronouns in English can be analyzed as a process where *self* gradually comes to occupy the N head position and to become the target of reflexivization at LF.　This development is crucially tied to the status of *self* either as an adjunct or a head.　Thus, the development of complex reflexives as envisaged by Faltz (1977) in (11a) above can be regarded as a process of forming lexical reflexives whose representation is parallel to the NDSR structure we saw in Section 2.

5．Japanese Reflexives

5.1．Verbal Reflexives and Emphatics

In order to provide empirical support for the claim made in (6)—reflexive anaphora is possible without coindexing, I presented some empirical evidence from Japanese involving reflexive markers such as *ziko* and *zisin* in Noguchi (2005). The basic idea is that once reflexive anaphora is freed from the coindexing requirement, it becomes possible to capture NP reflexives and verbal reflexives in Japanese like (26) and (27) in a uniform manner, i.e. by reflexivization at LF via predicate restriction.

(26) a．John$_i$-ga　kare-zisin$_i$-o sonkeisi-teiru. (Overt syntax)

John-Nom he-self-Acc　respect-Pres 'John respects himself.'

b． John-ga [$_{DP}$ [$_{NP}$ [$_{DP}$ kare] [$_N$ t$_i$]]]-o zisin$_i$-sonkeisi-teiru. (LF)

(27) a．John$_i$-ga　kare$_i$-o ziko-hihansi-ta. (Overt syntax)

John-Nom he-Acc self-criticize-Past 'John criticized himself.'

b． John-ga [$_{DP}$ [$_{NP}$ [$_{DP}$ kare] [$_N$ t$_i$]]]-o ziko$_i$-hihansi-ta. (LF)

Thus, while *zisin* reflexivizes a predicate in the covert component, *ziko*- does so overtly. Based on this observation, I made the following claim:

(28)　Reflexivity is independent of binding.

This is so because reflexivization at LF is a kind of predicate modification and as such does not necessitate the notion of binding which is defined in terms of coindexing.

While this approach neatly captures the parallelism between *zisin* and *ziko*-, I now believe that it has to be modified somewhat. The problem has to do with the structure of *kare–zisin* in (26b) and its *ziko*– counterpart in (27b). In these structures, the reflexive marker occupies the N head position underlyingly, with the pronoun sitting in its complement. After the movement of the reflexive, the pronoun remains in the same position, while the N head position is occupied by the trace of the reflexive. Since the pronoun part is not construed as the head of the entire DP, the interpretive procedure cannot go through in a compositional manner.

The proposal I would like to develop here is to invoke the emphatic reflexive structure in Middle English we saw in (24a). The compound form in Japanese would then be like (29).[4]

(29) Japanese Compound Reflexive

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          DP
        ⟋   ⟍
     DP      zisin
     △
    kare
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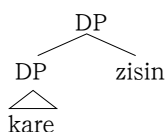
The compound form in (26a) would be interpreted as an emphatic (or focus) noun phrase rather than as a reflexive pronoun: informally, the basic function of *zisin* is to limit the entities in the

domain of discourse to a coreferential one; thus, (26a) would be more appropriately translated as 'It is none other than himself that John respects.' It is therefore not surprising that a single morphological form can serve two functions across languages. (See König and Siemund 1999 for further discussion.)

This proposal is supported on empirical grounds as well. First, just as the emphatic form in Middle English has the freedom to occupy a variety of syntactic positions, its Japanese counterpart behaves in a similar way.

(30) a. John-ga [kare-zisin-ga erab-are-ta-to] omot-ta.
John-Nom he-self-Nom choose-Pass-Past-C think-Past
'John thought that he himself was elected.'

b. John-ga kare-zisin-no kuruma-de dekake-ta.
John-Nom he-self-gen car-Inst leave-Past
'John left in his own car.'

c. John-ga kare-zisin-notameni eigo-o benkyosi-ta.
John-Nom he-self-for English-Acc study-PAST
'John studied English for himself.'

As illustrated, the compound form occurs in the subject position (30a), in the possessor position (30b) and in the adjunct position (30c). This is parallel to the situation in Middle English we saw in Section 4.

Second, just as *self* in Old English and in Early Middle English can be used independently of pronouns, *zisin* in Japanese has the same function.

(31) John-wa [zisin-ga erab-are-ru-daroo-to] omot-teita.
John-Top self-Nom choose-Pass-Inf-Tentative-C think-Past
'John thought that he himself would be elected.'

This usage, which does not receive much attention in the literature, seems to be equivalent to the function of anaphor *zibun*. I suspect that it arises from type-shifting of *zisin*, a predicate expression, into an expression of type e.[5]

Returning to the examples in (26) and (27), I suggest that the parallel interpretations obtain through different mechanisms—by means of an emphatic strategy in (26) and lexical reflexivization of a verb in (27). Note that (27) is semantically equivalent to the following example:[6]

(32) John-ga kare-zisin-o hihansi-ta.
John-Nom he-self-Acc criticize-Past
'John criticized himself.'

In either case, movement operation is blocked, contra the proposal made in Noguchi (2005). The reason why reflexive verbs prefixed with *ziko-* are available in Japanese is now attributed to the emphatic structure in (29), where *zisin* is in an adjoined position and cannot undergo head movement to reflexivize a verb. (Note that (32) is unambiguously non-coreferential without

zisin.) Thus, just as Middle English has both an emphatic and a reflexive structure, Japanese has both the emphatic *zisin* and the verbal reflexive *ziko-*; the prefix *ziko-* is a more grammaticalized counterpart of *zisin* just as the reflexive *self* is a more grammaticalized version of the emphatic *self*.

Even though the structure in (29) is essentially the same as its Middle English counterpart, the situation is different in Middle English, however, where the pronoun occupies the D position and the N head position is vacant and available for *self*, which has gradually started to change its category from Adj to N. Japanese *zisin*, on the other hand, is originated as a noun. Since there is already another noun within DP, there is no way for *zisin* to occupy the N head position, without changing the status of the head noun into a complement, for example.

One might still wonder whether *kare* of *kare-zisin* is part of a compound word. This apparently plausible suggestion has a great deal of difficulty in explaining cases like the following:

(33) a. John-zisin, Mary-zisin

    b. Yamada-san-zisin 'Mr. Yamada himself'

       Tanaka-kachoo-zisin 'Section Chief Tanaka himself'

    c. ano-hito-zisin 'that person himself

    d. kare-ra-zisin 'he-Pl-self'

As these examples show, *zisin* may be attached to a variety of DPs: proper names (33a), proper names supported by titles (33b), DPs with a demonstrative determiner *ano* 'that' (33c), and *kare* with a plural suffix *–ra* (33d), which is likely to constitute a functional head (cf. Ritter 1995). Thus, the status of *zisin* as an emphatic marker seems to be well-motivated.[7]

5.2. Grammaticalization of Reflexives in Japanese

The discussion in the preceding section suggests that reflexive interpretation can be arrived at by means of an emphatic *zisin* and a reflexive verbal prefix *ziko-* in Japanese. The purpose of this section is to consider the range of grammatical means available in Japanese to achieve reflexive interpretation and its relation to grammaticalization. Needless to say, the survey is not complete, and a further investigation into the matter needs to be done in future work.

The most basic reflexive form in Japanese is *zibun*, whose behavior has been most intensively studied in the literature. I only wish to note that it is semantically an entity-denoting expression and therefore behaves in many respects like a pronoun. This is in contrast to *zisin* and *ziko*, which are essentially predicative.

The prefix *ziko-* not only attaches to a verb stem but also to a noun stem. The following is a list of predicates prefixed with *ziko-*:[8]

(34) a. Verb Stems:

      ziko-hihan 'self-criticize'   ziko-hitei 'self-negate'

      ziko-keihatu 'self-enlightenment'   ziko-sindan 'self-diagnose'

　　　　ziko-tanren 'self-discipline'

　ｂ．Noun Stems:

　　　　ziko-chuusin 'self-center'　　　　　　ziko-renbin 'self-pity

　　　　ziko-ryuu 'one's own manner'　　　　ziko-shihon 'one's own funds'

　　　　ziko-tugoo 'one's own convenience'

There are also some fixed expressions in which *ziko* behaves as an independent argument of specific verbs.

(35) ziko-o siru 'to know oneself'　　　　　ziko-o migaku 'to polish oneself'

　Let us now turn to the morpheme *zi–*, which is actually part of reflexive forms such as *zibun*, *zisin*, and *ziko*. The morpheme attaches to a variety of verb and noun stems, as discussed in Noguchi (2005). Consider the following examples, some of which are homonymous:

(36) ａ．Verb Stems:

　　　　zi-ei 'self-defense'　　　　　　　　zi-kai 'self-reproach, disintegration'

　　　　zi-metu 'self-destruction'　　　　　zi-ritu 'self-reliance'　zi-satu 'suicide'

　　　　zi-sui 'cooking for oneself'　　　　zi-tyoo 'self-mockery, being cautious'

　ｂ．Noun Stems:

　　　　zi-den 'autobiography'　　　　　　zi-isiki 'self-awareness'

　　　　zi-riki 'one's own power'　　　　　zi-sin '(self-)confidence'

　　　　zi-taku 'one's own home'　　　　　zi-ti 'self-governance'

The morpheme *zi–* may be attached to a variety of stems, which in turn may become part of a larger word, compound, or an idiomatic expression.

(37) ａ．zi-doo-sya 'automobile'　　　　　　zi-ei-tai 'self-defense forces'

　　　　zi-ga-zoo 'self-portrait'　　　　　　zi-gyaku-teki 'self-tormenting'

　　　　zi-kei-dan 'vigilantes' (lit. self-guard-group) zi-syu-sei 'self-reliance'

　ｂ．zi-ga zi-san 'self-praise'　　　　　　zi-kyuu zi-soku 'self-sufficiency'

　　　　zi-mon zi-too 'pondering' (lit. self-question self-answer)

The way *zi–* contributes to the expression as a whole varies, as one might expect of lexicalized forms. What is common to all these cases, however, is that they are associated with some degree of reflexivity. (See Noguchi 2005 for an interpretive mechanism involved in some of these cases.)

　Finally, consider the following expressions:

(38) ａ．ware-ni kaeru 'to come to oneself'　　onore-o siru 'to know oneself'

　　　ｂ．mizukara-o kaerimiru 'to reflect upon oneself'

　　　ｃ．mi-o kiru 'to torment oneself'　　　mi-o mamoru 'to protect oneself'

　　　　　mi-o yudaneru 'to entrust oneself'　mi-o ko-ni suru 'to exert oneself'

These expressions are entirely idiomatic in that each reflexive form can only occur in combination with specific items. But what is of interest to us is that this type of expressions enables us to look into the range of grammaticalization patterns available in a particular language. Note that even personal pronouns *ware* (first person singular) and *onore* (second

person singular), both of them archaic, can be used reflexively, and that a body-part noun *mi* 'body' and a derived form *mizukara* based on the same morpheme have a reflexive function as well, as might be expected from Faltz's grammaticalization schema.[9]

Thus, it seems that there are at least three types of reflexive markers in Japanese.

(39) a．Pronouns: *ware, onore*

    b．Body-part N: *mi*

    c．*zi*–series: *zi*–words, *ziko* (predicate), *zisin* (emphatic), *zibun* (argument)

This might be regarded as a hierarchical organization where the entries in the higher lines are more lexicalized than those in the lower ones. Within the category in (39c), the degree of lexicalization decreases as we move from left to right. Although a closer examination of the historical development of Japanese reflexives is necessary to make any conclusive remark, it seems that pronouns and body-part Ns cease to function reflexively except in certain fixed combinations at a certain point in the historical development and the *zi*– series takes over the reflexive function.[10] Thus, Faltz's (1977) general picture and our reinterpretation thereof seem to be supported by the evidence concerning the development of reflexives in Japanese.

6．Conclusion

I have investigated into the relation between the notion of reflexivity and grammaticalization in this paper. I have shown that reflexive markers are grammaticalized essentially along the lines suggested by Faltz (1977), and that Faltz's observation is closely tied to reflexivization at LF; grammaticalization of reflexive markers is a result of lexicalizing the reflexive configuration at LF. Although this point needs to be examined more carefully in future work, the overall result is that the idea developed in Noguchi (2005) that reflexive anaphora should be captured without regard to Condition A is a step in the right direction.

Footnotes

1   Reinhart and Siloni (2005) propose that the reflexive clitic like French *se* operates on the verb's theta-grid to form a single theta-role complex via the operation which they call "bundling."

    (i) Reflexivization Bundling (Reinhart and Siloni 2005: 400)

        $[\theta_i][\theta_j] \rightarrow [\theta_i - \theta_j]$, where θ_i is an external θ-role.

    As far as I can see, (i) is equivalent to (9b) and I will stick to the latter for the sake of exposition.

2   It might be interesting to note that the merger is not yet complete in Early Modern English; thus, VG (p. 112) notes that Shakespeare uses the non-hyphenated compound form mostly for third person reflexive pronouns as in *himselfe*, while he keeps the pronoun and *self* separate for first and second person compounds as in *my selfe* and *thy selfe*. This type of person split

seems to be related to the fact that third person pronouns are referentially ambiguous and that a heavier pragmatic (or Gricean) pressure is put on the speaker to make the intention explicit, as noted by Faltz (1977).

3 Keenan (2002) argues against this scenario and suggests that the pronoun + *self* merger is a result of a general process of "function word proclisis." As I will show below, the reanalysis in question is basically of syntactic nature and a phonological approach like Keenan's cannot be the whole story.

4 The internal structure of the inner DP does not affect our discussion that follows. See Noguchi (1997) for the claim that *kare* in Japanese is a noun; thus, the inner DP would be treated essentially on a par with proper nouns.

5 The choice of *zibun* or *zibun-zisin* is affected by the availability of a lexical reflexive form.
   （i）a. *John-ga   zibun(-zisin)-to muzyunsi-ta.

          John-Nom self-self-with   contradict-Past 'John contradicted himself.'

       b. John-ga   ziko-muzyunsi-ta.

          John-Nom self-contradict-Past

This seems to be the result of blocking, where the productive pattern is blocked in favor of a marked form.

6 Note that the version with *ziko-* is unacceptable in (26) due to the lexical and mostly idiosyncratic restriction on the verb stem. For further examples, see Section 5.2.

7 One might still wonder if (27b) violates Condition B. Note that this question does not arise under R&R's (1993: 678) version of Condition B.
   （i）Condition B

       A reflexive semantic predicate is reflexive-marked.

Thus, although I do not find Condition A necessary, Condition B survives in one way or another. See Reuland and Reinhart (1995) for related discussion.

8 The verb stem forms need to be supported by the light verb *suru* in order to serve as the main predicate of a clause.

9 Note that the morpheme *karada* 'body' does not seem to undergo the same grammaticalization that *mi-* does; compare *mi-o kiru* 'to torment oneself' with *karada-o kiru* 'to cut one's body.'

10 A cursory look at *The Tale of Genji*, a novel written in the early 11th century in Japan, suggests that the idea seems to be on the right track: the reflexive function of *mi* seems to be more productive in the mid-Heian period, as in *mi-wo motenasi* 'taking care of oneself' and *gakumon-nado-ni mi-wo kurusimem* 'to trouble oneself with things like learning.'

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