# ABSTRACT

Title of dissertation:     REFLEXIVES IN JAPANESE

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The purpose of this dissertation is to reconsider reflexives in Japanese through the following three steps: (a) separation of genuine reflexive elements from elements that are confounded as reflexives, (b) classification of reflexive anaphors into subtypes based on their semantic difference, and (c) classification of predicates that occur with anaphors.

Many researchers have worked on the reflexive element *zibun* 'self,' but Japanese has other reflexive elements as well. These elements including *zibun* have not only the reflexive anaphor usage but also other ones. All the instances are, however, often lumped together under the category 'reflexives.' I distinguish genuine reflexive anaphors in Japanese from elements that are confounded as reflexive elements, by scrutinizing their syntactic and semantic properties and behavioral differences.

Further, I claim that reflexive anaphors are classified into two subtypes as 'Pure reflexive anaphors' and 'Near reflexive anaphors' (Lidz, 1996, 2001a,b) based on their semantic property. Observing several languages from different language families, I propose that there is a parametric variation with respect to the two-type distinction of reflexive anaphors among languages. In languages like Japanese, anaphors in the form of affix

are Pure reflexive anaphors, while non-affixal anaphors are Near reflexive anaphors. On the other hand, in languages like Dutch, the morphological composition (complexity) of anaphor corresponds to the two-type anaphor distinction. What yields this variation is also discussed.

In considering reflexives, it is important to know the nature of reflexive anaphors, but it is also essential to understand the nature of predicates that occur with an anaphor. One of the unsolved questions in the research of reflexives in Japanese is that the anaphor *zibun* cannot take a local antecedent when it occurs with a certain type of verb, although anaphors should be locally bound. Several studies have demonstrated that the availability of local binding of an anaphor depends on the property of its cooccuring predicate (Reinhart and Reuland, 1993, Bergeton, 2004, among others). Discussing how the type of reflexive and the type of predicate relate, I propose a way to categorize predicates in Japanese into subtypes based on the analysis in Bergeton (2004). By going through the three steps, I give an answer to the unsolved question.

Reflexives in Japanese


by


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# List of Abbreviations

| | |
|---|---|
| Abl | ablative |
| Acc | accusative |
| Asp | aspect |
| Ben | beneficiary |
| Caus | causative |
| Cl | classifier |
| Comp | complementizer |
| Cop | copular |
| Dat | dative |
| Decl | declarative |
| Def | definite |
| Des | desiderative |
| Det | determiner |
| Fut | future |
| Gen | genitive |
| Impf | imperfect |
| Instr | instrument |
| Int | intransitive |
| Mid | middle |
| Neg | negative |
| Nom | nominative |
| Past | past |
| Pl | plural |
| Pol | polite |
| Prog | progressive |
| Pres | present |
| Prt | participle |
| Q | question |
| Ref | reflexive |
| Top | topic |
| Tran | transitive |
| 3SG | 3rd person singular |
| 3Past | 3rd person past |
| 3SM | 3rd person singular male |
| 3SF | 3rd person singular female |

# Chapter 1

# Introduction

A large number of researchers have been working on reflexives in Japanese, especially on the reflexive element *zibun* 'self.' This item is well known for allowing a non-local antecedent as in (1), unlike anaphors in other languages, for example, the English anaphor *himself* demonstrated in (2).[1]

(1) John$_i$-wa Mary$_j$-ga   zibun$_{i/j}$-o seme-ta     to     it-ta.

   John-Top Mary-Nom self-Acc   blame-Past Comp say-Past

   'John$_i$ said that Mary$_j$ blamed self$_{i/j}$.'

(2) John$_i$ said that Bill$_j$ blamed himself$_{*i/j}$.

This non-anaphor-like behavior of *zibun* has caused prolonged discussion on its status: some researchers claim that *zibun* is an anaphor that is subject to Binding Principle A (Chomsky, 1981, 1986) with the special property of allowing non-local binding in some environments (Katada, 1988, 1991: see also the references cited in Section 2.1), while other researchers propose that this item is a pronoun that is subject to the Binding Principle B with the special property of allowing local binding in some environments, such as Fukui (1984): see the references cited in Section 2.1.

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[1] Japanese marks only past tense, not present tense, on verbs, using an independent tense marker. In the examples in this thesis, I indicate verbs in past tense by adding the past tense marker *-ta* to verbs: for example, the matrix verb *it-ta* in (1) consists of the verb *iu* 'say' and the tense marker. Verbs in present tense take the marker 'Pres' on their gloss: the same verb *iu* 'say' in present tense is indicated as *iu* 'say.Pres.'

(3) a. (Principle A) an anaphor is bound in a local domain.

    b. (Principle B) a pronominal is free in a local domain.     (Chomsky, 1986, 166)

In this thesis, I claim that there are three types of *zibun*: reflexive *zibun*, empathic *zibun* and logophoric *zibun* (cf. Hirose (2002) and Oshima (2004, 2006, 2007)).[2] In Section 2.1, I show that each type of *zibun* has distinctive properties. Here, I briefly mention the reflexive type of *zibun*. Taking the meaning of 'reflexive' into consideration, I regard only *zibun* that occurs in a relation in which an anaphor and its antecedent are arguments of a lexical predicate as a reflexive anaphor.[34] For, a reflexive relation is a relation in which an action that happens to or turns back on the person/thing that does the action. Then, under this assumption, in (1), *zibun* that takes the local antecedent Mary is of the reflexive type: this *zibun* is in a coargument relation of the same predicate *semeru* 'blame' with its antecedent Mary. On the other hand, *zibun* that takes the non-local antecedent John is not regarded as of the reflexive type, because it is not in a reflexive relation with its antecedent in the blaming event: Mary has the blamer role and John has

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[2]Whether different 'types' of *zibun* correspond to separate lexical items or different sets of licensing conditions is an open question.

[3]What I mean by lexical predicates are predicates that take a lexical argument such as *something* in (i), not a phrasal argument such as *(that) Mary swam so fast* in (ii). The verb *say* functions as a lexical predicate in (i) but it does not in (ii).

  (i) John said something.

  (ii) John said [(that) Mary swam so fast].

[4]In this thesis, I mainly consider anaphors that occur in object position of a verb, but I give some examples in which anaphors occur in other positions like possessor positions.

the blamee role. What type of *zibun* in this usage will be discussed in Section 2.1. I claim that reflexive *zibun* requires a local antecedent, contrary to *zibun* of the non-reflexive type that allows a non-local antecedent.

In addition to *zibun*, Japanese has other 'reflexive elements': *zibun-zisin* 'self-self' and *zi-/ziko*-affixes 'self-.' Many researches regard these items as uniformly reflexive elements, but I argue that the categorization of these items is not so simple. In Section 2.2, I claim that there are two types of *zibun-zisin* (cf. Mihara and Hiraiwa (2006)). One type of *zibun-zisin*, as exemplified in (4a), is an anaphor. The other type is the intensified form of reflexive *zibun* as in (4b): the *-zisin* 'self' affix (marked by the stress mark) adds a contrastive meaning to *zibun*.[5]

(4) a. John$_i$-wa zibun-zisin$_i$-o seme-ta

    John-Top self-self-Acc  blame-Past
    'John blamed himself.'

  b. John$_i$-wa zibun$_i$-zísin-o     seme-ta

    John-Top self-Intensifier-Acc blame-Past
    'John blamed himself, not someone else.'

In Section 2.3, I consider types of *zi-/ziko*-affixes used in morphologically complex verbs known as *zi*-verbs and *ziko*-verbs. (5) shows the examples of each type of verb.

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[5]Another way to capture the difference between (4a) and (4b) is to say that the latter *zibun-zísin* is the contrastive form of the first type of *zibun-zisin*. In this thesis, I, however, presume that *zibun-zísin* consists of the anaphor *zibun* and the affix *-zísin*, as I will discuss in Section 2.2.

(5) a. John-wa   zi-satu-si-ta.

   John-Top self-killing-do-Past

   'John killed himself.'

  b. John-wa   ziko-syoukai-si-ta.

   John-Top self-introduction-do-Past

   'John introduced himself (to everyone).'

These verbs have been uniformly taken as 'reflexive verbs' (Tsujimura and Aikawa, 1996, 1999). An investigation into the true nature of this class of verb is, however, yet to be conducted. I demonstrate that the *zi-/ziko*-affixes function as arguments that mean 'self' in some *zi-/ziko*-verbs, but the same affixes function like adverbs in other verbs. The goal of Chapter 2 is to distinguish reflexive elements from elements that are often confounded as reflexives. I focus only on genuine reflexives in the later chapters.

  Chapter 3 considers how reflexive elements in one language are classified. In Chapter 2, I show that Japanese has multiple forms of reflexive anaphor. As I assume that elements that occur in a relation that an anaphor and its antecedent are arguments of a predicate as reflexive anaphors, the syntactic distribution of the multiple forms of anaphor are captured by the Binding Principle A in (3). We, however, have some questions now: Can we use these multiple forms of anaphor interchangeably? Are their distributions the same or different? If different, how? In Sections 3.1-3.3, I review three previous studies on reflexivity: Reinhart and Reuland (1993), Lidz (1996, 2001a,b) and Liu (2003). These works consider languages with multiple forms of anaphors and discuss quite a number of languages, but not Japanese. I show how each analysis classifies anaphors. In Section 3.4,

I apply these analyses to Japanese and conclude that the latter two analyses are available to capture differences among the multiple forms of Japanese anaphor that I sort out in Chapter 2. The applications of these analyses indicate that the reflexive anaphors show semantic differences in some environments. I consider how the multiple forms of anaphor differ.

In Chapter 4, I consider how reflexive elements in Japanese, and more generally, in languages with multiple forms of anaphor, are classified. I make two proposals. My first proposal is that there are only two types of reflexive anaphors in languages: 'Pure reflexive anaphor' and 'Near reflexive anaphor' in the sense of Lidz (1996, 2001a,b). I introduce my first proposal in Section 4.1. My second proposal is that there is a parametric variation of the two-way classification of anaphors. Some languages, such as Dutch and Kannada, categorize anaphors based on their morphological complexity: morphologically simple (monomorphemic) anaphors are Pure reflexive anaphors and complex (polymorphemic) anaphors are of the Near reflexive type. In other languages, such as Japanese and Russian, the affix and non-affix difference corresponds to the distinction of the two types of anaphor. I consider what yields this variation in Section 4.2.

Chapter 5 discusses the relation between types of reflexive and types of predicate. The goal of this chapter is to give an answer to one of the unsolved questions in the study of reflexives in Japanese: what causes the different acceptability of local *zibun* binding between (6a) and (6b)? The local binding of *zibun* is allowed in the former sentence but excluded in the latter one (Oshima, 1979, Ueda, 1986, Aikawa, 2001).

(6) a. John-wa  zibun-o  seme-ta.

   John-Top self-Acc blame-Past

   'John$_i$ blamed himself$_i$.'

 b.∗ John-wa  zibun-o  ket-ta.

   John-Top self-Acc kick-Past

   'John$_i$ kicked himself$_i$.'　　　　　　(Ueda, 1986, originally from Oshima, 1979)

Although some previous works regard *zibun* in (6a) as an anaphor that is locally bound and *zibun* in (6b) as a pronoun that is locally not bound, I demonstrate that *zibun* in both cases is a reflexive anaphor. I attribute the different acceptability of the local *zibun* binding to the different properties of its cooccuring predicates: in (6b), the anaphor *zibun* is locally bound by John, but the local antecedent reading is blocked by a property of the verb *keru* 'kick.'[6] In Section 5.1, I observe several cases of backward binding of *zibun* and consider how the type of this element and the types of predicate relate. In Section 5.2, I consider how Japanese predicates are classified, reviewing previous works that propose how to classify predicates into types. I give an answer to the question: why is the local binding of *zibun* allowed in (6a) but not in (6b)?

Chapter 6 provides a brief summary of this thesis and concludes the study.

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[6]Ueda (1986) lists some other verbs that allow local *zibun* binding, like *semeru* 'blame' in (6a): *aisuru* 'love,' *nikumu* 'hate,' *osoreru* 'fear,' *bengo-suru* 'defend' and *nagusameru* 'comfort.' Other verbs that exclude local *zibun* binding, like *keru* 'kick' in (6b), are *naguru* 'hit' and *korosu* 'kill.'

Chapter 2

Reflexive and Apparent-reflexive elements in Japanese

In this chapter, I show properties of reflexive elements and apparent-reflexive elements (some elements that are often confounded as reflexive elements, but I argue that they are actually non-reflexive) in Japanese and show behavioral differences among these items. I observe *zibun* 'self,' *zibun-zisin* 'self-self,' and *zi-/ziko*-affixes 'self-' in Sections 2.1–2.3. These elements have been analyzed as reflexive elements, but I claim that not all of *zibun*, *zibun-zisin* and *zi-/ziko*-affixes are reflexive elements. I demonstrate that there are several types of *zibun*, *zibun-zisin* and *zi-/ziko*-affixes and aim to separate true reflexive elements from apparent-reflexive ones. In Section 2.4, I consider other reflexive elements which have been largely un-studied: *zisin*, *ziko* and *mizukara* that all mean 'self.' Section 2.5 is the summary of this chapter. At the end of this chapter, I give a list of the genuine reflexive elements in Japanese, which I will focus on in the later chapters.

## 2.1  *Zibun*

The majority of previous work on *zibun* assumes a one-way or two-way classification of the item. Analyses that assume only one type of *zibun* must explain how *zibun* allows both local and non-local antecedents in different environments (recall (1)). Some of these uniform analyses assume that *zibun* is an anaphor (Katada, 1988, 1991, Aikawa 1993, Hara, 2002, among others). For example, Katada (1988) claims that *zibun* is an

operator anaphor that raises at LF, since it is a 'lexical anaphor' that is composed of only itself. It contrasts with a 'phrasal anaphor' such as *zibun-zisin* 'self-self' that is composed of two parts *zibun* 'self' and the affix *-zisin* '-self.'[1] The latter does not raise at LF. Some other analyses of the uniform approach claim that the item is a pronoun (Fukui, 1984, Sportiche, 1986, Ueda, 1986, among others). Ueda (1986) claims that Japanese has two types of pronoun: (a) *zibun* that is not feature-specified and functions as bound variables, and (b) *kare* 'him' or *kanozyo* 'her' that are feature-specified and cannot function as a bound variable. There are, on the other hand, approaches that classify *zibun* into two types. Their classification is based on the locality of the antecedent: *zibun* bound by a local element, on the one hand, and *zibun* bound by a non-local element, on the other, belong to different types. For example, Iida (1996) separates *zibun* bound by a coargument from *zibun* bound by a non-coargument. Abe (1997) regards locally bound *zibun* as a reflexive anaphor and non-locally bound one as a logophoric pronoun.

In this thesis, I support a three-way classification (cf. Hirose (2002), Oshima (2004, 2006, 2007)). My assumption is that, in addition to the reflexive type of *zibun* that has to be bound by a local coargument, there are two more types of *zibun* that is / can be bound by a non-local element. I call one type of *zibun* that has a non-local antecedent empathic *zibun* and the other type logophoric *zibun*.[2] Empathic *zibun* is replaceable with a personal pronoun, while logophoric one is not. In contrast, logophoric *zibun* elicits a '*de*

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[1]Katada's (1988) classification is briefly summarized in Footnote 10 of this chapter.

[2]I use the term 'empathic' following Oshima (2004) and other works like Kuno and Kaburaki (1977) and Kuno (1978). Oshima uses a different term 'pov-o-phoric' for an element that is non-locally bound in non-logophoric environments in Oshima (2007).

*se* interpretation' (I will shortly explain what this interpretation is), while the empathic one does not. These two types of *zibun* have been confounded with the reflexive type of *zibun*, but they are independent types. There are, thus, three types of *zibun* in total.

*Zibun* has been acknowledged as an element that is subject-oriented: *zibun* refers to a subject and cannot refer to a non-subject. Some previous works have reported "counterexamples" in which *zibun* takes a non-subject antecedent. I claim that *zibun* in these examples is not of the reflexive type and it does not have the property Subject-orientation. The reflexive type of *zibun* is subject-oriented, but the non-reflexive type of *zibun*, namely logophoric *zibun*, allows non-subject as well as subject antecedents. In Sections 2.1.1 and 2.1.2, I review properties and distribution of reflexive *zibun* and non-reflexive (empathic and logophoric) *zibun*, respectively. I argue that the "counterexamples" just show that *zibun* of the non-reflexive type allows a non-subject antecedent. The aim of these subsections is to indicate that the three types of *zibun* are subject to distinctive conditions.

## 2.1.1 Reflexive *Zibun*

In this subsection, I review basic properties of reflexive *zibun*. Reflexive *zibun* is not feature-specified. For example, this item is not gender-specified: it can have either a male antecedent as in (7a) or a female antecedent as in (7b). (8) indicates that it can be used regardless of person and number: it can refer to the first person and the second person. Plural nouns also can be antecedents of *zibun* as in (9).

(7) a. John-wa  zibun-o  seme-ta.

   John-Top self-Acc blame-Past

   'John$_i$ blamed himself$_i$.'

   b. Mary-wa  zibun-o  seme-ta.

   Mary-Top self-Acc blame-Past

   'Mary$_i$ blamed herself$_i$.'

(8) a. Watasi-wa zibun-o  seme-ta.

   I-Top       self-Acc blame-Past

   'I$_i$ blamed myself$_i$.'

   b. Anata-wa zibun-o  seme-ta.

   you-Top   self-Acc blame-Past

   'You$_i$ blamed yourself$_i$.'

(9) [Gakusei-tati]-wa zibun-o  seme-ta.

   student-Pl-Top     self-Acc blame-Past

   'The students$_i$ blamed themselves$_i$.'

Another property of reflexive *zibun* is that it has an Animacy restriction: its antecedent

has to be 'something that is animate and has will power' (Kuno, 1973, 291).[3] In (10a), the

subject of the sentence is John, an animate element. This subject is the eligible antecedent

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[3]Although I use the term 'Animacy restriction,' not all animate elements are eligible antecedents of

*zibun*. As defined in Kuno (1973), only element that is animate and has will power is eligible antecedent of

*zibun*. Animals are animate. It is, however, unlikely that they have will power as do human being. In fact,

the acceptability of (i) that contains an animal subject is not high.

of *zibun*. In contrast, in (10b), the subject is *sinbun* 'newspaper,' an inanimate element. This is not an eligible antecedent of *zibun*. The sentence is excluded.

(10) a. John-wa  zibun-o  home-ta.

    John-Top self-Acc praise-Past

    'John praised himself.'

    b.∗ Sono sinbun-ga     kaze-ni zibun-o  hiroge-ta.

     that   newspaper-Nom wind-in self-Acc unfold-Past

     'The newspaper unfolded itself in the wind.'     (Kuno, 1973, 292)

Also, as we have seen above, it is well known that reflexive *zibun* is subject-oriented: *zibun* refers to an element in a subject position but not to an element in a non-subject position. In (11), *zibun* refers to the subject John, but not the indirect object Bill.

(11) John-wa  Bill-ni   zibun-ni-tuite hanasi-ta.

    John-Top Bill-Dat self-about    tell-Past

    'John$_i$ told Bill$_j$ about himself$_{i/*j}$.'

'Subjects' in the subject-orientation property in Japanese mean structural subjects. For, in (12), both the major subject John and the thematic subject *musume* 'daughter' are the

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(i)  # Sono inu-ga     zibun-o  {seme-ta    / nagusame-ta}.

    that   dog-Nom self-Acc {blame-Past / comfort-Past}

    'That dog {blamed / comforted} himself.'

Although all the well-formed examples used in this thesis have human antecedents, I use the term 'Animacy restriction,' not 'Human antecedent requirement.' What I mean by 'animate element' is 'animate element with will power' hereafter.

possible antecedent of *zibun*.[4]

(12) John$_i$-ga    musume$_j$-ga    zibun$_{i/j}$-o kira-teiru.

John-Nom daughter-Nom self-Acc   hate-Asp

'It is John whose daughter hates him (= John) / her (= John's daughter)'

(Takano, 2003, (31a))

Further, it has been claimed that *zibun* allows a non-local antecedent as well, as I have mentioned in (1). In the sentence, repeated here as (13), *zibun* in the embedded clause can refer to either the local subject Mary or the non-local subject John.

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[4]If John in (12) is marked with a genitive marker as in (i), then only the (thematic) subject *musume* 'daughter' is the eligible antecedent of *zibun*.

(i) John$_i$-no  musume$_j$-ga    zibun$_{*i/j}$-o kira-teiru.

John-Gen daughter-Nom self-Acc    hate-Asp

'John's daughter hates herself.'

The examples (i)-(iii) illustrate that *zibun* always requires a c-commanding antecedent, like English anaphors: *zibun* in (i) is in an object position of a verb, the one in (ii) is in a possessor position, and the one in (iii) is in a coordinate structure. In all the examples, *zibun* refers to John.

(ii) John$_i$-ga  zibun$_{i/*j}$-no musume$_j$        kira-teiru.

John-No, self-Gen     daughter-Acc hate-Asp

'John hates his daughter.'

(ii) John$_i$-ga  [Mary$_i$ to   zibun$_{i/*j}$]-o kira-teiru.

John-No, Mary   and self-Acc     hate-Asp

'John hates Mary and himself.'

12

(13) John$_i$-wa [ Mary$_j$-ga    zibun$_{i/j}$-o seme-ta]    to      it-ta.                    (= (1))

John-Top   Mary-Nom self-Acc  blame-Past Comp say-Past

'John said that Mary$_j$ blamed herself$_j$.'

'John$_i$ said that Mary blamed him$_i$.'

Recall that, as I have mentioned in Chapter 1, I regard only *zibun* that occurs in a relation in which an anaphor and its antecedent are arguments of a lexical predicate as a reflexive anaphor.[5] Then, *zibun* that refers to the local subject Mary is a reflexive anaphor: *zibun* and Mary are arguments of the verb *semeru* 'blame.' Mary's reflexive action: blaming herself, is involved. On the other hand, *zibun* that refers to the non-local subject John is not a reflexive anaphor. What the antecedent John was involved in is the saying event. *Zibun* and John are not arguments of the verb *semeru* 'blame.' So, although *zibun* is known as an element that allows a non-local antecedent as well as a local antecedent, I

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[5]In ditransitive structures, clausal predicate structures and ECM construction, *zibun* refers to subject: in (i)-(iii), *zibun* refers to the stubject John. This thesis, however, does not discuss *zibun* in these constructions.

(i)   John$_i$-wa zibun$_i$-ni hon-o      okut-ta.

John-Top self-Dat  book-Acc send-Past
'John sent himself a book.'

(ii)  John$_i$-wa Mary$_j$-ni   zibun$_i$-o home-sase-ta.

John-Top Mary-Dat self-Acc praise-Caus-Past
'John made Mary praise him.'

(iii) John$_i$-wa zibun$_i$-o kasikoi    to      sinzi-teiru.

John-Top self-Acc be.smart Comp believe-Asp.Pres
'John believes himself to be smart.'

claim that *zibun* in the two cases are of the different types. Only reflexive *zibun* requires a local coargument subject antecedent. I will discuss the type of *zibun* that takes a non-local antecedent in Section 2.1.2.

Japanese has idioms that consist of *zibun* and some verbs, such as *zibun-o korosu* in (14) that literally means 'kill oneself,' but it means 'sacrifice oneself' as an idiom.

(14) John-wa **zibun-o korosi**-te kaisya-no      tame-ni   hatarai-ta.

John-Top self-Acc kill-and   company-Gen favor-Dat work-Past

'John sacrificed himself and worked hard for his company.'

*Zibun* in such verbal idioms is of the reflexive type, because it shares all the properties of reflexive *zibun*. Recall the properties: (a) it has an Animacy restriction and (b) it has coargument binding requirement, and (c) it is subject-oriented. *Zibun* in idioms seems to have an Animacy restriction: in (15), the inanimate subject *elevator* is not compatible with the idiom.[6]

(15)*Erebeetaa-wa zibun-o  korosi-te hito-o      hakobu.

elevator-Top   self-Acc kill-and   people-Acc carry.Pres

'Elevators sacrifice themselves and carry people.'

*Zibun* in idioms requires a coargument antecedent: in (16), when *zibun* refers to the local subject John, the verb is interpreted with the idiomatic meaning ('sacrifice') and a reflex-

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[6]As Jeff Lidz points out, the unacceptability of this sentence might be because of the selectional restriction of the verb *korosu* 'kill' (in the literal meaning) or the one of 'sacrifice' (in the idiom meaning), not because of the property of *zibun*.

ive action is involved.[7] In contrast, if it refers to the non-local subject Mary, the verb is read with the literal meaning ('kill') and the killing action is not a reflexive action.

(16) Mary$_i$-wa John$_j$-ga  zibun$_{i/j}$-o koros-ou to si-teiru   to   omot-ta.

Mary-Top John-Nom self-Acc  kill     do-Asp.Pres Comp think-Past

'Mary thought John is going to sacrifice himself.' (idiomatic reading)

'Mary thought John is going to kill her.' (literal reading)

Also, *zibun* in idioms is subject-oriented. These idioms can occur with subjects but not with indirect objects. *Zibun* in idioms refers to its cooccuring subject. Other examples of this type of idioms are given in (17).

(17)

| idiom | meaning of idiom | literal meaning of verb |
|---|---|---|
| *zibun-o osaeru* | control oneself | control |
| *zibun-o kitaeru* | discipline oneself | train |
| *zibun-o migaku* | improve oneself | polish |
| *zibun-o mitumeru* | find oneself | stare, gaze at |
| *zibun-o sagasu* | find oneself | search |
| *zibun-o damasu* | deceive oneself | deceive |
| *zibun-o gomakasu* | deceive oneself | cheat |
| *zibun-o dasu* | bring oneself | take out |

[7]The local requirement here might be due to the property of reflexive *zibun*, but might be due to the property of the idiom. I thank Jeff Lidz for pointing this out.

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Some verbs used in idioms lost their original literal meaning: as we have seen above, the verb *korosu* in (14) literally means 'kill' but it means 'sacrifice' in the idiom. Some verbs keep their original meaning.

Before closing this subsection, I introduce one type of Japanese reflexive element that this thesis does not discuss. This type of reflexive element is feature-specified and consists of 'personal pronouns' and the suffix *-zisin* '-self,' such as *kare-zisin* 'him-self' and *kanozyo-zisin* 'her-self' in (18). *Kare-zisin* requires a male antecedent as in (18a), while *kanozyo-zisin* requires a female antecedent as in (18b).

(18) a. {John / *Mary}-wa kare-zisin-o seme-ta.

   {John / Mary}-Top him-self-Acc blame-Past

   '{John$_i$ / *Mary$_i$} blamed himself$_i$.'

   b. {*John / Mary}-wa kanozyo-zisin-o seme-ta.

   { John / Mary}-Top her-self-Acc blame-Past

   '{*John$_i$ / Mary$_i$} blamed herself$_i$.'

In this thesis, I will not discuss this type of reflexive elements because these items are rarely used, especially in colloquial speech. Also, the nature of the 'personal pronoun' part such as *kare* 'he, him' and *kanozyo* 'she, her' is still controversial: they are not the exact counterparts of English personal pronouns *he* and *she* (Hoji, 1991). For example, consider if an item functions as a bound variable in (19).

16

(19)  a. Everyone$_i$ believes that he$_i$ will pass that exam.

  b. *Daremo$_i$-ga     [kare$_i$-ga sono siken-o   pasu-suru      to]    sinzi-teiru.

     everyone-Nom   he-Nom that exam-Acc passing-do.Pres Comp believe-Asp.Pres

     'Everyone believes that he will pass that exam.'

  c. Daremo$_i$-ga     [zibun$_i$-ga sono siken-o   pasu-suru      to]    sinzi-teiru.

     everyone-Nom   self-Nom that exam-Acc passing-do.Pres Comp believe-Asp.Pres

     'Everyone believes that he will pass that exam.'

English *he* functions as a bound variable in (19a), but Japanese *kare* cannot in (19b).

Rather, as (19c) indicates, *zibun* 'self' can be construed as a bound variable (Aoun and

Hornstein, 1992, Hoji, 1991, Saito and Hoji, 1983). *Kare* is not a counterpart of *him*, and

thus, *kare-zisin* is not a straightforward counterpart of *himself*.

In (20), *kare-zisin* 'him-self' replaces *kare* and *zibun* in (19b,c). The acceptability of the

sentence is low and this result shows that *kare-zisin* does not function as a bound variable.

(20) *Daremo$_i$-ga     [kare-zisin$_i$-ga sono siken-o   pasu-suru      to]    sinzi-teiru.

     everyone-Nom   he-self-Nom  that exam-Acc passing-do.Pres Comp believe-Asp.Pres

     'Everyone believes that he will pass that exam.'

Thus, I do not include *kare-zisin* in my discussion in this thesis and I focus only on feature-

unspecified type of anaphors such as *zibun*. However, I tentatively regard elements like

*kare* as 'personal pronouns in Japanese' for convenience in this thesis.

## 2.1.2  Non-reflexive *Zibun*

In this subsection, I show the basic properties and distribution of two types of non-reflexive *zibun*: empathic *zibun* and logophoric *zibun*. *Zibun* in (21) is the example of empathic *zibun*, and the one in (22) is the example of logophoric *zibun*.

(21)  Taro$_i$-wa [ Hanako-ga    zibun$_i$-ni kasite kure-ta] okane-o    tukatte-simat-ta.

     Taro-Top   Hanako-Nom self-Dat  lend   Ben-Past money-Acc spend-end.up-Past

     'Taro$_i$ has spent all the money that Hanako lent to him$_i$.'            (Abe, 1997, (62))

(22)  John$_i$-wa [ zibun$_i$-ga Bill-o    tasuke-ta ] to    omot-teiru.

     John-Top self-Nom   Bill-Acc help-Past   Comp believe-Asp.Pres

     'John$_i$ believes that he$_i$ helped Bill.'

The clear difference between reflexive *zibun* and non-reflexive *zibun* is that, while reflexive *zibun* is always bound by a local coargument subject, non-reflexive *zibun* takes / can take a non-local antecedent. In Sections 2.1.2.1 and 2.1.2.2, I show distinctive properties of the non-reflexive types of *zibun* and their distributions. In Section 2.1.2.3, I argue that "counterexamples," in which *zibun* that has been claimed to show Subject-orientation is not subject-oriented, are not counterexamples and that these examples just show a non-reflexive *zibun* allows a non-subject antecedent as well. In Section 2.1.2.4, I show some cases where *zibun* is obviously used in non-reflexive usages.

## 2.1.2.1  Empathic *Zibun*

The empathic type of *zibun* is bound by the 'empathic locus,' the participant that the speaker empathizes with or identifies with most (Kuno and Kaburaki, 1977). Kuno and

Kaburaki (1977) and Kuno (1987) report that this type of *zibun* is found in subordinate clause, as in (21). First of all, in order to know the nature of empathy, let us consider giving verbs in Japanese first.[8] In Japanese, the English sentence (23) is expressed in two ways as (24a) and (24b): the two sentences have different verbs *yaru* and *kureru*.

(23) Taro gave money to Hanako.

(24) a. Taro-wa  Hanako-ni  okane-o  **yat**-ta.

     Taro-Top Hanako-Dat money-Acc give-Past

   b. Taro-wa  Hanako-ni  okane-o  **kure**-ta.

     Taro-Top Hanako-Dat money-Acc give-Past

(Kuno and Kaburaki, 1977, (6,7))

The English sentence cannot be described objectively in Japanese, and the speaker has to describe the situation from either the subject's or the dative object's perspective. The two perspectives are expressed by different verbs. When the action is looked at from a subject element's point of view, the verb *yaru* in (24a) is used. Let us call this verb a subject-centered giving verb. On the other hand, when a non-subject element has the point of view, the verb *kureru* in (24b) is used. This is a non-subject-centered giving verb. In (24a) with the verb *yaru*, the subject *Taro* is the empathy locus, or in other words, he has the point of view. In contrast, in (24b) with the verb *kureru*, the dative object *Hanako* is the empathy locus (see Kuno and Kaburaki (1977) for other subject-centered and non-subject-centered verbs).

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[8]Many researches assume similar notion to empathy in different names: for example, Iida and Sells (1988) uses the term PIVOT for person from whose point of view the report is made.

Now, compare (25a) to (25b) that repeats (21).

(25) a. * Taro$_i$-wa [ Hanako-ga    zibun$_i$-ni kasite **yat**-ta]    okane-o      tukatte-simat-ta.

   Taro-Top   Hanako-Nom self-Dat  lend   Ben-Past money-Acc spend-end.up-Past

b. Taro$_i$-wa [ Hanako-ga    zibun$_i$-ni kasite **kure**-ta] okane-o      tukatte-simat-ta.

   Taro-Top   Hanako-Nom self-Dat  lend   Ben-Past money-Acc spend-end.up-Past

   'Taro$_i$ has spent all the money that Hanako lend to him$_i$.'

The giving verbs *yaru* and *kureru* reviewed in (24) are used as auxiliary verbs in (25). In these examples, *zibun* is in the dative object (non-subject) position of the relative clause. If the reference of *zibun* is *Taro*, the non-subject-centered auxiliary verb *kureru* has to be used, as in (25b). If *yaru* is used as in (25a), it implies that the speaker empathizes with the subject *Hanako* in the relative clause and we have an empathy locus conflict: the speaker empathizes with *Hanako*, on the one hand, but *Taro* should be the empathic locus that binds the empathic *zibun*, on the other hand. Such a conflict is not observed in (25b).

Empathic *zibun* shares some properties with reflexive *zibun*. For example, empathic *zibun* also has an Animacy restriction. See the contrast in acceptability between the two sentences in (26).

(26) a. Taro$_i$-wa [ Hanako-ga    zibun$_i$-ni kasi-ta]    okane-o      mudanisite-simat-ta.

   Taro-Top   Hanako-Nom self-Dat  lend-Past money-Acc waste.up-end.up-Past

   'Taro$_i$ wasted up all the money that Hanako lend to him$_i$.'

b. * Daigaku$_i$-wa   [ Hanako-ga    zibun$_i$-ni harat-ta] zyugyoryo-o mudanisite-simat-ta.

   university-Top   Hanako-Nom self-Dat  pay-Past tuition-Acc   waste.up-end.up-Past

   'The university$_i$ wasted up all the tuition that Hanako paid to it$_i$.'

20

In (26a), the animate subject *Taro* can be the empathic locus, and it can bind *zibun*. In contrast, in (26b), the matrix subject *daigaku* 'university' is inanimate and it cannot be the empathic locus. The sentence is excluded.

Also, in (27), empathic *zibun* is subject-oriented, like reflexive *zibun*: the reading in which *zibun* refers to the indirect object John in the matrix clause is not available.

(27) Ken-wa John$_i$-ni [ Mary-ga zibun$_i$-ni kasite kure-ta] okane-o watasi-ta.

  Ken-Top John-Dat Mary-Nom self-Dat lend Ben-Past money-Acc give-Past

  ∗'Ken gave John$_i$ all the money that Mary lend to him$_i$.'

Although empathic *zibun* refers to John, a male, in the above example, it can refer to female or plural elements. That is, this item is also not feature-specified.

   Empathic *zibun* has some properties that reflexive *zibun* lacks. A first property is that it cannot be a coargument of a first person pronoun (Kuno, 1978, Oshima, 2004). The referent of a first person pronoun (or the speaker) always empathically outranks other participants: in (28), the speaker cannot empathize with *Taro*, the reference of *zibun*, because the speaker *boku* 'I' occurs in the sentence and this is the element that the speaker empathizes with.

(28)∗ Taro$_i$-wa [boku-ga zibun$_i$-ni kasi-ta] okane-o nakusite-simat-ta.

  Taro-Top I-Nom self-Dat lend-Past money-Acc lose-end.up-Past

  'Taro$_i$ lost the money I lent him$_i$.'      (Oshima, 2004, (6))

   A second property is that it occurs in subordinate clause and thus it always takes a non-local antecedent. Thus, *zibun* that occurs in a simple clause is not of the emphatic type. Consider (29) and recall the first property. If *zibun* were of the empathic type,

the referent John would be the empathic locus. In the sentence, however, the speaker empathizes with *boku* 'I.' Then, we would have an empathy locus conflict. Such conflict, in fact, does not occur. This means that *zibun* in the matrix clause in (29) is not the empathic type.

(29) John-wa boku-ni zibun-o syoukai-si-ta.

John-Top I-Dat self-Acc introduction-do-Past

'John introduced himself to me.'

This *zibun* would be of the reflexive type that does not require an empathy locus as its antecedent. As (30) indicates, reflexive *zibun* can occur with the first person (the speaker).

(30) Boku-wa zibun-o seme-ta. (= (8))

I-Top self-Acc blame-Past

'I blamed myself.'

A third property of empathic *zibun* is that it is replaceable with a personal pronoun. Compare (31) with (25b): both the personal pronoun *kare* 'him' in (31) and *zibun* 'self' in (25b) refer to the empathy locus *Taro*.

(31) Taro$_i$-wa [ Hanako-ga kare$_i$-ni kasite kure-ta] okane-o tukatte-simat-ta.

Taro-Top Hanako-Nom him-Dat lend Ben-Past money-Acc spend-end.up-Past

'Taro$_i$ has spent all the money that Hanako lend to him$_i$.'

In contrast, the reflexive *zibun* cannot be replaced with personal pronouns. If reflexive *zibun* in (11) is replaced with *kare* 'he' as in (32), the intended reading is not available.

(32) John-wa  Bill-ni   kare-ni-tuite hanasi-ta.

John-Top Bill-Dat him-about     tell-Past

'John$_i$ told Bill about him$_{*i/j}$.'


Let us talk about *zibun* in possessive positions because now we know the similarities and differences between reflexive *zibun* and empathic *zibun*. Kuno (1978) claims that possessive *zibun* is of the empathic type, unless it is NP-internally bound (see references such as Oshima (2004)). In (33), possessive *zibun* is bound from outside of the NP clause. In (34), in contrast, *zibun* is bound NP-internally. The former type of *zibun* has been claimed to be of the empathic type, while the latter one is of the reflexive type.

(33) John-wa  [watasi-to {kare /*zibun}-no kyoutyo.ronbun]-o minna-ni kubat-ta.

John-Top [I-and      {he  / self}-Gen joint.paper]-Acc    all-Dat    distribute-Past
'John$_i$ distributed the joint paper by him$_i$ and myself to all.'

(Takami, 1997: 118 via Oshima, 2004, (11))

(34) John-no   zibun-e-no  tegami

John-Gen self-to-Gen letter

'John's letter to himself'

In (33), the antecedent of the possessor, namely John, is outside of the object NP. If *zibun* were used, this *zibun* is of the empathic type and requires an empathy locus as its antecedent. However, the sentence contains the speaker *watasi* 'I' and this element always empathically outranks other participants. Then, we have an empathy locus conflict. If the personal pronoun *kare* 'he' is used, this element does not require an empathy locus as its

referent. The empathy locus conflict does not occur and the expression is accepted. In (34), in contrast, *zibun* is NP-internally bound by John. This is reflexive *zibun*. This item need not be empathized by the speaker: the speaker might or might not empathize with John.

(35) shows another instance of possessive *zibun*. The sentence should be read under a situation like this: Joe is afraid that a letter that John wrote to him would be seized by the police as proof of his crime. He asked him to go to his home and destroy it.

(35) John-wa  [zibun-no Joe-e-no tegami]-o     kare-no-tame-ni moyasite-{yat/*kure}-ta.

     John-Top [self-Gen Joe-to-Gen-letter]-Acc he-for          burn-Ben-Past

     'John$_i$ burned his$_i$ letter to Joe$_j$ for him$_j$.' (Oshima, 2004, (12) with modification)

In this example, *zibun* is NP-externally bound by John. This *zibun* is of the empathic type and takes the empathy locus as its referent. What is empathized with is the subject John. As the auxiliary verb of the matrix verb, the subject-centered verb *yaru* is allowed, but but the non-subject-centered verb *kureru* is excluded.


## 2.1.2.2   Logophoric *Zibun*

Let us now see the basic properties of logophoric *zibun*. This type of *zibun* is bound to a 'logophoric individual': an individual 'whose speech, thoughts, feelings, or general state of consciousness are reported' (Clements, 1975).[9] Logophoric *zibun* elicits a '*de se* interpretation': the antecedent of anaphor / pronoun has to know that he / she is the

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[9]Although I use the term 'logophoric' for this type of *zibun*, I am not claiming that this element is a 'logophoric pronoun' (Hagège, 1974, Clements, 1975, Culy, 1994, 1997). Logophoric pronouns, found in African languages, are regarded as instances of 'secondary indexicals,' anaphoric expressions that select

reference of the element. Consider (22), repeated here as (36), and the two situations in (37). The scenario of (36) is that John helped Bill. In Situation 1 in (37a), John knows that he helped Bill and he has an idea 'I helped Bill.' In contrast, in Situation 2 in (37b), John is not aware that he helped Bill. What he knows is just that some guy named John helped Bill. (36) with logophoric *zibun* can be used to describe Situation 1, but not Situation 2.

(36) John$_i$-wa [ zibun$_i$-ga Bill-o    tasuke-ta ] to    omot-teiru.

    John-Top self-Nom   Bill-Acc help-Past   Comp believe-Asp.Pres

    'John$_i$ believes that he$_i$ helped Bill.'

(37) a. [Situation 1] John believes: 'I helped Bill.'

    b. [Situation 2] After reading his own biography, amnesic John comes to believe:

       'This guy called John helped Bill.'     (Oshima, 2006, (26) with modification)

If *zibun* is replaced with the personal pronoun *kare* 'he' in (36), the sentence can describe Situation 2 as well as Situation 1, because the personal pronoun *kare* does not require a *de se* interpretation. *Zibun* of this type and personal pronouns are not replaceable.

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*de se* interpretations (Schlenker, 2003). Languages with logophoric pronouns generally have reflexive elements as well. Also, logophoric pronouns obey different syntactic restrictions from ordinary pronouns that are subject to the Binding Principle B (Chomsky, 1981): a pronoun is not bound in its binding domain. Logophoric *zibun* might be analyzed as a logophoric pronoun because logophoric *zibun* allows a local antecedent, so it is not like an ordinary pronoun and several works claim that so-called long-distance reflexives in languages like Icelandic and Japanese are also the instances of secondary indexicals. In this thesis, however, I do not discuss this issue further. What I am claiming here is that logophoric *zibun* has to be separated from reflexive *zibun*, because (a) it is not an anaphor as it does not always require a local antecedent and (b) it always elicits a *de se* interpretation.

Reflexive *zibun* does not need to elicit a *de se* interpretation. (38) with reflexive *zibun* can

be used to describe the situation in which John forgot the fact that he did the job and said

'Who did this bad job? I'll blame the person who did this!'

(38) John-wa zibun-o seme-ta.                                                          (= (7a))

    John-Top self-Acc blame-Past

    'John blamed himself.'

Let me show other properties that logophoric *zibun* has. Logophoric *zibun* does not

have the locality requirement: it allows a non-local subject, as (36) shows.[10] This item has

an Animacy restriction. This restriction is reasonable because inanimate elements cannot

be logophoric individuals. Logophoric *zibun* is not subject-oriented: consider (39).

(39) Hanako-wa musuko$_i$-kara [kyou-no siai-de zibun$_i$-ga kat-ta-koto]-o        kii-ta.

    Hanako-Top son-from     today-Gen game-at self-Nom win-Past-Comp-Acc hear-Past

    'Hanako heard from her son$_i$ that he$_i$ won the game today.'

Imagine the scenario that Hanako's son plays tennis, he came home from a tennis game

and he talked to his mother. In this example, the embedded clause has the complementizer

*koto* and the clause is interpreted as indirect speech.[11] The oblique case element *musuko*

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[10]Giorgi (2007) reports that non-locally bound anaphors cross-linguistically have the obligatoriness of

the *de se* interpretation.

[11]Sells (1987) mentions that the *koto* complementizer and the *to* complementizer yield different speech

types, giving the pair example in (i) and (ii). The acceptability of the oblique cased element *Takasi* reading

in (i) with the *koto* complementizer is lower than the one in (ii) with the *to* complementizer. He claim that

"the *to*-marked clause is more naturally understood as representing Takasi's speech" (Sells, 1987, 454).

'son' is the reporter of the embedded clause, that is, the logophoric individual. It binds logophoric *zibun* in the embedded clause. Also, logophoric *zibun* is not feature-specified.

Logophoric *zibun* does not have the empathy restriction, unlike empathic *zibun*. Recall that empathic *zibun* cannot be a coargument of a first person pronoun or speaker, because empathic *zibun* requires an empathic locus as its antecedent but the first person or speaker empathically outranks other participants. In (40), *zibun* is of the logophoric type. It can be a coargument of *boku*, first person 'I.' On the other hand, in (41), *zibun* is of the empathic type. It cannot be a coargument of the first person.

(40) John-wa  [boku-ga zibun-o  but-ta]  koto-o  mada uran-deiru.

John-Top [I-Nom   self-Acc hit-Past] fact-Acc still   resent-Asp.Pres

'John$_i$ still resents that I hit him$_i$.'                    (Oshima, 2004, (5))

(41)*John-wa  [boku-ga zibun-ni kasi-ta]   okane-o   nakusite-simat-ta.      (= (28))

John-Top [I-Nom   self-Dat lend-Past] money-Acc lose-end.up-Past

'John$_i$ lost the money I lent him$_i$.'

*Zibun* in a possessive position and in a coordinate structure does not elicit a *de se* interpretation as in (42a) and (42b), respectively. So, *zibun* in these positions is not of the

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(i) ?? Taro-wa  Takasi$_i$-kara  [Yosiko-ga    zibun$_j$-o  kirat-teiru **koto**]-o    kii-ta.

Taro-Top Takasi$_i$-from [Yosiko-Nom self$_i$-Acc$_i$ be-hating  Comp]-Acc hear-Past

'Taro heard from Takasi$_i$ that Yosiko hated him$_i$.'

(ii) Taro-wa  Takasi$_i$-kara  [Yosiko-ga   zibun$_j$-o  kirat-teiru] **to**    kii-ta.

Taro-Top Takasi$_i$-from Yosiko-Nom self$_i$-Acc$_i$ be-hating   Comp hear-Past

'Taro heard from Takasi$_i$ that Yosiko hated him$_i$.'    (Sells, 1987, (30,31) with small modification)

I, however, believe that the oblique cased element in (39) is naturally interpreted as the antecedent of *zibun*.

logophoric type.

(42) a. John-wa   zibun-no tomodati-o seme-ta.

John-Top self-Gen friend-Acc blame-Past

'John blamed his friend (without realizing that the guy who was blaming was

his friend).'

b. John-wa   [Mary to   zibun]-o seme-ta.

John-Top Mary   and self-Acc blame-Past

'John blamed Mary and himself (without knowing whose Mary worked with).'

What we have observed so far is summarized in the chart in (43).

(43)

|  | reflexive | non-reflexive | |
|---|---|---|---|
|  |  | empathic | logophoric |
| feature unspecified | yes | yes | yes |
| Animacy restriction | yes | yes | yes |
| subject orientation | yes | yes | no |
| local antecedent | requires | no | yes |
| non-local antecedent | no | requires | yes |
| pronoun replaceability | no | yes | no |
| *de se* interpretation | no | no | yes |
| bound to | co-argument subject | empathy-locus | logophoric individual |

### 2.1.2.3   Subject-orientation "counterexamples"

Several previous works (Hara, 2001, 2002, Oshima, 2007, among others) have reported "counterexamples" in which *zibun* refers to a non-subject antecedent, as in (44)-(46). Recall that *zibun* is known as being subject-oriented. We have seen above that reflexive *zibun* and empathic *zibun* obey this restriction, but logophoric *zibun* does not. I propose that *zibun* in these examples is of the third type, and thus these examples are not counterexamples because antecedents of logophoric *zibun* are not necessarily subjects.

It is claimed that topic elements can be antecedents of *zibun* even in a non-subject position. In the conversation in (44), Bill is the topic: the question sentence in (a) is about Bill. In the answer sentence (b), Bill is interpreted as the antecedent of *zibun*, though this element is not the subject in the sentence.

(44) a. Dousite Bill$_i$-wa okot-teiru-no

     why     Bill-Top angry-Asp.Pres-Q

     'Why is Bill angry?'

b. Sore-wa-ne, John-ga   <u>Bill$_i$-ni</u> [Mike-ga  zibun$_i$-o kenasi-ta-      koto]-o

     that-Top-Prt John-Nom Bill-Dat Mike-Nom self-Acc speak.ill.of-Past Comp-Acc

     tuge-ta-kara-da-yo.

     tell-Past-because-Cop-Prt

     'That's because John told Bill that Mike spoke ill of him.'

I propose that *zibun* in this example is of the logophoric type. Bill is the logophoric individual whose feeling, in this case, the anger, is reported. Therefore, this *zibun* is

logophoric *zibun* and it is not subject-oriented.[12]

A second case of apparent Subject orientation counterexample is that an oblique cased element can be an antecedent of *zibun*: for example, in (45), the oblique cased *Taro* is interpreted as the antecedent of *zibun*.

(45)  Hanako$_i$-wa Taro$_j$-kara [zibun$_{i/?j}$-ga kat-ta-koto]-o     kii-ta.

Hanako-Top Taro-from self-Nom     win-Past-Comp-Acc hear-Past

'Hanako heard from Taro that he had won.'           (Kameyama, 1984, (8))[13]

As I mentioned earlier in (39), an oblique cased element can function as the reporter of the embedded clause in this construction. In (45), *Taro* is the logophoric individual that binds logophoric *zibun*. Then, this *zibun* is not subject to the Subject orientation property.

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[12]In Chinese as well, *ziji* 'self' that is subject-oriented (as shown in (i)) can be bound by a non-subject element if it is a topic element, as (ii) demonstrates.

(i)  Zhangsan$_i$ songgei Lisi$_j$ yizhang ziji$_{i/*j}$ de  xiangpian.

Zhangsan  give     Lisi  one-CL self    DE picture

'Zhangsan$_i$ gave Lisi$_j$ a picture of himself$_{i/*j}$.'           (Pollard and Xue, 2001, (3))

(ii)  [Zhangsan$_i$ neiyang  zuo] zhihui    dui    ziji$_i$ buli.

Zhangsan   that-way di    only-will toward self not-beneficial

'Zhangsan$_i$ acting that way won't do him$_i$ any good.'           (Pollard and Xue, 2001, (33))

I am not claiming that this *ziji* is also of the logophoric type. Also, I cannot explain the behavior of *ziji* here. The account in Pollard and Xue (2001) is that *ziji* can refer to discourse prominence and that topic elements are discourse prominence.

[13]The judgement is from Kameyama (1984). She reports that the topic element *Hanako* reading and the oblique cased element *Taro* reading are different in their acceptability, but these two readings are equally acceptable for me.

A third case is so-called 'backward binding.'[14] In the examples we have observed so far, the antecedent syntactically binds *zibun*. In contrast, *zibun* in (46) refers to an element that syntactically does not bind *zibun*. The antecedent is in an object position, not in a subject position.

(46) [Zibun$_i$-ga gan-dearu-toiu    sindan]-ga      Mitiko$_i$-o zetubou-e      oiyat-ta.

   self-Nom   cancer-Cop-Comp evaluation-Nom Mitiko-Acc desperation-to drive-Past

   'The evaluation that she$_i$ has cancer drove Mitiko$_i$ to desperation.'

<div align="right">(Kameyama, 1984, (7), originally from McCawley, 1976)</div>

Note that *zibun* in (46) occurs with a psych-verb *zetubou-e oiyaru* 'drive someone to despair' and the antecedent Mitiko has the Experiencer role. I claim that *zibun* in (46) is also logophoric *zibun*. I assume psych-verbs, or more generally verbs that describe mental processes, facilitate *de se* interpretations: Experiencers are aware of the fact that they are involved in actions /events. Then, Mitiko in (46) is regarded as the logophoric individual. Compare (46) to the unacceptable sentence (47). The structures of the two sentences look similar.[15]

(47) ?* [Zibun$_i$-ga gan-dearu-toiu    sindan]-ga      Mitiko$_i$-ni todoi-ta.

   self-Nom   cancer-Cop-Comp evaluation-Nom Mitiko-Acc arrive-Past

   'The evaluation that she$_i$ has cancer was delivered to Mitiko$_i$.'

---

[14]I will come back to backward binding of *zibun* in Section 5.1.

[15]Postal (1971) and Belletti and Rizzi (1988, 1991) assume that psych-verbs undergo movement, as I will mention in Section 5.1. If this is true, the underlying structure of (46) would not be the same with the one of (47).

The latter example does not contain a psych-verb. It, instead, has the verb *todoku* 'arrive.'

In this construction, Mitiko is not an Experiencer or the logophoric individual. So, this is

not a possible antecedent of *zibun*. The sentence is excluded because *zibun* cannot find its

antecedent. It seems that types of verb affect the acceptability of backward binding. The

relation between types of verbs and reflexive elements will be discussed in Chapter 5.

We have reviewed three cases of "counterexamples" in which *zibun* does not obey

Subject-orientation, one of the well-known properties of *zibun*. Although the reflexive

type of *zibun* obeys this condition, logophoric *zibun* does not. Because *zibun* in these ex-

amples are not of the reflexive type, these examples are not counterexamples. Although

*zibun* used in these structures have been often confounded with the reflexive type of *zi-

bun*, the separation of the non-reflexive types from the reflexive type of *zibun* is very

significant.

### 2.1.2.4  *Zibun* in other usages

Before closing this section, let us see other cases in which *zibun* is obviously used

in non-reflexive contexts. First, observe (48)-(50). In (48), *zibun* refers to the speaker of

the sentence. *Zibun* in (49) also refers to the speaker (the first person 'I'). In (50), *zibun*

refers to the second person 'you.'

(48) Minna-no-mae-de      sensei-ga    zibun-o  home-ta.

everyone-Gen-front-in teacher-Nom self-Acc praise-Past

'The teacher praised me$_{speaker}$ in front of everyone.'

(49) Zibun-ga iki-masu.

     self-Nom go-Pol.Pres

     'I would go.'

(50) Watasi-zyanakute zibun-ga warui-n-zyanai!

     I-Neg              self-Nom bad-it is that

     'It is you, not me, who is bad.'           (Based on Tsujimura (1996, 158))

My assumption here is that *zibun* in the speaker (first person) usage in (48) and (49) is logophoric *zibun*.[16] *Zibun* in this usage has to elicit a *de se* interpretation: the speaker has to know that the anaphor refers to him / her. As for the second person usage in (50), I do not have any account yet, but what is clear now is that *zibun* in this usage does not need to induce a *de se* reading. So, this *zibun* is not the logophoric type.

    In (51a-c), *zibun* in each case is used as a common noun that means 'identity' or 'ego.' This element is not any of the reflexive, empathic, and logophoric types.

(51) a. zibun-sagasi   -o    suru

        identity-search -Acc do.Pres

        'to find one's own identity'

---

[16]Oshima (2009, 81) assumes that 'logophoric *zibun* is semantically equivalent to a first person pronoun (e.g., English *I*, Japanese *watasi*), except that the former is interpreted with respect to a secondary context associated with a reported utterance/attitude, and the latter, as a primary indexical, is interpreted with respect to the primary context of utterance.'

Also, Pollard and Xue (2001) reports that *ziji* in Chinese, that has the function as a reflexive anaphor as well, has the first-person or narrator usage and that *ziji* in that usage refers to 'the individual whose point of view is being reflected' (333).

b. hontou-no zibun

   reality-Gen identity

   'true identity'

c. mou hitori-no zibun

   another-Gen identity

   'alter ego'

Also, in (52), *zibun* is in the 'arbitrary' use: it does not have any specific reference.[17] Here again, the element is not of the three types.

(52) Tatoe  zibun-no ie-ga      taore-zu,      zibun-no ie-ga      moe-tei-naku-temo,

   even.if self-Gen house-Nom collapse-Neg self-Gen house-Nom burn-Asp-Neg-though

   tonari-no ie-kara det-a        hi-o      hootte-oke-ba, zibun-no ie-mo

   next house-from come.out-Past fire-Acc leave-if      self-Gen house-too

   moete-simai-masu.

   burn-end.up-Polite.Pres

   'Even if your house does not collapse or catch a fire (because of an earthquake),

   your house too would end up burning down if (you) don't do anything to a fire

   starting from the neighborhood.'                    (Oshima, 2009, Footnote 3)

Next, let us see two adverbial idioms that consist of *zibun* and a postposition.[18] A first idiom is *zibun-de* 'by oneself' given in (53).

---

[17]The term is from Huang (2000) and Oshima (2004, 2009).

[18]Recall that we have seen on page 14 that Japanese has verbal idioms that consist of *zibun* and a verb. While I regard *zibun* in verbal idioms as the reflexive type (see the argument there), I assume that *zibun* in adverbial idioms that we are now looking at is not of the same type.

(53) John-wa  zibun-de kabe-o     nut-ta.

John-Top self-by    wall-Acc paint-Past

'John painted the wall by himself.'

This idiom functions like an adverb, as does the English *himself* in (54). Note that this *himself* has a different function from *himself* in *John likes himself*. While the latter *himself* is categorized as a reflexive anaphor, the one in (54) is not.

(54) John has painted the house himself.                    (Gast and Siemund, 2006, (11))

Gast and Siemund (2006) call *zibun-de* in (53) and *himself* in (54) 'actor-oriented intensifiers.' These are used 'to emphasize that the action described by a sentence is performed by the subject referent, and not by some other person' (Gast and Siemund, 2006, 13). This type of intensifier relates the proposition that the intensifier occurs with to alternative propositions in which someone else other than the actor (subject) does the same thing, and it emphasizes agentive involvement of the actor. For example, (54) with the intensifier *himself* means 'John did not delegate the painting of the house to someone else and John himself painted the house.' It also contrasts with alternative propositions such as 'Mary has painted the house.' The sentence does not simply mean 'John has painted the house.' (53) that contains the idiom *zibun-de* 'by oneself' in Japanese also has such additional meaning.[19]

---

[19]The *-de* part of *zibun-de* is the instrumental postposition. Actor-oriented intensifiers, however, do not necessarily require instrumental markers. In (54), English *himself* does not have any preposition, but it functions as an actor-oriented intensifier. Also, Italian uses the ablative case marker *da* 'from' as in (i).

This idiom is subject to an Animacy restriction: it can occur with an animate subject, as in (55a) and the above examples.[20] In contrast, it cannot occur with an inanimate subject, such as *ki* 'tree' in (55b). This restriction would be attributed to the fact that *zibun* has an Animacy restriction.

(55)  a.  John-ga    zibun-de kabe-o    nut-ta.

John-Nom self-by    wall-Acc paint-Past

'John has painted the wall himself.'

---

(i)  Olga fa    lezione ai suoi bambini [$_{PP}$ **da**    sé].

Olga does lecture  to her   children     from  Ref

'Olga teaches her children herself.'                              (Gast and Siemund, 2006, (48))

[20]The idiom *zibun-de* cannot occur with *zibun* in the speaker usage, even if a subject is animate. In (i), *zibun* refers to the speaker. If the idiom is inserted to the sentence as in (ii), then *zibun* cannot be interpreted as referring to the speaker. *Zibun* in (ii) refers to the subject *sensei* 'teacher' inducing a reflexive reading. This would be due to the locality requirement of this idiom.

(i)  Minna-no-mae-de      sensei-ga    zibun-o  home-ta.                              (= (48))

everyone-Gen-front-in teacher-Nom self-Acc praise-Past

'The teacher praised me$_{speaker}$ in front of everyone.'

(ii)  Minna-no-mae-de      sensei-ga    zibun-de zibun-o  home-ta.

everyone-Gen-front-in teacher-Nom self-by    self-Acc praise-Past

*'The teacher praised me$_{speaker}$ by himself in front of everyone.'

'The teacher$_i$ praised himself$_i$ by himself in front of everyone.'

b. * Ki-ga       zibun-de taore-ta.

   tree-Nom self-by    fall-Past

   'The tree fell by itself.'

The idiom *zibun-de* has an interesting property: it has a locality requirement. As we have seen above, *zibun* can refer to either local or non-local subject: in (56a), *zibun* can refer to either the matrix subject or the embedded subject.[21] Once the adverbial idiom *zibun-de* is introduced in the embedded clause as in (56b), then the local (embedded) subject reading is obligatorily induced. In contrast, once the idiom is inserted into the matrix clause as in (56c), the reading in which *zibun* in the embedded clause refers to the matrix subject Mary is preferred.[22]

(56) a. Mary$_j$-wa [John$_i$-ga   zibun$_{i/j}$-o seme-ta]     to      omot-ta.

   Mary-Top John-Nom self-Acc   blame-Past Comp think-Past

   'Mary thought that John$_i$ blamed himself$_i$.'

   'Mary$_j$ thought that John blamed her$_j$.'

   b. Mary$_j$-wa [John$_i$-ga   zibun-de zibun$_{i/*j}$-o seme-ta]     to      omot-ta.

   Mary-Top John-Nom self-by    self-Acc    blame-Past Comp think-Past

   'Mary thought that John$_i$ blamed himself$_i$ on his$_i$ own.'

   *'Mary$_j$ thought that John blamed her$_j$ on her$_j$ own.'

----

[21] Note that I am assuming that *zibun* in the non-locally bound case is not of the reflexive type.

[22] The sentence (56c) sounds not so natural. I guess this is because the verb *omou* 'think' is lexically implies that the thinking action is performed by the subject and that action cannot be performed by someone else. So, the meaning of the verb would conflicts with the meaning of the idiom that emphasizes that the action is performed by the subject, not by someone else.

c. Mary$_j$-wa [John$_i$-ga zibun$_{*i/j}$-o seme-ta] to zibun-de omot-ta.

Mary-Top John-Nom self-Acc blame-Past Comp self-by think-Past

∗'Mary thought that John$_i$ blamed himself$_i$ on his$_i$ own.'

'Mary$_j$ thought on her$_j$ own that John blamed her$_j$.'

We do not get a 'mixed reading' such as a reading in which *zibun* in the embedded clause

refers to the local subject, while *zibun* in the idiom refers to the matrix subject. It has been

discussed that *zibun* that multiply occurs in one sentence has a unique referent (Kuno and

Kaburaki, 1977). In (56b), *zibun* of the two instances refers to the embedded subject John.

In (56c), in contrast, the two instances of *zibun* refer to the matrix subject Mary.

Also, interestingly, as noted in Oshima (1979), originally discussed in McCawley (1972),

even an infelicitous reflexive interpretation in (57a) that repeats (6b) becomes acceptable,

when this idiom is added as in (57b). I will consider what causes the different acceptability

between (57a) and (57b) in Section 5.2.2. The observation in (56) and (57) suggests that

the locality requirement of this idiom is very strict.

(57) a. ∗ John-wa zibun-o ket-ta. (= (6b))

John-Top self-Acc blame-Past
'John kicked himself.'

b. John-wa zibun-de zibun-o ket-ta.

John-Top self-by self-Acc blame-Past
'John kicked himself on his own.'

A second *zibun* idiom is *zibun-kara* 'voluntarily.' The *zibun* part literally means

*self* and and the *-kara* part is a postposition that means 'from,' but the idiom phrase lacks

both meanings. I do not categorize this idiom as an actor-oriented intensifier, because alternative propositions are not related to the proposition in question, unlike the case of the *zibun-de* idiom. This idiom just marks volitionality of the subject (or actor, agent). Then, it is predicted that this idiom is compatible with only animate subjects who can have volition. This prediction is borne out: (58a) with the volitional subject John is acceptable, while (58b) with the non-volitional subject *ki* 'tree' is not.[23]

(58) a. John-ga    zibun-kara soko-e   it-ta.

    John-Nom voluntarily there-to go-Past

    'John voluntarily went there.'

   b. * Ki-ga      zibun-kara taore-ta.

     tree-Nom voluntarily fall-Past

    'The tree voluntarily fell.'

One interesting property of this idiom is that it can be used interchangeably with an adverb *mizukara*, which I will review in Section 2.4.3. Both *zibun-kara* and *mizukara* add volitionality of subject that occurs in the same clause as the idiom. For example, in (59a), the idiom occurs in the embedded clause and it shows the volitionality of the embedded subject John in his going event. In (59b), on the other hand, the idiom occurs in the matrix clause, and it shows the volitionality of the matrix subject Mary in her thinking event.

(59) a. Mary$_i$-wa [ John$_j$-ga    zibun-kara soko-e it-ta    ] to    omot-ta.

    Mary-Top   John-Nom voluntarily there   go-Past   Comp think-Past

    'Mary thought that John voluntarily went there.

---

[23]The Animacy restriction of *zibun* might be also related here.

b. Mary$_i$-wa [ John$_j$-ga    soko-e it-ta    ] to    zibun-kara omot-ta.

   Mary-Top   John-Nom there   go-Past   Comp voluntarily think-Past

   '(No one told her that, but) Mary voluntarily thought that John went there.

All the instances of *zibun* reviewed in this subsection: the first (subject) person, second person, common noun, arbitrary and adverbial idiom usages, are not of the reflexive type that occurs in the reflexive relation or occurs as a coargument of a verb with its antecedent. I will exclude *zibun* in these usages, as well as empathic *zibun* and logophoric *zibun*, from my discussion in the later chapters.

## 2.1.3   Summary

In this section, I have reviewed properties and distribution of reflexive *zibun* and apparent-reflexive *zibun*, namely empathic *zibun* and logophoric *zibun*. I have separated the reflexive type of *zibun* from the other types and shown their properties. The summary of our observations is given in the chart in (60) .

(60) Three types of *zibun* under my proposal

|  | reflexive | empathic | logophoric |
|---|---|---|---|
| feature unspecified | yes | yes | yes |
| Animacy restriction | yes | yes | yes |
| subject orientation | yes | yes | no |
| local antecedent | requires | no | yes |
| non-local antecedent | no | requires | yes |
| pronoun replaceability | no | yes | no |
| *de se* interpretation | no | no | yes |
| bound to | co-argument subject | empathy-locus | logophoric individual |

Reflexive *zibun* takes a local subject coargument as its antecedent. On the other hand, empathic *zibun* takes empathic locus and logophoric *zibun* takes logophoric individual as its antecedent. The latter two types of *zibun* requires / can take non-local antecedents.[24]

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[24]Lebeaux (1984/1985, 349) reports that a non-local anaphor (an anaphor that is bound by a non-local antecedent) in languages has the following four properties:

(a) allows split antecedent ($\leftrightarrow$ local anaphor: requires unique antecedent)

(b) free variation with pronouns ($\leftrightarrow$ local anaphor: complementary distribution with pronouns)

(c) c-commanded not necessary ($\leftrightarrow$ local anaphor: necessary c-command of antecedent)

(d) both non-sloppy and sloppy identity readings under VP deletion ($\leftrightarrow$ local anaphor: only a sloppy reading under VP deletion)

The two types of non-reflexive *zibun* have distinct properties: only empathic *zibun* can be replaceable with personal pronouns. Only logophoric *zibun* elicits a *de se* reading. Therefore, I conclude that there are three types of *zibun*. The patterns that an apparent-reflexive *zibun* shows have been thought as irregular patterns of reflexive *zibun*. They are, however, just regular patterns of the non-reflexive type of *zibun*. I have also considered *zibun* with a first person (speaker) antecedent, *zibun* with a second person antecedent, and *zibun* used in adverbial idioms. *Zibun* in these usages are also not reflexive *zibun*.

In the later chapters, I focus only on reflexive *zibun* that requires a local coargument antecedent, has Animacy restriction and is subject-oriented. I will not discuss empathic *zibun*, logophoric *zibun* and *zibun* used in other usages in the later chapters.

---

Although the empathic and logophoric types of *zibun* allow non-local antecedents, they do not share all the properties. As we have seen, empathic *zibun* is in free variation with pronouns and logophoric *zibun* does not have to be c-commanded by its antecedent (and allows backward binding). However, empathic *zibun* and logophoric *zibun* (the reflexive type too) do not allow split antecedents: for example, in (i), logophoric *zibun* cannot refer to the matrix subject John and the embedded subject Bill, though it can refer to each of them separately. Also, the two types of *zibun* allow only sloppy identity readings in VP-deletion constructions. In (ii) in which empathic *zibun* is used, the non-sloppy reading is not allowed.

(i) John-wa   Mary-ni   [Bill-wa [zibun-ga inu-o     tasuke-ta] to      omot-teiru]    to     it-ta.

John-Top Mary-Dat Bill-Top self-Nom dog-Acc rescue-Past Comp think-Asp.Pres Comp say-Past

'John$_i$ said to Mary$_j$ that Bill$_k$ thinks that self$_{i/*j/k/*i+k}$ rescued the dog.'

(ii) Taro$_i$-wa [ Hanako-ga     zibun$_i$-ni kasi-ta]  okane-o     mudanisi,       Jiro-mo sou-si-ta.

Taro-Top   Hanako-Nom self-Dat  lend-Past money-Acc waste.up-end.up Jiro-too so-do-Past

'Taro$_i$ wasted up all the money that Hanako lend to him$_i$, and Jiro did so too.' (= Jiro$_j$ wasted up all the money that Hanako lend to him$_{*i/j}$)

## 2.2  *Zibun-zisin*

In this subsection, I focus on another type of element *zibun-zisin* 'self-self.' Like *zibun*, there are both reflexive and non-reflexive types of *zibun-zisin*. Here, I would like to claim that there are four types of *zibun-zisin*: the reflexive anaphor *zibun-zisin*, the intensified form of reflexive *zibun*, the intensified form of empathic *zibun* and the intensified form of logophoric *zibun*. I show that each type of *zibun-zisin* obeys different constraints. Also, I consider if *zibun-zisin* has a speaker usage and if it occurs in idioms, like *zibun*.

### 2.2.1  Reflexive *Zibun-zisin*

*Zibun-zisin* 'self-self' has been acknowledged as an anaphor that shares many properties with *zibun* 'self.' As (61a) and (61b) show, this item is not feature-specified: either a male antecedent John or a female antecedent Mary is accepted.[25] It is subject-oriented: only the subject John, not the direct object Bill, is the possible antecedent, as (62) indicates. It has an Animacy restriction: the animate subject John can be the antecedent of *zibun* in (63a), while the inanimate subject *sinbun* 'newspaper' cannot be the antecedent in (63b). In these points, *zibun-zisin* has exactly the same properties as *zibun*, and this naturally follows if we consider the composition of *zibun-zisin*: it contains *zibun*.

(61)  a. John-wa  zibun-zisin-o seme-ta.

   John-Top self-self-Acc blame-Past

   'John blamed himself.'

---

[25]In the examples in this section, I use verbs that felicitously occur with the reflexive type of *zibun*. As is *zibun* in (6b), the anaphor *zibun-zisin* is not compatible with a certain type of verbs such as *keru* 'kick.'

b. Mary-wa   zibun-zisin-o seme-ta.

Mary-Top self-self-Acc blame-Past

'Mary blamed herself.'

(62) John-wa   Bill-ni    zibun-zisin-ni-tuite hanasi-ta.

John-Top Bill-Dat self-self-about       tell-Past

'John$_i$ told Bill$_j$ about himself$_{i/*j}$.'

(63) a. John-wa   zibun-zisin-o home-ta.

John-Top self-self-Acc praise-Past

'John praised himself.'

b. * Sono sinbun-ga       kaze-ni zibun-zisin-o hiroge-ta.

 that   newspaper-Nom wind-in self-self-Acc unfold-Past

'The newspaper unfolded itself in the wind.'

It has been claimed that *zibun-zisin* has the locality requirement, contrary to *zibun* that

allows either a local or a non-local antecedent as we have seen in the last subsection.[26] In

(64), only the embedded subject Mary is the possible antecedent (cf. (1) with *zibun*).

(64) John$_i$-wa Sue$_j$-ni [Mary$_k$-ga zibun-zisin$_{*i/*j/k}$-o seme-ta]    to    it-ta.

John-Top Sue-Dat Mary-Nom self-self-Acc       blame-Past Comp say-Past

'John told Sue that Mary blamed herself.'

Mihara and Hiraiwa (2006) claim that there are two types of *zibun-zisin* as in (65).

What we have observed above is of the second type: the reflexive anaphor *zibun-zisin* in

---

[26]Recall that, under my classification, non-locally bound *zibun* is not of the reflexive type. Locally bound

*zibun*, in contrast, might be of the reflexive, empathic or logophoric types.

(65b). The other type is *zibun-zísin* in (65a) that is used as an intensified form of *zibun*. What does the *-zisin* '-self' affix do?

(65)  a.  zibun-zísin

b.  zibunzisin  (Mihara and Hiraiwa, 2006, 78 (49))

Many studies (Nakamura, 1989, Hara, 2001, 2002, Mihara and Hiraiwa, 2006, among others) have claimed that the *-zisin* affix '-self' has a function as an intensifier, like *himself* in 'he himself' in the English example (66).

(66)  He himself came to the party.

Gast and Siemund (2006) claim that items like *himself* in (66) 'evoke alternatives of a specific type which are paradigmatically opposed to the referent of the NP they relate to' (Gast and Siemund, 2006, (5)). The sentence (66) means 'He, not someone else, came to the party.' König and Moyse-Faurie (2010) report that there is no established categorical label for these items, and different analyses use different labels such as 'emphatics,' 'appositive/adverbial reflexives,' 'focus particles,' and 'intensifiers.' In this thesis, I call these items 'adnominal intensifiers.'[27] I claim that the *-zisin* affix is an adnominal intensifier in Japanese. I render it as *-zísin* when it functions as the adnominal intensifier, because it

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[27]The form of this type of intensifier differs depending on languages. Some languages use the same form as reflexive element: for example, as in (66), English uses *himself* that is the same form as the reflexive element as in *John likes himself*. In contrast, in other languages, an adnominal intensifier and a reflexive element have different forms. For example, in German, the adnominal intensifier (I use the gloss SELF following Gast and Siemund (2006)) is *selbst* as in (i), while the reflexive element is *sich* 'self' as in (ii).

often carries stress, and gloss the affix as '-Self' (with capital S) for convenience.[28] This intensifier can attach to animate nouns such as *daitouryou* 'president' in (67) or names such as John in (68a), and it adds a meaning like contrast. Compare (68a) to (68b): in the former case, the subject (agent) John is contrasted with alternative agents.

(67) Daitouryou-zísin-ga sengensi-ta.

president-Self-Nom declare-Past
'The President himself (not someone else) declared.'

---

(i) [Der Präsident selbst /*sich ] eröffnete die Sitzung.

Det president SELF / Ref    opened   the meeting
'The president himself opened the meeting.'

(ii) Johann mag sich /*selbst.

John    likes Ref / SELF
'John likes himself.'                                    (Gast and Siemund, 2006, (7,8))

In addition to the adnominal intensifier *-selbst* and the reflexive *sich*, German has the anaphor *sich selbst* 'selfself' that consists of these two items. Japanese shows the exact same pattern: the adnominal intensifier *-zisin*, the reflexive *zibun*, and *zibun-zísin*.

[28]We can put stress (indicated in capital letters) not only on the adnominal intensifier part as in (i), but also on the host noun, namely, *zibun* too as in (ii). The two sentences have similar readings.

(i) John-ga   zibun-ZISIN-o seme-ta.

John-Top self-Self-Acc   blame-Past
'John blamed himself, not someone else.'

(ii) John-ga   ZIBUN-o seme-ta.

John-Top self-Acc   blame-Past
'John blamed himself, not someone else.'

(68) a. John-zísin-ga     it-ta.

       John-Self-Nom go-Past
       'John himself (not someone else) went.'

   b. John-ga     it-ta.

       John-Nom go-Past
       'John went.'

I propose that when this affix is attached to reflexive *zibun* in an object position, it can add

a 'contrary-to-expectation-of-identity-of-arguments' meaning: *zibun-zísin* expresses that

the identity between subject (antecedent) and object (*zibun*) is not expected or surprising.

For example, consider (69) under a situation like the following: John is a guy who always

blames others calling the kettle black. The speaker of this sentence has not expected that

John blamed himself and thought 'What? He blamed himself, not to someone else!'

(69) John-ga     zibun-zísin-o seme-ta.

   John-Nom self-Self-Acc blame-Past
   'John blamed himself, not someone else.'

This intensifier affix can attach to personal pronouns too : for example, in (70), it

attaches to the personal pronoun *kare* 'him' and creates *kare-zísin* 'he himself.'

(70) John$_i$-ga     kare$_j$-zísin-o   hihan-si-ta.

   John-Nom him-Self-Acc criticism-do-Past
   'John$_i$ criticized him$_j$, not someone else.'          (Nakamura, 1989, (2c))

As we have already seen on pages 16, Japanese has one type of anaphor that consists of a pronoun and the *-zisin* affix, such as *kare-zisin* in (71). Interestingly, the references of *kare-zísin* in (70) and *kare-zisin* in (71) differ.

(71) John$_i$-ga     kare-zisin$_i$-o  hihan-si-ta.

John-Nom him-self-Acc criticism-do-Past

'John$_i$ criticized himself$_i$.'

Nakamura (1989) shows that different restrictions apply to the two types of *kare-zisin*. *Kare-zísin* in (70) is the intensified form of the personal pronoun *kare* 'him.' We get the reading in which the pronoun *kare* refers to a certain male, not John, and this pronoun is intensified. On the other hand, *kare-zisin* in (71) is an anaphor that requires a local antecedent: it takes the subject John as its antecedent.

I agree with Mihara and Hiraiwa's proposal that there are two types of *zibun-zisin* as in (65): the intensified form of *zibun* (*zibun-zísin*) and the reflexive anaphor *zibun-zisin*. The two forms of *zibun-zisin* yield different meanings. In (72), if the element is read as the intensified form of *zibun*, then the sentence means 'John criticized himself, not someone else.' In contrast, if it functions as the reflexive anaphor, then the sentence just means 'John criticized himself.' The former *zibun-zísin* has an additional contrastive or contrary-to-expectation meaning, contrary to the latter case.[29][30]

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[29]As Tonia Bleam points out to me, there might be only one type of *zibun-zisin*, and *zibun-zísin* is the form when the anaphor takes the contrastive stress on the affix part. That is, the two forms are the two usages of one anaphor. In this thesis, however, I assume that *zibun-zísin* is the intensified form of *zibun*, following Mihara and Hiraiwa (2006).

[30]It has been claimed that forms that bear intensifiers, such as *se stesso* 'self same' in Italian, are all anaphors that require a local antecedent (Higginbotham, 1985, Hellan, 1988, Burzio, 1991, among others).

(72) John-ga    [zibun-zisin]-o hihan-si-ta.

John-Nom self-self-Acc    criticism-do-Past

*zibun-zísin* → 'John_i criticized himself_i, not someone else.'

*zibun-zisin* → 'John_i criticized himself_i.'

However, I argue that Mihara and Hiraiwa's analysis is not sufficient, because there are three types of *zibun* that the adnominal intensifier can attach to. My claim is that there are four types of *zibun-zisin*: two types of reflexive *zibun-zisin* (the anaphor *zibun-zisin* and the intensified form of reflexive *zibun*) and two types of non-reflexive *zibun-zisin* (the intensified forms of empathic *zibun* and logophoric *zibun*).

### 2.2.2   Non-reflexive *Zibun-zisin*

Previous studies do not assume the non-reflexive types of *zibun-zisin* and they just assume that there is only one type of *zibun-zisin*: anaphor that requires a local antecedent. These studies point out some "counterexamples" of the locality requirement of *zibun-zisin*. Here, I argue that these "counterexamples" are not counterexamples at all. *Zibun-zisin* used in these examples are not of the reflexive type of *zibun-zisin* but of the non-reflexive types: namely the intensified form of empathic *zibun* and logophoric *zibun*. In the following subsections, I show what empathic *zibun-zisin* and logophoric *zibun-zisin* are and why "counterexamples" are not counterexamples.

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Under my assumption in this thesis, reflexive anaphors always take a coargument (local) antecedent, both when they bear an intensifier (as in the case *zibun-zísin*) and when they do not take intensifiers (*zibun*). The presence of intensifiers does not say anything about locality requirement of anaphor.

### 2.2.2.1    Empathic *Zibun-zisin*

An example of the intensified form of *zibun* in the empathic use (let us call this type of *zibun-zisin* empathic *zibun-zísin*) is given in (73).

(73)  Taro$_i$-wa [ Hanako-ga    zibun-zísin$_i$-ni kasite kure-ta]  okane-o     tukatte-simat-ta.

Taro-Top   Hanako-Nom self-Self-Dat   lend   Ben-Past money-Acc spend-end.up-Past

'Taro$_i$ has spent all the money that Hanako lent to him$_i$.'

Recall what properties empathic *zibun* has: it is bound by the empathic locus (the participant that the speaker empathizes with or identifies with most), it cannot be a co-argument of a first person pronoun, and it can be replaced with a personal pronoun. Empathic *zibun-zísin* has the same properties, as (74a) and (74b) show.

(74)  a. * Taro$_i$-wa [boku-ga zibun-zísin$_i$-ni kasi-ta]    okane-o     nakusite-simat-ta.

Taro-Top   I-Nom   self-Self-Dat   lend-Past money-Acc lose-end.up-Past

'Taro$_i$ lost the money I lent him$_i$.'                                              (cf. (28))

b.  Taro$_i$-wa [ Hanako-ga    kare-zísin$_i$-ni kasite kure-ta]  okane-o     tukatte-simat-ta.

Taro-Top   Hanako-Nom him-Self-Dat lend   Ben-Past money-Acc spend-end.up-Past

'Taro$_i$ has spent all the money that Hanako lent to him$_i$.'

In addition to these properties, empathic *zibun-zísin* has another property that empathic *zibun* lacks: it adds a contrastive meaning, because the *-zisin* part is the adnominal intensifier. Compare (73) to (75) that repeats (25b): the *zibun* part in both cases are of the empathic type. The former sentence has a contrastive meaning due to the intensifier: 'Taro has spent all the money that Hanako lent to him, not to someone else.' The latter sentence, in contrast, does not have such a reading.

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(75) Taro$_i$-wa [ Hanako-ga    zibun$_i$-ni kasite kure-ta] okane-o    tukatte-simat-ta.

Taro-Top   Hanako-Nom self-Dat  lend   Ben-Past money-Acc spend-end.up-Past

'Taro$_i$ has spent all the money that Hanako lent to him$_i$.'          (= (25b))


As reviewed above, it has been claimed that *zibun-zisin* is an element that is strictly

subject to the locality requirement. However, empathic *zibun-zísin* takes a non-local an-

tecedent in the above examples. The behavior of *zibun-zísin* we observed in this sub-

section cannot be explained unless we assume that Japanese has more than one type of

*zibun-zisin*. Also, it has been reported that anaphors with contrastive stress allow non-

local antecedents, circumventing the Binding Principle A (Chomsky, 1986) (see Seely,

1988). For example, the English reflexive anaphor *himself* has a locality requirement,

so it does not allow a non-local antecedent, as (76a) shows. If the anaphor carries stress

(as indicated in capital letters), in contrast, the non-local binding becomes acceptable as

in (76b). If this anaphor is of the reflexive type or non-reflexive type is not important

here. The point here is that the syntactic requirement (locality requirement) is cancelled

by putting stress.[31]


(76)  a. *John$_i$ thinks that Mary likes himself$_i$.

   b. John$_i$ thinks that Mary likes HIMSELF$_i$.


## 2.2.2.2   Logophoric *Zibun-zisin*

*Zibun-zísin* in (77) is an example of the intensified form of logophoric *zibun* (let us

call this type of *zibun-zisin* logophoric *zibun-zísin*). Recall that logophoric *zibun* is bound

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[31]I thank Howard Lasnik for pointing out the irregular pattern of anaphors when they carry stress.

by a logophoric individual and that the sentence with logophoric *zibun* should be read with a *de se* interpretation. These properties of logophoric *zibun* are shared by logophoric *zibun-zísin*. For example, in (77), the antecedent of *zibun-zísin*, John, has to have a *de se* belief. This sentence is available only in the situation that John believes: 'I helped Bill,' but not with the situation John does not identify the guy who helped Bill is he himself.

(77) John$_i$-wa [ zibun-zísin$_i$-ga Bill-o   tasuke-ta ] to    omot-teiru.

John-Top self-Self-Nom   Bill-Acc help-Past  Comp believe-Asp.Pres

'John$_i$ believes that he$_i$ helped Bill.'

The difference between the logophoric *zibun-zísin* case in (77) and the logophoric *zibun* case in (78) that repeats (36) is that the former one has the contrastive meaning: 'John believes that he himself, not someone else, helped Bill.'

(78) John$_i$-wa [ zibun$_i$-ga Bill-o   tasuke-ta ] to    omot-teiru.           (= (36))

John-Top self-Nom   Bill-Acc help-Past  Comp believe-Asp.Pres

'John$_i$ believes that he$_i$ helped Bill.'

## 2.2.2.3   Locality-requirement "counterexamples"

In this subsection, I consider "counterexamples" of the locality requirement of *zibun-zisin* given in (79)-(81). *Zibun-zisin* in each sentence allows a non-local antecedent. In (79), the local subject is inanimate, *sentouki* 'battle plane.' Then, the animate non-local subject, *heisi* 'soldier,' is selected as its antecedent. *Zibun-zisin* in (80) is in a *koto* nominal phrase and it can refer to the non-local subject. In (81), *zibun-zisin* is in a specifier

position of a nominal clause: *zibun-zisin-no kodomo* 'self-self's kid.' The non-local subject as well as the local subject are possible antecedents.

(79) Heisi$_i$-wa  [teki-no  sentouki-ga  zibun-zisin$_i$-o nerat-teiru-koto]-ni

soldier-Top [enemy-Gen battle.plane-Nom self-self-Acc  aim.at-Asp.Pres-Comp]-Dat

kigatui-ta.

notice-Past

'The soldier noticed that an enemy's battle plane was aiming at him.'

(Hara, 2001, 24b)

(80) John$_i$-wa Sue$_j$-ni  [Mary$_k$-ga zibun-zisin$_{i/*j/k}$-o seme-ta  koto]-o  tuge-ta.

John-Top Sue-Dat Mary-Nom self-self-Acc  blame-Past Comp-Acc tell-Past

'John told Sue that Mary blamed self-self.'  (Hara, 2002, 6)

(81) John$_i$-wa  Sue$_j$-ni  Mary$_k$-ga  [zibun-zisin$_{i/*j/k}$-no-kodomo]-o seme-ta  to

John-Top  Sue-Dat  Mary-Nom  self-self-Gen-kid-Acc  blame-Past Comp

it-ta.

say-Past

'John told Sue that Mary blamed self-self's kid.'

I claim that *zibun-zisin* used in these examples are of the empathic or logophoric types, not of the reflexive type. The former two types of *zibun-zisin* are not subject to the locality requirement, so these examples are not counterexamples.

Consider (79). In this example, *zibun-zisin* is used as the intensified form of *zibun*. Compare (79) with (82) in which *zibun* is used.

(82) Heisi$_i$-wa  [teki-no     sentouki-ga zibun$_i$-o nerat-teiru-koto]-ni         kigatui-ta.

soldier-Top [enemy-Gen fighter-Nom self-Acc aim.at-Asp.Pres-Comp]-Dat notice-Past

'The soldier noticed that an enemy's fighter was aiming at him.'

Even when *zibun* is used, only the matrix subject is the possible antecedent, because the embedded subject is inanimate and is not a legitimate antecedent. *Zibun* in (82) is of the logophoric type because the verb is *kigatuku* 'notice' and the agent of the action is aware of what is happening to himself/herself and the *de se* interpretation is obligatorily induced. In the same way, in (79), *zibun-zisin* is interpreted as the intensified form of the logophoric type of *zibun*.

Now, compare (80) that contains the *koto* complementizer with (83) that contains the *to* complementizer. As we have seen in Footnote 11 of this chapter (on page 26). the two types of complementizers yield different speech act. In (80), the non-local subject as well as the local one are the possible antecedents of *zibun-zisin*. In contrast, in (83), only the local one is allowed.

(83) John$_i$-wa Sue$_j$-ni  [Mary$_k$-ga  zibun-zisin$_{*i/*j/k}$-o seme-ta]   **-to**    tuge-ta.

John-Top Sue-Dat Mary-Nom self-self-Acc      blame-Past -Comp tell-Past

'John told Sue that Mary blamed self-self.'

I claim that *zibun-zisin* in (80) is interpreted as logophoric *zibun* but the one in (83) cannot, due to the difference of the complementizer type. If the complementizer is *to* as in (83), the embedded clause is interpreted only as direct speech. Then, *zibun-zisin* is dominantly interpreted as a reflexive element: the intensified form of reflexive *zibun* or the anaphor *zibun-zisin*. It refers to the local subject Mary. What is yielded is the reading:

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the matrix subject John reports his observation about Mary who did a reflexive action: self-blaming, to Sue. The local antecedent reading is strongly preferable. On the other hand, when the complementizer is *koto* as in (80), the embedded clause is ambiguously interpreted as direct speech and indirect speech. In the direct speech reading, *zibun-zisin* is dominantly interpreted as a reflexive element. In contrast, in the indirect speech interpretation, the entire sentence is interpreted as the matrix subject's (John's) report of his thought. Then, the matrix subject is the logophoric individual who binds logophoric *zibun*. The *-zisin* affix functions as the intensifier. The expression, thus, has a contrastive meaning: John told Sue that 'Mary blamed me, not someone else.' Thus, in (80) in which the complementizer is *koto*, both the local and non-local antecedent readings are allowed.

In (81), *zibun-zisin* is interpreted as the intensified form of logophoric *zibun*. Compare (81) with (84) that contains *zibun*. In (84), the matrix subject John reports his *de se* belief 'Mary blamed my kid' to Sue. John is the logophoric individual. Similarly, in (81), John functions as the logophoric individual and binds *zibun-zisin*, more specifically, the specified form of *zibun*. The difference between (81) and (84) is that the former has a contrastive meaning such as: John told Sue that 'Mary blamed MY kid, not someone else's.' (84) does not have that contrastive reading.[32]

(84) John$_i$-wa Sue$_j$-ni Mary$_k$-ga [zibun$_{i/*j/k}$-no-kodomo]-o seme-ta   to   it-ta.

John-Top Sue-Dat Mary-Nom self-Gen-kid-Acc        blame-Past Comp say-Past

'John told Sue that Mary blamed self's kid.'

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[32] Aikawa (1993) reports that *zibun-zisin* in a specifier position of a noun behaves in the same way as English *own* as in 'his <u>own</u> kids.'

The sentences above are counterexamples of locality requirement of *zibun-zisin* for previous works that assume only the reflexive anaphor type of *zibun-zisin*. However, I claim that *zibun-zisin* has other usages too. In the above examples, *zibun-zísin* is of the logophoric type, and this type of *zibun-zísin* does not require a local antecedent. Then, these sentences are not counterexamples.

### 2.2.2.4 *Zibun-zisin* in other usages

In Section 2.1.2.4, we have seen that *zibun* can refer to first and second person and it occurs in some idioms. In this subsection, I consider if *zibun-zisin* also has these usages.

Aikawa (1993, 52) claims that *zibun* can refer to speakers but *zibun-zisin* cannot, giving the example pair in (85a) and (85b). She claims that (85a) with *zibun* has two readings (Readings 1 and 2), but (85b) with *zibun-zisin* has only Reading 1.

(85)  a. John-wa  zibun-o  seme-ta.

    John-Top self-Acc blame-Past

    Reading 1: 'John blamed himself.'

    Reading 2: 'John blamed me (the speaker).'

  b. John-wa  zibun-zisin-o seme-ta.

    John-Top self-self-Acc blame-Past

    Reading 1: 'John blamed himself.'

    *Reading 2: 'John blamed me (the speaker).'

Her claim holds if *zibun-zisin* is interpreted as an anaphor. However, if *zibun-zisin* in (85b) is interpreted as the intensified form of *zibun*, the speaker reading is available. (86) that

contains a proper context shows that the speaker reading of *zibun-zísin* is easily allowed.

(86) Scenario: I was attending a class and the professor praised me in front of other students, so I was so happy.

Boku-wa kyouzyu-ga    zibun-zísin-o home-ta node    uresikat-ta.

I-Top    professor-Nom self-Self-Acc sue-Past because be.happy-Past

'The professor praised me, not someone else, so I was so happy.'

Under my claim, *zibun* in (85a) in Reading 1 is of the reflexive type of *zibun*. In Reading 2, it is the logophoric type (so Reading 2 has to be a *de se* interpretation). By contrast, in (85b) in Reading 1, *zibun-zisin* is the reflexive anaphor (or the intensified form of reflexive *zibun*). Reading 2 is available if *zibun-zisin* functions as the intensified form of logophoric *zibun*.

Now, let us consider if *zibun-zisin* is used in idioms. We have seen in Section 2.1.1 that *zibun* is used in the verbal type of idioms such as *zibun-o korosu* 'sacrifice oneself (lit. kill oneself)' as in (14), repeated here as (87). Both *zibun-zisin* and *zibun-zísin* are not available in verbal idioms, as the ill-formedness of (88) shows.

(87) John-wa  zibun-o  korosi-te kaisya-no    tame-ni   hatarai-ta.         (= (14))

John-Top self-Acc kill-and   company-Gen favor-Dat work-Past

'John sacrificed himself and worked hard for his company.'

(88)*John-wa  {zibun-zisin / zibun-zísin}-o korosi-te issyoukenmei hatarai-ta.

John-Top {self-self     / self-Self}-Acc kill-and   hard            work-Past

'John sacrificed himself and worked so hard.'

How about the adverbial idiom usage? We reviewed in Section 2.1.2.4 that Japanese has

the actor-oriented intensifier idiom *zibun-de* 'by oneself' as in (89). *Zibun-zísin* can be

used in this idiom, as (90) indicates. The phrase has a contrastive meaning, as the gloss

in (90) shows, compared to the simple *zibun-de* case in (89). The anaphor *zibun-zisin* is

also available, though the phrase lacks such a contrastive meaning. The *zibun* case and

the *zibun-zisin* case mean almost the same.

(89) John-wa   zibun-de kabe-o     nut-ta.                                         (= (53))

    John-Top self-by    wall-Acc paint-Past

    'John painted the wall by himself.'

(90) John-wa   zibun-zísin-de kabe-o     nut-ta.

    John-Top self-Self-by     wall-Acc paint-Past

    'John painted the wall by himself, not by someone else.'

We have seen one more idiom *zibun-kara* 'voluntarily' as in (91). In this idiom, neither

*zibun-zisin* nor *zibun-zísin* are available. The two expressions in (92) are not good.

(91) John-ga     zibun-kara soko-e   it-ta.                                       (= (58a))

    John-Nom voluntarily there-to go-Past

    'John voluntarily went there.'

(92)*John-ga     {zibun-zisin / zibun-zísin}-kara soko-e   it-ta.

    John-Nom voluntarily                     there-to go-Past

    'John voluntarily went there.'

### 2.2.3 Summary

In this section, I have considered *zibun-zisin* 'self-self' of the reflexive and non-reflexive types. I have claimed that there are four types of *zibun-zisin*: reflexive anaphor *zibun-zisin*, the intensified form of reflexive *zibun*, the intensified form of empathic *zibun* and the intensified form of logophoric *zibun*, and that each *zibun-zisin* obeys different constraints. Some previous studies have reported "counterexamples" of the locality requirement of *zibun-zisin*. I have, however, shown that *zibun-zisin* in these examples is not a reflexive anaphor, but the intensified form of logophoric *zibun*. This item does not have the locality requirement. Thus, these examples are not counterexamples. I have also discussed the availability of the speaker usage of *zibun-zisin*. When *zibun-zisin* is used as the intensified form of *zibun*, the speaker usage of *zibun-zisin* is available. Also, we have seen that *zibun-zisin* can replace *zibun* in the idiom *zibun-de* 'by oneself' and if it is used as the intensified form of *zibun*, it add the intensifier / contrastive meaning, while *zibun-zisin* cannot replace *zibun* in the idiom *zibun-kara* 'voluntarily.' I would like to emphasize that *zibun-zisin* is often used as the intensified form of *zibun*, although previous works have focused only on the reflexive anaphor usage of the element.

## 2.3 *Zi-/Ziko*-affixes

In this subsection, I consider the *zi-/ziko*-affixes that are used in Sino-Japanese origin morphologically complex predicates, known as '*zi*-verbs' and '*ziko*-verbs,' such as

*zi-satu-suru* 'kill oneself' in (93a) and *ziko-hihan-suru* 'criticize oneself' in (93b).[33] Although these verbs have been thought as 'reflexive verbs,' the true nature of this class of verb is yet to be conducted. The nature of the affixes is also not clear.

(93)  a.  John-wa  zi-satu-si-ta.

John-Top self-killing-do-Past

'John killed himself.'

b.  John-wa  ziko-syoukai-si-ta.

John-Top self-introduction-do-Past

'John introduced himself (to someone).'

*Zi*-verbs and *ziko*-verbs consist of three parts: (a) the affix *zi-/ziko-*, (b) a Sino-Japanese verbal noun, for example, *satu* 'killing' and *hihan* 'criticism' in (93), and (c) the light verb *suru* 'do' (Grimshaw and Mester, 1988). The type of verbal noun determines which of the *zi*-affix or the *ziko*-affix is used. A verbal noun that consists of one or two morae, which is expressed using one Chinese character, takes the *zi*-affix. This affix also consists of one Chinese character. For example, the verbal noun *satu* 'killing' in (93a) takes *zi-* and creates *zi-satu* 'self-killing.' On the other hand, a verbal noun that consists of more than two morae that is expressed in two Chinese characters takes the *ziko*-affix. The affix also consists of two Chinese characters. The verbal noun *syoukai* 'introduction' in (93b) is combined with *ziko* and yields *ziko-syoukai* 'self-introduction.'

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[33]The previous studies on *zi-/ziko*-verbs (Aikawa, 1993, Tsujimura and Aikawa, 1996, 1999) uniformly gloss the *zi-/ziko*-affixes as 'self' because they assume all the *zi-/ziko*-verbs are reflexive verbs. However, as I will argue shortly, not all the *zi-/ziko*- verbs are reflexive verbs and not all the *zi-/ziko*-affixes mean 'self.' I gloss *zi-/ziko-* as 'ZI/ZIKO' when they occur in a non-reflexive usage.

Verbal nouns used in all *ziko*-verbs can be used as independent nouns and those nouns can be used as independent verbs when they are supported by the light verb *suru* 'do.' For instance, consider (93b): Japanese has a noun *syoukai* 'introduction' and a verb *syoukai-suru* 'do an introduction, introduce.' In contrast, not all verbal nouns used in *zi*-verbs can be used as independent nouns and those nouns cannot be used as independent verbs even if they are supported by the light verb *suru*. For example, although Japanese has the *zi*-verb *zi-satu-suru* 'kill oneself' as in (93a), the language has neither a noun *\*satu* 'killing' nor a verb *\*satu-suru* 'do a killing, kill.'[34] Based on this contrast between verbal nouns in *zi*-verbs and ones in *ziko*-verbs, one might assume that *zi-satu* in (93a) is lexically one morpheme and not decomposable, while *ziko-syoukai* in (93b) consists of two morphemes and it is syntactically combined. In this thesis, however, I assume that both *zi-* and *ziko-* affixes (used in the reflexive type of *zi-/ziko*-verbs: I will shortly show that there are several types of *zi-/ziko*-verbs) are syntactically incorporated into verbal nouns. For, as I will discuss in Section 2.3.1.2, reflexive *zi*-verbs and reflexive *ziko*-verbs share the same syntactic properties. I assume that the affix of both types is first incorporated into a verbal

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[34]Some *zi*-verbs contain verbal nouns that can be used as independent nouns / verbs when they are supported by the light verb *suru* 'do.' For example, Japanese has a *zi*-verb *zi-ai-suru* 'take care of oneself,' a noun *ai* 'love' and a verb *ai-suru* 'love.' *Zi*-verbs show this property is, however, not of the reflexive type in my analysis. These verbs can take object arguments as in (i), and I categorize these verbs in a different class from *zi*-verbs like *zi-satu-suru* 'kill oneself.' I will shortly discuss the classes of *zi-/ ziko*-verbs.

(i)  karada-o  zi-ai-suru

body-Acc ZI-love-do

'take care of one's body, health'

noun (e.g. *zi-* + *-satu* 'self-killing') and then the verbal noun complex is further combined with the light verb *suru* 'do' (*zi-satu* + *suru*). The affix is not combined with the verbal noun and the light verb complex (not: *zi-* + *\*satu-suru*).

Aikawa (1993) and Tsujimura and Aikawa (1996, 1999) undertake the descriptive investigation of this class of verb and report that there are two types of *zi-/ziko*-verbs: some *zi-/ziko*-verbs can occur with an object as in (94), while some cannot as in (95).[35]

(94)  a.  John-wa  { musuko / sigoto }-o zi-man-si-ta.

       John-Top { son / job }-Acc    self-boast-do-Past

       'John boasted about { his son / his job } by himself.'

    b.  John-wa  { kiroku / menkyo }-o    ziko-sinsei-si-ta.

       John-Top { record / licentiate }-Acc self-application-do-Past

       'John applied { his record / his licentiate } by himself.'

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[35]The *zi*-verb and the *ziko*-verb in (94) can occur with object arguments, but I do not think that these verbs felicitously occur with the reflexive anaphors *zibun* and *zibun-zisin* as their object arguments, contrary to Aikawa's (1993) claim. Although she accepts sentences like (i), the acceptability of the sentence is very low for the native Japanese speakers who I consulted, including myself. The *zi-/ziko*-verbs that cannot occur with object arguments like the ones in (95), of course, cannot take *zibun* (and *zibun-zisin*) as their object arguments.

(i)  John-wa  zibun-o  zi-man-si-ta.

   John-Top self-Acc self-boast-do-Past

   'John criticized himself.'                     (Based on Aikawa, 1993, 76)

(95) a. John-wa (*musuko-o) zi-satu-si-ta.

John-Top his son-Acc self-killing-do-Past

'John killed himself.' /*'John killed his son.'

b. John-wa (*sakuhin-o) ziko-hihan-si-ta.

John-Top his work-Acc self-criticism-do-Past

'John criticized himself.' /*'John criticized his work.'

Focusing only on the latter type of verbs (verbs that cannot occur with objects like the ones in (95)), Aikawa (1993) and Tsujimura and Aikawa (1996, 1999) claim that the *zi-* and *ziko-*affixes are both reflexive elements, like *zibun* 'self,' and that all these *zi-/ziko-*verbs are uniformly reflexive verbs. Contrary to their claim, I argue that not all of these *zi-/ziko-*verbs are reflexive verbs.[36] My claim is that reflexive *zi-/ziko-*verbs are only (a) a certain type of *zi-*verbs that cannot occur with object arguments and (b) all *ziko-*verbs that cannot occur with object arguments. Other *zi-/ziko-*verbs (include both verbs that can and cannot occur with objects) are not reflexive verbs. In the reflexive type of verb, the *zi-/ziko-*affixes function like the internal argument of the verbal nouns and mean 'self.' On the other hand, in the non-reflexive types, the affixes function like adverbs. The chart (96) shows how *zi-*verbs and *ziko-*verbs are classified under my assumption. You can see that the availability of taking an object does not separate reflexive *zi-/ziko-*verbs from non-reflexive ones.

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[36]Some arguments and analyses discussed in this subsection are based on Kishida and Sato (2009, to appear).

(96)

| Type | Example | Occurs w/ Obj? | Ref verb? |
|------|---------|----------------|-----------|
| *Zi*-verb | *zi-satu-suru* 'kill oneself' | No | Yes |
| *Ziko*-verb | *ziko-syoukai-suru* 'introduce oneself' | No | |
| *Zi*-verb | *zi-kai-suru* 'collapse' | No | No |
| *Zi*-verb | *zi-sui-suru* 'cook by oneself' | No | |
| *Zi*-verb | *zi-man-suru* 'boast about ' | Yes | |
| *Ziko*-verb | *ziko-kanri-suru* 'control by oneself' | Yes | |

In the following subsections, I discuss why not all *zi-/ziko*-verbs are reflexive verbs, what reflexive *zi-/ziko*-verbs are, and what non-reflexive *zi-/ziko*-verbs are.

## 2.3.1   Reflexive *Zi-/Ziko-*

In Section 2.3.1, I first discuss why not all *zi-/ziko*-verbs are reflexive verbs. Later, I introduce my analysis of the reflexive type of *zi-/ziko*-verbs.

### 2.3.1.1   Not all *Zi-/Ziko*-verbs are reflexive verbs

If all the *zi*-verbs were reflexive verbs and the *zi*-affixes were reflexive elements like *zibun* 'self' and *zibun-zisin* 'self-self,' as claimed in Tsujimura and Aikawa (1996, 1999), it is predicted that these affixes would also be subject to the syntactic restrictions that other reflexive anaphors are subject to. Recall the properties of reflexive anaphors

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like *zibun*: Subject orientation and Animacy restriction. Let us consider the two *zi*-verbs in (97) and (98).

(97) John-wa (∗musuko-o) zi-satu-si-ta.

    John-Top   son-Acc   self-killing-do-Past

    'John killed himself.' /∗'John killed his son.'

(98) Tatemono-wa (∗yane-o)   zi-kai-suru.

    building-Top   roof-Acc ZI-collapse-do.Pres

    'The building collapses.' /∗'The building collapses its roof.'

The two *zi*-verbs in the examples apparently belong to the same type of *zi*-verb, since the two verbs both cannot occur with an object argument. However, in fact, they belong to different classes. In (97), if the *zi*-affix is a reflexive element like *zibun*, it requires an animate subject as its antecedent. The subject John is animate. Both Subject-orientation and Animacy restriction are satisfied. This verb cannot occur with an inanimate subject, such as *hikouki* 'plane' in (99): the sentence cannot be used in describing a suicide attack.

(99) ∗Hikouki-ga (biru-ni-atatte)       zi-satu-si-ta.

    plane-Nom (building-to-crash.into) self-killing-do-Past

    'The plane killed itself (by crashing into the building).'

How about (98)? In this sentence, if *zi*- were a reflexive element, it would refer to the subject *tatemono* 'the building.' This argument is, however, not animate. If this affix were really a reflexive element that is subject to Animacy restriction and Subject-orientation, this sentence would be excluded, as is (100). The subject *sinbun* 'newspaper' is not animate and *zibun* in this sentence does not have its reference, and the sentence is excluded.

(100) * Sono sinbun-ga      kaze-ni zibun-o hiroge-ta.             (= (10b))

     that   newspaper-Nom wind-in self-Acc unfold-Past

     'The newspaper unfolded itself in the wind.'

That the sentence (98) is acceptable suggests that the *zi*-affix in the sentence is not a reflexive anaphor. Thus, I do not categorize the *zi*-verb in (98) as a reflexive verb. The observation above shows that there are several types of *zi*-affix and several types of *zi*-verb: the *zi*-affix in (97) is a reflexive anaphor but the *zi*-affix used in (98) is not.

    In many languages, it is observed that one affix occurs in several constructions and shows different functions. For example, in Italian, the affix (clitic) *si*- (glossed as SI) is used in the reflexive construction in (101a), the decausative construction in (101b), the middle construction in (101c) and the impersonal construction in (101d). The *si*-affixes in the constructions have different functions and meanings.

(101)  a.  Maria si guarda.                             [Italian]

        Maria SI watches

        'Maria watches herself.' (Reflexive)         (Lidz, 1996, (157a))

     b.  Il   vetro si rompe.

        the glass SI breaks
        'The glass breaks.' (Decausative)        (Lidz, 1996, (75b))

     c.  La pellice si vendono bene d'autunno

        the furs    SI sell     well in-autumn
        'The furs sell well in the autumn.' (Middle)     (Lidz, 1996, (157b))

    d.  Domani   si discutera      le  due proposte di legge

        tomorrow SI discuss.Fut.3SG the two bills     of law

        'Tomorrow they will discuss two bills.' (Impersonal)     (Lidz, 1996, (161b))

In Russian as well, the affix *-sja* is used in the reflexive construction in (102a), the impersonal passive construction in (102b), the emotion middle construction in (102c) and the construction that contains unspecific object reference in (102d).

(102)  a.  Ivan mo-et-sja     dvazhdy v  den'.[37]             [Russian]

        Ivan wash-3SG-SJA twice    in day

        'Ivan washes twice a day.' (Reflexive)

    b.  Kak èto  dela-et-sja

        how that do-3SG-SJA

        'How is that done?' (impersonal passive)

    c.  On bespoko-it-sja.

        He disquiet-3SG-SJA

        'He is worried.' (emotion middle)

    d.  Sobaka kusa-et-sja.

        dog    bite.IMPF-3SG-SJA

        'The dog bites.' (unspecific object reference)

                            (Gast and Siemund, 2006, (55)-(58))

Geniušiene (1987) gives an interesting typological generalization that if a language has a verbal morpheme for both reflexive and decausative constructions, it uses the same

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[37] I gloss the *-sja* affix as 'SJA,' though the original sentences have glosses 'Refl/Mid.'

morpheme for the constructions. The data in Italian in (101a) and (101b) is consistent with her generalization. I will consider if her generalization holds in Japanese as well later.

As observed above, one element can occur and function differently in several constructions in many languages. My analysis of *zi-/ziko*-verbs is that the *zi-/ziko*-affixes in Japanese are also of this type of element: the *zi-/ziko*-affixes function as reflexive markers (anaphors) in some *zi-/ziko*-verbs as in (97), while the same affixes have different functions in other *zi-/ziko*-verbs as in (98). This analysis is contrary to Tsujimura and Aikawa's (1996,1999) analysis that regards the *zi-/ziko*-affixes in all the *zi-/ziko*-verbs that cannot occur with object uniformly as reflexive elements, which is based on the fact that one of the functions of the affixes is to mark reflexivity. Their analysis is too simplistic.

## 2.3.1.2   Genuine reflexive *Zi-/Ziko*-verbs

We have seen that the *zi*-affix used in the *zi*-verb *zi-satu-suru* 'kill oneself' in (97), repeated here as (103), shares properties with the reflexive anaphor *zibun*: it is subject-oriented and has an Animacy restriction. We also know that this class of *zi*-verb does not occur with an object argument, as the unavailability of the object *musuko* 'son' in (103) illustrates.

(103) John-wa  (∗musuko-o) zi-satu-si-ta.

John-Top    son-Acc      self-killing-do-Past

'John killed himself.'  /∗'John killed his son.'

I demonstrate, in Kishida and Sato (to appear), that *zi*-verbs like *zi-satu-suru* 'self-killing-do' have both an external argument and an internal argument by applying several diagnostics from the Japanese literature. Among the diagnostics, I introduce one diagnostic for external argumenthood and one diagnostic for internal argumenthood below.

One of the external argumenthood tests is the availability of accusative-case marking to verbal nouns. Dubinsky (1985), Miyagawa (1989) and Tsujimura (1990) observe that the accusative case marker *-o* in Japanese can be attached to transitive and unergative verbal nouns, not to unaccusative verbal nouns. This is illustrated by the contrast between (104a,b) and (104c).

(104)  a. kenkyu  (-o)    suru                                    (Transitive verbal noun)

     research (-Acc) do

     'do research'

    b. rikon   (-o)    suru                                    (Unergative verbal noun)

     divorce (-Acc) do

     'get divorced'

    c. sikyo (*-o)   suru                                    (Unaccusative verbal noun)

     death (-Acc) do

     'die'

Grimshaw and Mester (1988) argue that the argument-taking property of the verbal noun is transferred into the empty $\theta$-grid of the light verb *suru* 'do.' Under this analysis, the verbal nouns can be marked with *-o* by the light verbs in (104a,b), which become transitive and unergative verbs, respectively, as the result of Argument Transfer. The impossibility

of the accusative case marking on the verbal noun in (104c) falls out, because the light verb does not get an external argument via Argument Transfer and hence lacks the ability to assign accusative case to the verbal noun. Now, when this diagnostic is applied to the *zi*-verbal noun *zi-satu* 'self-killing' in (105), the verbal noun can be marked with the accusative case. This suggests that the light verb has an external argument, and consequently, the *zi*-verb has one.

(105) zi-satu  (-o)  suru  (*Zi-* verbal noun)

     self-killing (-Acc) do

     'kill oneself'

     The diagnostic for internal argumenthood is the deverbal nominal construction headed by the aspectual affix *-kake* 'be about to, do halfway' discussed by Kishimoto (1996, 2005). In this construction, the *-kake* morpheme is suffixed productively to a variety of verbal stems, followed by the genitive marker *no-*, to create the prenominal modification pattern. Kishimoto establishes the generalization that the target of the modification by this affix is restricted to the (underlying) internal argument. This is illustrated in examples (106)-(108).

(106) a. Masao-ga  zassi-o  yon-da.  (Transitive verb)

     Masao-Nom magazine-Acc read-Past

     'Masao read a magazine.'

    b. yomi-kake-no  zassi

     read-KAKE-Gen magazine

     'the magazine, read halfway'

c. *yomi-kake-no    Masao

read-KAKE-Gen Masao

'Masao, read halfway'

(107) a. Rannaa-ga   hasit-ta.                                              (Unergative verb)

runner-Nom run-Past

'The runner ran.'

b. *hasiri-kake-no    rannaa

run-KAKE-Gen runner

'the runner, almost running'

(108) a. Doa-ga     ai-ta.                                                  (Unacceusative verb)

door-Nom open(Intr)-Past

'the door opened.'

b. aki-kake-no             doa

open(Intr)-KAKE-Gen door

'the door, slightly ajar'

The contrast between (106b) and (106c) shows that only the internal argument of the tran-
sitive verb *yomu* 'read' can be felicitously predicated of by the corresponding preverbal
noun derived by *kake*-suffixation. In (107b), the *-kake* suffixation with the unergative verb
*hasiru* 'run' is not acceptable: the surface subject *rannaa* 'runner' is the external argu-
ment of the verb. In (108b), in contrast, the surface subject of the unaccusative verb *aku*
'open (Intr),' namely *doa* 'door,' can be the target of the *kake*-modification: this noun is

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the underlying internal argument of the verb. Now we apply this diagnostic to the *zi*-verb

*zi-satu-suru* 'kill oneself' in (109).

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

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

       'We could somehow rescue our son, half kills himself.'

The availability of the *kake*-modification in (109) indicates that this *zi*-verb has an internal

argument.

The results of the diatnogstics show that this *zi*-verb has both an external and an

internal argument. This verb, however, superficially has only one argument. I claim that

the affix used in this class of *zi*-verb is a reflexive anaphor that means 'self.'[38] This affix

is generated as the internal arugment of the verbal noun and incorprated into the verbal

noun due to its nature as an affix. The surface subject is the external argument of the

verbal noun.[39]

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[38]As we have seen just above, many languages use one affix in several constructions: for example, we

saw in (101) that Italian uses the *se* affix in reflexive, decausative, middle and impersonal constructions and

that the affix has multiple functions. If Japanese *zi-*/*ziko-* are also such affixes, it is unlikely that the affixes

are NPs in reflexive constructions while they are adjuncts in others, as I assume here. One possibility is that

the language has several *zi-*/*ziko-*affixes that are in exactly identical forms and pronounced the same, and

they are used in different constructions. That is, the anaphor *zi-*/*ziko-* and the adjunct ones are homonyms.

See also Footnote 43 of this chapter.

[39]Reinhart and Siloni (1999, 2005) claim that a reflexive clitic is associated with the internal $\theta$-role in

the lexicon, but it is not the internal argument in syntax. They propose that a clitic triggers an operation

called 'reflexive bundling' as (i) and that reflexivization occurs in the lexicon via bundling as in (ii)-(iv): a

transitive verb such as *wash* in (ii) is turned into an intransitive entry that has only one complex $\theta$-role to

One evidence for this assumption is that the sentence (103) can be paraphrased as (110), using *zibun* and a native Japanese transitive verb *korosu* 'kill.'[40] The crucial difference between (103) and (110) is that the reflexive *zi-* is morphologically incorporated into verbs in the former case.

(110) John-wa  zibun-o  korosi-ta.

    John-Top self-Acc kill-Past

    'John killed himself.'

I assume that verbal nouns of this class of *zi*-verb, like *satu* 'killing' in (103), assign case to the affixal anaphor and they morphologically incorporate the affix. Because these verbal nouns already assign case to their internal arguments, additional case assingments are not available and this class of verb cannot occur with object arguments.

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assign as in (iii). The bundle is assigned to an external argument as in (iv).

  (i)  $[\theta_i]\,[\theta_j] \rightarrow [\theta_i\text{-}\theta_j]$, where $\theta_i$ is an external $\theta$-role.

 (ii)  Verb entry: *wash*$_{\text{acc}}$[Agent] [Theme]

(iii)  Reflexivization output: *wash*[Agent-Theme]

(iv)  Syntactic output: Max$_{[\text{Agent–Theme}]}$ washed.         (Reinhart and Siloni, 2005, (24,26))

I do not assume that such operation occurs in Japanese *zi-/ziko*-verbs because these verbs have an internal argument in syntax as the internal-argumenthood diagnostic shows.

[40]The phrase *zibun-o korosu* 'kill oneself' in (110) is most likely interpreted with the idiomatic meaning 'sacrifice oneself' (recall the discussion on *zibun* idioms on page 14) and seldom with the literal meaning 'kill oneself, commit suicide' if *zibun* has a local binder. Here, however, following McCawley (1972, 29), I regard the phrase as the paraphrase of the *zi*-verb *zi-satu-suru* 'kill oneself' in (103).

Before considering my analysis closely, let me briefly review the analysis of *zi*-verb in Tsujimura and Aikawa (1996, 1999) and the analysis of *ziko*-verb in Aikawa (1993). Although they assume that both the *zi*- and *ziko*-affixes are reflexive elements, they claim that the two affixes have different syntactic properties and they give different accounts for the two affixes. Tsujimura and Aikawa (1996, 1999) assume that the *zi*-affix is stored as a part of the verbal noun in the lexicon. The *zi*- affix is incorporated into a verbal noun in the lexicon and the surface subject is originally the internal argument of this *zi*-verbal noun complex. That is, under their analysis, the *zi*-verb in (103) has an unaccusative structure and the sentence is derived as schematized in (111).

(111)  [$_{TP}$ John$_i$-ga [$_{vP}$ $\cdots$ [$_{VP}$ $\cdots$ [$_{VNP}$ $t_i$ zi-satu] si ] $\cdots$ ] ta]

Elsewhere, Aikawa proposes an analysis of *ziko*-verbs (Aikawa, 1993). Under her analysis, the *ziko*-affix is a reflexive clitic that absorbs Theme and it is a 'pseudo-argument.' Pseudo-argument she means is an element that looks like an argument but cannot syntactically function as an argument. She claims that *ziko*-verbs can be used as transitive verbs taking *zibun* 'self,' *zibun-zisin* 'self-self' and pronouns as their object as in (112) and that the three expressions mean the same and are equally acceptable.

(112) John-wa   { zibun / zibun-zisin / kare }-o ziko-hihan-si-ta.

   John-Top { self / self-self / him }-Acc     self-criticism-do-Past.

   'John criticized himself.'                                (Based on Aikawa, 1993, 76)

However, for many Japanese speakers, including myself, none of the expressions sounds felicitous. When the verb occurs with *zibun* or *zibun-zisin*, the expressions sound redun-

dant and unacceptable[41] The reading in which *kare* 'him' refers to John is unacceptable: this reading violates Binding Principle B (Chomsky, 1981), if *kare* is really a personal pronoun.

Aikawa (1993) claims that Sino-Japanese predicates (verbal noun+*suru* 'do') that can take the *ziko*-affix have two usages: they are doubly listed in the lexicon as reflexive and non-reflexive (in the sense of Reinhart and Reuland (1993): I will review their analysis in Section 3.1). In contrast, predicates that cannot take the *ziko*-affix have only one usage: they are lexically not reflexive. In (113a), the predicate *bengo-suru* 'defend' can take the *ziko*-affix. So, the predicate is categorized as having both the reflexive and non-reflexive usage. The predicate as a reflexive verb can occur with the reflexive anaphor *zibun* 'self' in (113b), and the verb as a non-reflexive verb takes the non-reflexive noun Mary as its object as in (113c). On the other hand, the predicate *sidou-suru* 'guide' in (114a) cannot take the *ziko*-affix. This predicate is categorized as a non-reflexive verb. Although this verb cannot occur with *zibun* in (114b), it can occur with the non-reflexive object as in (114c). Aikawa claims that the *ziko*-affix is not a part of complex verbs, but it is attached to verb stems in syntax.

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[41]Such a redundancy is observed in English unergative verbs as well. Compare (i) and (ii). The latter sounds redundant. I thank Norbert Hornstein for giving me this example.

(i) John slept a deep sleep.

(ii) John slept a sleep.

(113) a. John-ga    ziko-bengo-suru.

     John-Nom self-defense-do.Pres

     'John defends himself.'

   b. John-ga    zibun-o  bengo-suru.

     John-Nom self-Acc defense-do.Pres

     'John defends himself.'

   c. John-ga    Mary-o   bengo-suru.

     John-Nom Mary-Acc defense-do.Pres

     'John defends Mary.'

(114) a.∗ John-ga    ziko-sidou-suru.

     John-Nom self-guide-do.Pres

     'John guides himself.'

   b.∗ John-ga    zibun-o  sidou-suru

     John-Nom self-Acc guide-do.Pres

     'John guides himself.'

   c. John-ga    Mary-o   sidou-suru

     John-Nom Mary-Acc guide-do.Pres

     'John guides Mary.'                  (Based on Aikawa, 1993)

Arguing against Tsujimura and Aikawa who treat the *zi*-affix and the *ziko*-affix separately in terms of syntactic properties, I claim that both *zi*-verbs and *ziko*-verbs (of the

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reflexive type) show the same syntactic behavior and that both the *zi*-affix and the *ziko*-affix are anaphoric internal arguments of verbal nouns and these anaphors have to be incorporated due to their affix nature. Under my analysis, (115a) has the syntactic derivation given in (115b).

(115) a. John-ga   (*musuko-o) zi-satu-si-ta.

      John-Nom   son-Acc   self-killing-do-Past

      'John killed himself.'  /*'John killed his son.'

b.

```
                    TP
                  /    \
               DP       T'
                      /    \
                   vP        T
                  /  \       |
               DP     v'    -ta
                |    /  \
             John  VP    v
                  /  \    |
               VNP   V  [DO]
              /  \    |
            zi-  VN  suru
                 |
               -satu
```
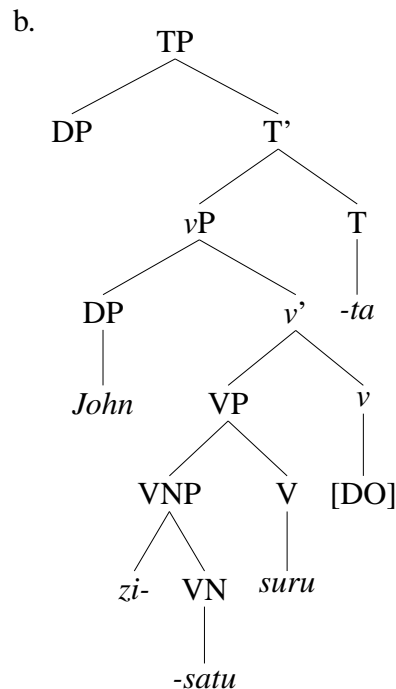
The reflexive affix *zi-* is base-generated as the internal argument of the verbal noun *satu* 'killing,' whereas the other argument John is merged directly in [Spec, *v*P] as an external argument of the *v* head. The *zi*-affix undergoes successive syntactic incorporation through the verbal noun and the light verb *suru* 'do' into the *v* head to create the complex predicate. Following decompositional theories of argument structure as in Harley (1995) and Harley

and Noyer (2001), I assume that the value of the *v* head is selected from a fixed class (e.g., CAUSE, DO, BECOME, BE) provided by Universal Grammar and that each such value has specific argument-selecting properties. In the present derivation, the little *v* has the value DO that selects both the actor argument (DP) and the action complement (VP). The external argument John undergoes movement from [Spec, *v*P] into [Spec, TP] to receive nominative case. The reflexive affix is assigned accusative case by the verbal noun. I assume that a verbal noun itself is transitive and not specified with respect to reflexivity, but the derived verbal complex has reflexivity.

I claim that *ziko*-verbs that cannot occur with an object argument like (116a) are also reflexive verbs: *ziko*- is the internal argument of the verbal noun *hihan* 'criticism.' As mentioned above, Japanese has two types of reflexive affix and they are morphologically constrained: the *zi*-affix attaches to a less-than-two-morae one-Chinese-character verbal noun, while *ziko*-affix attaches to a more-than-two-morae two-Chinese-character one. I assume that the two affixes are, however, syntactically and semantically indistinguishable. Therefore, I assume that the *ziko*-verb example (116a) is derived in the same way as the *zi*-verb in (115b), as the tree diagram in (116b) indicates.

(116)  a.  John-wa   (* sakuhin-o)   ziko-hihan-si-ta.                    (cf. (95b))

        John-Top work-Acc       self-criticism-do-Past

        'John criticized himself.' /*'John criticized his work.'

b.

```
                    TP
             ┌──────┴──────┐
            DP             T'
                     ┌──────┴──────┐
                    vP             T
              ┌──────┴──────┐      │
             DP            v'     -ta
              │        ┌────┴────┐
            John      VP         v
                   ┌───┴───┐     │
                  VNP      V    [DO]
                ┌──┴──┐   suru
              ziko-  VN
                      │
                   -hihan
```
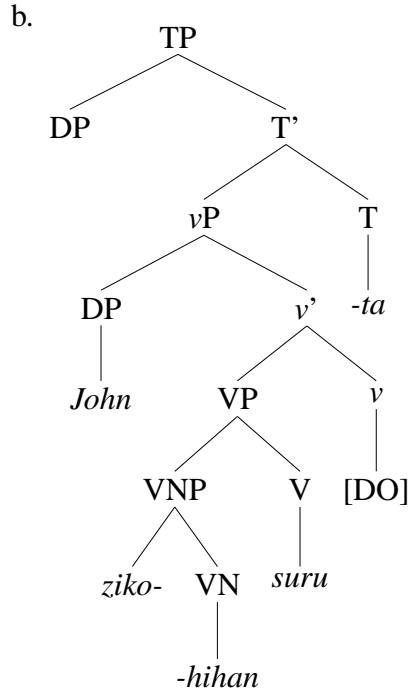
In (115a) and (116a), the *zi*-verb *zi-satu-suru* 'kill oneself' and the *ziko*-verb *ziko-hihan-suru* 'criticize oneself' cannot occur with any object arguments. The unavailability of taking objects of these verbs is naturally and quite simply explained under my approach: these verbal nouns are transitive and they assign accusative case to their internal arguments *zi-/ziko-*. They cannot assign case further and additional surface object arguments are not available.

## 2.3.2   Non-reflexive *Zi-/Ziko-*

In this subsection, I consider the non-reflexive types of *zi-/ziko*-verb and show the properties and functions of the affixes used in these types of verb. Non-reflexive verbs, under my classification, refer to (a) *zi*-verbs that cannot occur with objects and incorporate adverbial *zi*-affixes and (b) *zi-/ziko*-verbs that can occur with objects. I consider verbs of the (a) type first and the (b) type next.

### 2.3.2.1  Non-reflexive *Zi*-verbs without objects

Here, I consider the non-reflexive types of *zi*-verb that cannot occur with an object argument. We have seen in (98), repeated here as (117), that Japanese has the *zi*-verb *zi-kai-suru* 'collapse' in which the *zi*-affix does not function as the internal argument of the verbal noun that means 'self.' In (117), the verb does not express a reflexive action by an agent, and this *zi*-verb occurs with the non-animate subject *tatemono* 'building.' We have said that this type of verb is not a reflexive verb and the *zi*-affix used here is not a reflexive anaphor.

(117)  Tatemono-ga  (\*yane-o)  zi-kai-suru.                                    (= (98))

        building-Nom    roof-Acc ZI-collapse-do.Pres

        'The building collapses.'  /  \*'The building collapses its roof.'

In addition to this type of *zi*-verb, there is another type of *zi*-verb that cannot occur with any object argument and the *zi*-affix does not function as a reflexive anaphor. Consider the *zi*-verb *zi-sui-suru* 'cook by oneself' in (118).

(118)  John-ga     (\*yuusyoku-o) zi-sui-si-ta.

        John-Nom supper-Acc     ZI-cooking-do-Past

        'John cooked by himself.'  /  \*'John cooked supper for himself.'

Apparently, the verb in (118) belongs to the same class of verb as the non-reflexive *zi*-verb in (117). For, the *zi*-verb in (118) cannot occur with an object and the subject of the verb does not do a reflexive action towards himself/herself. In (118), John does not cook himself. The two verbs, however, have to be classified into the different types.

The two verbs differ in the type of subject: the *zi*-verb in (117) takes an inanimate subject, while the one in (118) takes an animate subject. This difference in animacy of subject reminds us of the commonly held assumption in the literature (Perlmutter, 1978, Burzio, 1986, Levin and Rappaport Hovav, 1995) that unergative verbs are likely associated with animate/agentive subjects, whereas unaccusative verbs are associated with inanimate/non-agentive subjects.[42] In (119) and (120), we apply the diagnostics for external argumenthood (the accusative case marking availability) and internal argumenthood (the KAKE modification availability) introduced in Kishida and Sato (to appear) and reviewed on Page 69 to the two types of verbs. The results are that *zi*-verbs like *zi-kai-suru* in (117) have an internal argument but lack an external argument, while *zi*-verbs like

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[42]It is true that some verbs that are usually considered to be unaccusative, such as *arrive* and *go*, can be used agentively as in (i) (cf. (ii)).

(i) {The package / The man} arrived.

(ii) {*The package / The man} wants to arrive at noon.

That the unaccusative verb can occur with the animate subject in (i) is problematic for my assumption here. Although I do not discuss the issue in detail here, one possible solution for that is to say that these verbs are ambiguously categorized as unaccusative and unergative. When the subject is non-agentive or inanimate with a Theme role, the verb is used as an unaccusative verb. In contrast, when the subject is agentive or animate with an Agent role, the verb is an unergative verb. The contrast between (iii) and (iv) supports this solution: the adverb 'intentionally' is compatible only with an intentional/agentive subject. Only (iv) has such subject. I thank Howard Lasnik for giving me the set of examples that support the solution.

(iii) ?*There arrived a man intentionally.

(iv)  A man arrived intentionally.

*zi-sui-suru* in (118) have an external argument but lack an internal argument.

(119) a. *zi-kai      (-o)    suru

ZI-collapse (-Acc) do

'collapse oneself'

b. Zi-kai-si-kake-no        tatemono

ZI-collapse-do-KAKE-Gen building

'the building, collapse halfway'

(120) a. zi-sui      (-o)    suru

ZI-cooking (-Acc) do

'cook for oneself'

b. *Zi-sui-si-kake-no        musuko-o

ZI-cooking-do-KAKE-Gen son-Acc

'my son, almost cooking for himself'

Based on the results, I claim that verbal nouns used in *zi*-verbs like *zi-kai-suru* in (117) have an unaccusative structure, while verbal nouns used in *zi*-verbs like *zi-sui-suru* in (118) have an unergative structure.

If my claim that the verbal nouns in (117) and (118) are unaccusative and unergative, respectively, and they are intransitive is correct, the *zi*-affixes used in these verbs cannot be arguments, unlike the case of *zi*-verb like *zi-satu-suru* in (97). Otherwise, these arguments cannot be case-assigned. Below, I demonstrate that the affixes in the two verbs are both adjuncts with different meanings.

First, let me consider (117) that contains the *zi*-verb *zi-kai-suru* 'collapse.' To paraphrase the sentence, the unaccusative verb *taoreru* 'collapse' is used as in (121).

(121) Tatemono-ga  sizento  taoreru.

   building-Nom by itself collapse

   'The building collapses by itself.'

Here, adopting Kageyama (1996), I assume that intransitive (unaccusative) verbs of change of state, such as *break* in English and *taoreru* 'collapse (Int.)' in Japanese in (121), are derived from their transitive variants *break* and *taosu* 'collapse (Tran.),' respectively, by decausativization through the coidentification of the Causer and Causee/Theme participants. For example, in English, as (122) illustrates, the intransitive verb *break* in (122b) is derived from its transitive counterpart *break* in (122a). In Japanese as well, the intransitive verb *taoreru* 'collapse' in (121) is derived from its transitive counterpart *taosu* 'collapse' in (123). These verbs in (121) and (122b) are decausative verbs.

(122)  a.  He broke the vase.

    b.  The case broke *by itself*.

(123) Sagyouin-ga tatemono-o   taosu.

   worker-Nom building-Acc collapse.Pres

   'The workers collapse the building.'

Note that, in the Japanese example (121) and the English example (122b), each of the decausative verb occurs with the adverb *sizen-to* 'by itself' and *by itself*, respectively. Based on these observations, I assume that the *zi*-affix used in the *zi*-verb *zi-kai-suru*

'collapse' in (117) is an adverb that indicates the adverbial meaning 'by itself' and that the *zi*-verb in the example is an unaccusative decausative verb.

Now, I consider (118) that contains the *zi*-verb *zi-sui-suru* 'cook for oneself.' As reported in Takezawa (1991, 72), the verb *zi-sui-suru* can be paraphrased using the adverb *zibun-de* 'by oneself' (recall the adverb introduced in Section 2.1.2.4). Following his analysis, I claim that the *zi*-affix used in this class of *zi*-verb is also an adjunct and that (118) is paraphrased as (124) using the adverb *zibun-de* 'by oneself' and the unergative verb *ryouri-suru* 'cook.'

(124) John-ga    zibun-de ryouri-suru.

    John-Nom self-by    cooking-do.Pres

    'John cooks by himself.'

Notice that the *zi*-affix in (117) and the one in (118) are both adjuncts, but they have different meanings: the former means 'by itself,' while the latter means 'by oneself.' This contrast in meaning is attributed to the difference of the animacy of the subjects. The *zi*-verb in (117) is an unaccusative decausative verb that occurs with the inanimate subject *tatemono* 'building.' The adverb *sizento* 'by itself' in (121) is compatible with the inanimate subject. On the other hand, the *zi*-verb in (118) is an unergative verb. It occurs with the animate subject John. The adverb *zibun-de* 'by oneself' in (124) is compatible with the animate subject.

Putting what we have observed above together, the *zi*-verb in (117) and the one in (118) are categorized into different classes: the unaccusative (decausative) verb with the adverbial *zi*-affix 'by itself' and the unergative verb with the adverbial *zi*-affix 'by

oneself.' Under my proposal, the relevant parts of the derivations of the sentences (117), repeated here as (125a), and (118), repeated below as (126a), have structures like (125b) and (126b), respectively.

(125) a. Tatemono-ga (*yane-o) zi-kai-suru.  (= (117))

      building-Nom roof-Acc ZI-collapse-do.Pres

      'The building collapses.' / *'The building collapses its roof.'

b.

```
                    vP
             _____
                        v'
                     _____
             VP              v
          _____
       VNP        V  [BECOME]
      _____      |
    Adv   VN'    suru
     |   _____
    zi- DP    VN
         |     |
     tatemono -kai
```
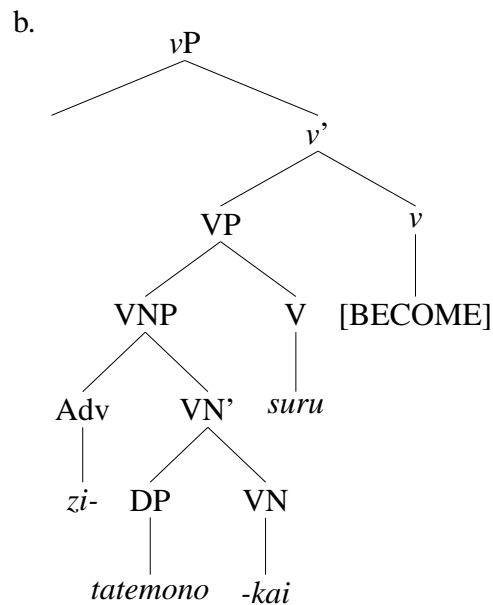
(126) a. John-ga (*yuusyoku-o) zi-sui-si-ta.  (= (118))

      John-Nom supper-Acc ZI-cooking-do-Past

      'John cooked by himself.' / *'John cooked supper for himself.'

b.

```
                    vP
                  /    \
                DP      v'
                |      /  \
              John   VP    v
                    /  \   |
                 VNP    V [DO]
                 / \    |
              Adv  VN  suru
               |    |
              zi-  -sui
```
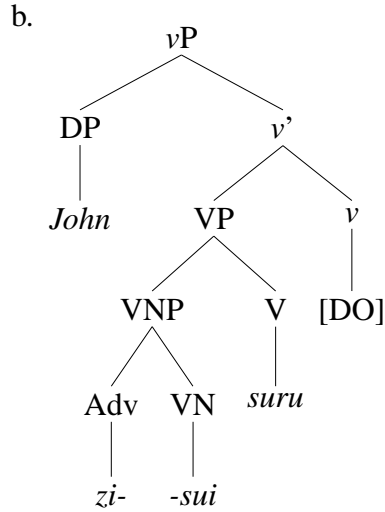
In both derivations, the *zi*-affix is an adverb. The *zi*-verb in (125b) has an unaccusative structure: the external argument *tatemono* 'building' is originally in the internal argument of the verbal noun *kai* 'collapse' and it undergoes movement to [Spec, *v*P] to get Nominative case. The *v* has the value BECOME. In contrast, the *zi*-verb in (126b) has an unergative structure: the external argument John originates in [Spec, *v*P], and the value of *v* is DO. The verbal nouns in both cases are intransitive. As they cannot assign case, these *zi*-verbs cannot occur with object arguments.

Recall the generalization proposed in Geniušiene (1987) on page 68: if a language has a verbal affix for both reflexive and decausative constructions, it uses the same affix for the constructions. In Japanese, this generalization holds: the same affix *zi-* is used in both reflexive and decausative constructions as in (115) and (117).[43]

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[43] Recall Footnote 38 of this chapter: the *zi-/ziko-* affixal anaphors (NPs) in reflexive constructions and the adjunct *zi-/ziko-*affixes in decausative (and other) constructions might be just homonyms. Then, it is just a coincidence that the affixal anaphors in reflexive constructions and the adjunct morphemes in decausative constructions are in the same form and pronounced identically, aside from Geniušiene's generalization.

I do not think *ziko*-verbs that cannot occur with objects, such as *ziko-hihan-suru* 'criticize oneself' in (95b), are further classified into smaller classes. All the *ziko*-verbs of this class are reflexive verbs: they have the *ziko*-affix as the internal argument of the verbal nouns, as we have reviewed in Section 2.3.1.2.

## 2.3.2.2   Non-reflexive *Zi-/Ziko*-verbs with objects

Now, let me consider *zi*-verbs and *ziko*-verbs that can occur with an object argument, such as *zi-man-suru* in (127a) and *ziko-sinsei-suru* 'apply by oneself' in (128a). I assume that these *zi-/ziko*-verbs are not reflexive verbs and that the *zi-/ziko*-affix used in this class of *zi-/ziko*-verb functions as an adverb. (127a) can be paraphrased as (127b), using the transitive verb *hokoru* 'boast about.' The *zi-* part is paraphrased as *mizukara* 'by oneself.' Also, (128a) can be paraphrased as (128b), using the transitive verb *sinsei-suru* 'apply.' In this case, the *ziko*-affix is translated as *zibun-de* 'by oneself.'

(127)  a. John-wa  { musuko / sigoto }-o zi-man-si-ta.

       John-Top { son / job }-Acc      ZI-boast-do-Past

       'John boasted about { his son / his job } by himself.'

     b. John-wa  { musuko / sigoto }-o mizukara   hokot-ta.

       John-Top { son / job }-Acc      voluntarily boast-Past

       'John voluntarily boasted about { his son / his job }.'

(128)  a. John-wa  { kiroku / menkyo }-o     ziko-sinsei-si-ta.

       John-Top { record / licentiate }-Acc ZIKO-application-do-Past

       'John applied { his record / his licentiate } by himself.'

b. John-wa  { kiroku / menkyo }-o      zibun-de   sinsei-si-ta.

John-Top { record / licentiate }-Acc  by oneself application-do-Past

'John applied { his record / his licentiate } by himself.'[44]

In these verbs, the *zi-/ziko*-affixes are not arguments and they do not need to be case-marked. I assume that the verbal nouns *man* 'boast' and *sinsei* 'application' in (127) are transitive, as are the verbs in (128). These verbal nouns can assign case, so the *zi-/ziko*-verbs can take object arguments in (127).

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[44]Although *zi*- is paraphrased as *mizukara* in (127) and *ziko*- is paraphrased as *zibun-de* in (128), this correspondence does not hold in all the cases. The meaning of the *zi-/ziko*-affixes that function as adverbs differs depending on *zi*-verbs and *ziko*-verbs. The *zi*-affix means *mizukara* 'voluntarily' in some cases, as in (127b), but the same affix means *zibun-de* 'by oneself' in other cases: the *zi*-verb *zi-haku-suru* 'confess' in (i) can be paraphrased as (ii). On the other hand, the *ziko*-affix in (128b) means *zibun-de* 'by oneself,' while the same affix can mean *mizukara* 'voluntarily' in (iii). The sentence can be paraphrased as (iv).

(i) John-wa  hanzai-o   zi-haku-si-ta.

John-Top crime-Acc Zi-confession-do-Past
'John confessed his crime by himself.'

(ii) John-wa  hanzai-o   zibun-de   kokuhaku-si-ta.

John-Top crime-Acc by oneself confession-do-Past
'John confessed his crime by himself.'

(iii) John-wa  keturon-o       ziko-kanketu-si-ta.

John-Top conclusion-Acc Ziko-completion-do-Past
'John completed the conclusion by himself.'

(iv) John-wa  keturon-o       mizukara   kanketu-si-ta.

John-Top conclusion-Acc voluntarily completion-do-Past
'John voluntarily completed the conclusion.'

Under my proposal, the sentence (129a) has the derivation given in (129b): the adjunct *zi*-affix undergoes successive syntactic incorporation through the verbal noun and the light verb *suru* 'do' into the *v* head with the value DO and becomes a complex predicate. My proposal is that verbal nouns used in these verbs are transitive and can assign case to its object argument, namely *musuko* 'son' in (129).

(129)  a. John-ga    musuko-o zi-man-si-ta.

       John-Nom son-Acc   ZI-boast-do-Past

       'John boasted about his son by himself.'

   b.
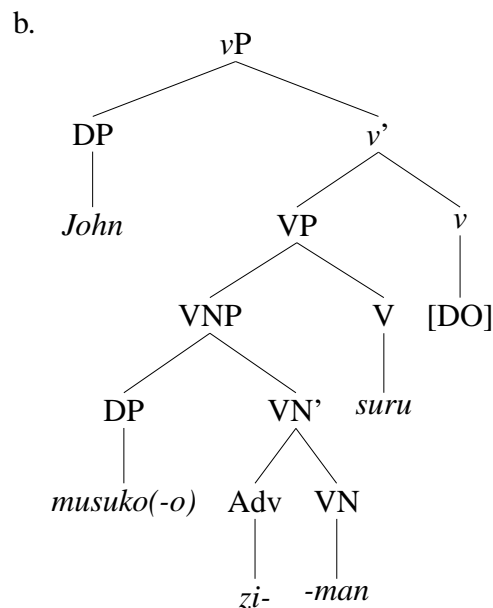


Compare this structure to (115b), the structure for the reflexive type of *zi*-verb that cannot occur with an object, namely *zi-satu-suru* 'kill oneself.' The verbal noun in *zi-satu-suru*, namely *satu* 'killing' is transitive. It assigns accusative case to its internal argument *zi-*, so the complex verb cannot occur with a surface object argument. In (129) as well, the verbal noun *man* 'boast' is transitive. However, there is a crucial difference between the

two structures. In (129), the *zi*-affix is an adjunct, not an internal argument. The verbal noun can assign accusative case to a surface object argument, namely *musuko* 'son.'

## 2.3.3 Summary

The types of *zi*-verbs and *ziko*-verbs, example verbs of each type and their properties are listed in the chart (130). The chart (130) contains only one example verb of each class, and other example verbs are listed in (131).

(130) Types of *Zi*-verbs / *Ziko*-verbs

| Type | Example | w/ Obj? | Affix | Ref V? |
|---|---|---|---|---|
| *Zi*-V | *zi-satu-suru* 'kill oneself' | No | Int. Arg. 'self' | Yes |
| *Ziko*-V | *ziko-syoukai-suru* 'introduce oneself' | | | |
| *Zi*-V | *zi-kai-suru* 'collapse' | No | Adv. 'by itself' | No |
| *Zi*-V | *zi-sui-suru* 'cook by oneself' | No | Adv. 'by oneself' | |
| *Zi*-V | *zi-man-suru* 'boast about oneself' | Yes | Adv. 'by oneself' | |
| *Ziko*-V | *ziko-kanri-suru* 'control by oneself' | | | |

(131) a. Reflexive *zi*-verbs like *zi-satu-suru* 'kill oneself':

    *zi-ritu-suru* 'establish oneself'

    *zi-metu-suru* 'ruin oneself'

    *zi-si-suru* 'kill oneself'

b. Reflexive *ziko*-verbs like *ziko-syoukai-suru* 'introduce oneself':

    *ziko-hihan-suru* 'criticize oneself'

    *ziko-suisen-suru* 'nominate oneself'

    *ziko-giman-suru* 'deceive oneself'

    *ziko-bouei-suru* 'defend oneself; do self-defense'

c. Non-reflexive unaccusative *zi*-verbs like *zi-kai-suru* 'collapse':

    *zi-baku-suru* 'explode'

    *zi-ten-suru* 'rotate'

    *zi-sou-suru* 'run by its own power'

d. Non-reflexive unergative *zi*-verbs like *zi-sui-suru* 'cook by oneself':

    *zi-katu-suru* 'live by oneself'

    *zi-syuu-suru* 'study by oneself'

    *zi-doku-suru* 'read by oneself'

e. Non-reflexive transitive *zi*-verbs like *zi-man-suru* 'boast about oneself':

    *zi-san-suru* 'blow one's (own) horn; praise oneself'

    *zi-kaku-suru* 'become aware of'

    *zi-syu-suru* 'be voluntarily surrendered,'

    *zi-kyou-suru* 'turn oneself in: confess'

f. Non-reflexive transitive *ziko*-verbs like *ziko-kanri-suru* 'control by oneself':

*ziko-kaiketu-suru* 'answer one's own question'

*ziko-hyouka-suru* 'make a self-assessment'

*ziko-sinkoku-suru* 'make a declaration by oneself'

Under my proposal, *zi*-verbs that cannot occur with objects are classified into three types: in addition to the reflexive type of *zi*-verb such as *zi-satu-suru* 'kill oneself' in which the *zi*-affix functions as an anaphoric internal argument, there are two types of non-reflexive *zi*-verb. In one type of verb, such as *zi-kai-suru* 'collapse by itself,' the *zi*-affix functions as an adverb that means 'by itself' and whose subject is inanimate/non-agentive. In the other type of verb, such as *zi-sui-suru* 'cook by oneself,' the *zi*-affix functions as an adverb that means 'by oneself' and whose subject is animate/agentive. Although Tsujimura and Aikawa (1996, 1999) uniformly categorize *zi*-verbs that cannot occur with an object as reflexive verbs, I have shown that these verbs have to be sub-categorized.[45]

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[45]While the number of reflexive *zi-/ziko*-verbs and non-reflexive unaccusative and unergative *zi*-verbs is limited, there are many non-reflexive *zi-/ziko*-verbs that can occur with object arguments. The *zi-/ziko*-affixes used in these verbs are adjuncts and they can productively attach. They attach not only to Sino-Japanese verbs but also to English-origin loan verbs (an English origin verbal noun + *suru* 'do'), such as *apiiru-suru* 'appeal' and *PR-suru* 'promote,' as in (i) and (ii).

(i) Mary-wa  tokugi-o         apiiru-si-ta.
   Mary-Top accomplishment-Acc appeal-do-Past
   'Mary appealed her accomplishment.'

(ii) Mary-wa  tokugi-o         ziko-apiiru-si-ta.
   Mary-Top accomplishment-Acc ZIKO-appeal-do-Past
   'Mary appealed her accomplishment by herself.'

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In this thesis, I regard only *zi*-verbs and *ziko*-verbs that do not occur with object argument and their affixes function as their internal argument as reflexive verbs. Other classes of verb are not reflexive verbs. Only the *zi-/ziko*-affixes used in reflexive verbs are reflexive anaphors. I will focus only on these *zi-/ziko*-affixes in the later chapters. Other *zi-/ziko*-affixes are adjuncts, and I will not discuss these.

## 2.4   Other elements

In this section, I consider reflexive elements that few previous studies have focused on. There are many studies on *zibun* 'self,' and some of them compare *zibun* with *zibun-zisin* 'self-self,' and a couple of studies have worked on the affixal type anaphor. However, Japanese has more reflexive elements: *zisin* 'self,' *ziko* 'self' and *mizukara* 'self.' In this subsection, I test if these items share properties with other reflexive anaphors such as *zibun* in three aspects: Subject orientation, Animacy restriction and local binding requirement. Also, I show if these items have the empathic and logophoric usages, in addition to the reflexive usage.

### 2.4.1   *Zisin*

In Section 2.2.1, we have seen that Japanese has the adnominal intensifier affix *-zísin* '-Self.' This language has a non-affix (free morpheme) *zisin* 'self' as well, as (132) illustrates.[46]

_____

[46]Japanese has a non-affix *zibun* 'self,' but not an affix *-zibun*.

(132) John-wa  zisin-o   seme-ta.

   John-Top self-Acc blame-Past

   'John blamed himself.'

Like *zibun*, *zisin* is subject-oriented as in (133). The subject John is a legitimate antecedent, while the indirect object Bill is not.

(133) John-wa  Bill-ni   zisin-nituite hanasi-ta.

   John-Top Bill-Dat self-about    tell-Past

   'John$_i$ told Bill$_j$ about himself$_{i/*j}$.'

*Zisin* has an Animacy restriction. See the contrast in acceptability between (132) and (134). In (132), the subject John is animate and the sentence is acceptable. In contrast, in (134), the subject is *sinbun* 'newspaper' and this is inanimate. This is not a legitimate antecedent for *zisin* and the sentence is excluded.

(134)∗ Sono sinbun-ga     kaze-ni zisin-o   hiroge-ta.

    that   newspaper-Nom wind-in self-Acc unfold-Past

   'The newspaper unfolded itself in the wind.'

*Zisin* has both the reflexive and non-reflexive usages, like *zibun*. As (135) indicates, it allows a long-distance antecedent, though it prefers a local antecedent: the local antecedent (*k*) reading is preferred to the non-local antecedent (*i*) reading.

(135) John-wa Joe-ni  Mary-ga   zisin-o   seme-ta   to    it-ta.

   John-Top Joe-Dat Mary-Nom self-Acc blame-Past Comp say-Past

   'John$_i$ told Joe$_j$ that Mary$_k$ blamed self$_{?i/*j/k}$.'

From the observation so far, I conclude that *zisin* can be used quite interchangeably with *zibun*. Then, when is *zisin* used and when is *zibun* used?

The distribution of the two anaphors depends on their cooccuring verbs. *Zisin* can felicitously occur with predicates that describe an abstract action such as *hihan-suru* 'criticize' as in (136a) and *semeru* 'blame,' but it does not felicitously occur with predicates that describe physical action, such as *miru* 'see' as in (136b) and *yubisasu* 'point at.' In contrast, *zibun* does not have such a restriction: *zibun* is allowed in both (136a) and (136b).[47]

(136)   a.  John-wa   {zisin / zibun}-o   hihan-si-ta.

        John-Top {self   / self}-Acc criticism-do-Past

        'John criticized himself.'

    b.  John-wa   (kagami-no nakade) {??zisin / zibun}-o   mi-ta.

        John-Top mirror-Gen inside    {self     / self}-Acc see-Past

        'John saw himself (in the mirror).'

The contrast of the acceptability between the two expressions (136b) indicates that while *zisin* felicitously occurs only with psychological verbs and the element refers to a more abstract thing (the reference need not to be visible/touchable), *zibun* can occur with another type of verbs that describe physical actions as well and this element can refer to a physical/concrete object (what you can see or what you can point at).

The difference between *zisin* and *zibun* looks similar to the difference between the

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[47]*Zibun* also has a restriction on its cooccuring verbs, as we have seen in the contrast between (6a) and (6b). I will come back to this issue in Chapter 5.

two types of Korean anaphor *caki* 'self' and *casin* 'self.' It is more likely that *caki* occurs with psychological predicates, such as *kippukey-ha-ta* 'please' and *mwusepkey-ha-ta* 'fear,' while *casin* occurs with action predicates like *ttayli* 'hit' and *kick* (Cho, 2008).[48] Consider (137). In (137b), *caki* can be felicitously used with a psychological predicate *pikwanha-ta* 'despair of,' while in (137a), *caki* cannot occur with the predicate *ttayli* 'hit' that describes more physical action.[49]

(137)  a.  John-i     caki-lul  ttayli-ess-ta.                                    [Korean]

John-Nom self-Acc hit-Past-Decl

'John$_i$ hit himself $_{??i/*i}$.'


   b.  John-i     caki-lul  pikwanhay-ss-ta

John-Nom self-Acc despair.of-Past-Decl

'John$_i$ despaired of himself$_i$.'                    (Cho, 2008, (2b,c))

*Casin*, the other anaphor, does not have such a restriction. In (138), it can be felicitously used with the physical predicate in (137a).

(138)  John-i     casin-lul ttayli-ess-ta.

John-Nom self-Acc hit-Past-Decl

'John kicked himself.'

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[48]Im (1987) reports that *caki* takes a [+conscious] antecedent, while *casin* takes a [–conscious] antecedent.

[49]Robert Ramsey points out to me that if *caki casin*, instead of *caki* in (137a) and instead of *casin* in (138), is used, the sentences get idiomatic meanings. As we have seen on Page 13, Japanese also has idioms that consist of *zibun* and a verb. Although Korean has idioms consists of *caki casin* and verbs for 'hit' and 'kick,' Japanese does not have idioms that contain these verbs.

These Korean data as well as the Japanese data above show that the types of reflexive and the ones of predicate have a strong relation. I discuss the relation between the two in Chapter 5.

Now, let us see if there are empathic *zisin* and logophoric *zisin*. I replace empathic *zibun* in (25) to *zisin*, as in (139), to see if Japanese has empathic *zisin*.

(139)  a. * Taro$_i$-wa [ Hanako-ga    zisin$_i$-ni kasite yat-ta]    okane-o    tukatte-simat-ta.

         Taro-Top   Hanako-Nom self-Dat lend   Ben-Past money-Acc spend-end.up-Past

       b.  Taro$_i$-wa [ Hanako-ga    zisin$_i$-ni kasite kure-ta] okane-o    tukatte-simat-ta.

         Taro-Top   Hanako-Nom self-Dat lend   Ben-Past money-Acc spend-end.up-Past

         'Taro$_i$ has spent all the money that Hanako lend to him$_i$.'

As in the case of empathic *zibun*, when *zisin* refers to the matrix subject Taro, the non-subject-centered auxiliary verb *kureru* has to be used as in (139b). If the subject-centered auxiliary verb *yaru* is used as in (139a), the sentence is not allowed because an empathy locus conflict occurs. Also, *zisin* in (139b) can be replaced by the personal pronoun *kare* 'him' without changing the meaning. From this observation, I determine that Japanese has empathic *zisin*.

How about logophoric *zisin*? I replace logophoric *zibun* in (36) to *zisin* as in (140).

(140)  John$_i$-wa [ zisin$_i$-ga Bill-o    tasuke-ta ] to    omot-teiru.

       J-Top    self-Nom  Bill-Acc help-Past   Comp believe-Asp.Pres

       'John$_i$ believes that he$_i$ helped Bill.'

The sentence can be used only under the situation in which the subject John believes: 'I helped Bill,' but not under the situation in which the subject is not aware of the fact that

the reference of *zisin* is he himself. *Zisin* in this example elicits a *de se* interpretation. I conclude that Japanese has logophoric *zisin*.

## 2.4.2 *Ziko*

We have seen that Japanese has the affix *ziko-* 'self-' in Section 2.3. This language has the non-affixal *ziko* 'self' as well.[50] I show what behavior the non-affixal *ziko* shows. First of all, the non-affixal use of *ziko* is rarely used in colloquial speech. This item is used almost exclusively in idioms in colloquial speech. *Ziko* idioms consist of *ziko* and a verb, such as *ziko-o takameru* 'move oneself higher' in (141).

(141)  John-wa   ziko-o    takame tai.

    John-Top self-Acc lift      Des

    'John wants to move himself higher.'

*Ziko* in idioms refers to its (local) coargument subject. I regard *ziko* in idioms as a reflexive element, in the same reason as the case of reflexive *zibun* used in *zibun* idioms (see the discussion on page 14). In addition to the one in (141), there are many idioms in which *ziko* occurs as an object of a verb such as *ziko-o kitaeru* 'discipline oneself,' *ziko-o mitumeru* 'find oneself' and *ziko-o ituwaru* 'kid oneself.'

*Ziko* functions as a reflexive element in non-idiomatic environments too, though this usage is very rarely. I test if *ziko* shares properties with other reflexive elements. Like *zibun* and *zisin*, *ziko* is subject-oriented as in (142). This item also has an Animacy restriction: compare (141), on the one hand, with (143), on the other. In (141), the subject

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[50]Japanese does not have a non-affixal *zi*.

is animate, while the subject in (143) is inanimate. The latter case is excluded.

(142) John-wa  Bill-ni   ziko-nituite hanasi-ta.

John-Top Bill-Dat self-about   tell-Past

'John$_i$ told Bill$_j$ about himself$_{i/*j}$.'

(143)* Sono sinbun-ga       kaze-ni ziko-o   hiroge-ta.

that   newspaper-Nom wind-in self-Acc unfold-Past

'The newspaper unfolded itself in the wind.'

*Ziko* does not allow the non-local subject and allows only the local antecedent in (144).

(144) John-wa  Mary-ga    ziko-nituite hanasi-ta to     omot-ta.

John-Top Mary-Nom self-about   talk-Past Comp think-Past

'John$_i$ thought that Mary$_j$ talked about self$_{*i/j}$.'

I cannot test if *ziko* has the other two usage: empathic and logophoric, because this item is rarely used in the non-idiomatic usages and it is hard to test the availability. If the element has these non-reflexive usages is not clear. What is clear is that *ziko* is rarely used in colloquial speech and found almost only in idioms. I tentatively conclude that *ziko* as a non-affixal anaphor has only the reflexive usage.

### 2.4.3 *Mizukara*

Japanese has one more reflexive element *mizukara* 'self' in (145).[51]

(145) John-wa  mizukara-o seme-ta.

   John-Top self-Acc    blame-Past

   'John blamed himself.'

*Mizukara* shares the properties with *zisin* with respect to Subject-orientation and Animacy restriction. (146) shows that *mizukara* refers to a subject but not an object. It requires an animate antecedent: in (147), it cannot take the inanimate subject as its antecedent.

(146) John-wa  Bill-ni   mizukara-nituite hanasi-ta.

   John-Top Bill-Dat self-about        tell-Past

   'John$_i$ told Bill$_j$ about himself$_{i/*j}$.'

(147)* Sono sinbun-ga       kaze-ni  mizukara-o hiroge-ta.

    that   newspaper-Nom wind-in self-Acc     unfold-Past

   'The newspaper unfolded itself in the wind.'

---

[51]Katada (1988) proposes that *mizukara* is an anaphor with a phrasal structure like (iii), as is *zibun-zisin* in (ii). *Zibun* is, in contrast, is a lexical (non-phrasal) anaphor as illustrated in (i).
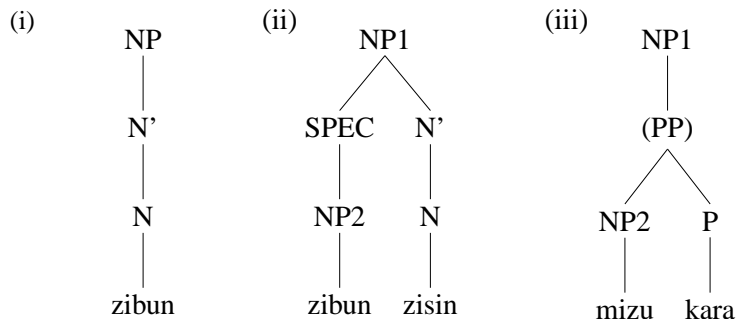
Unlike *zibun* and *zisin*, however, *mizukara* cannot refer to a non-local antecedent: in (148), the matrix subject John is not a possible antecedent. It allows only the local antecedent Mary.

(148) John-wa Joe-ni Mary-ga mizukara-o seme-ta to it-ta.

　　　John-Top Joe-Dat Mary-Nom self-Acc 　blame-Past Comp say-Past

　　　'John$_i$ told Joe$_j$ that Mary$_k$ blamed self$_{*i/*j/k}$.'

Further, in (148), this item has a contrastive or contrary-to-expectation meaning, as in the case of *zibun-zísin* reviewed in Section 2.2.1. The sentence means: John told Joe that Mary blamed herself, not someone else. *Mizukara* in the reflexive usage has an additional contrastive meaning.

Let us test if there are empathic *mizukara* and logophoric *mizukara*. Consider (149) first to see if *mizukara* has the empathic usage.

(149) a. * Taro$_i$-wa [ Hanako-ga 　mizukara$_i$-ni kasite yat-ta] 　okane-o 　　tukatte-simat-ta.

　　　　　Taro-Top 　Hanako-Nom self-Dat 　　lend 　Ben-Past money-Acc spend-end.up-Past

　　 b. Taro$_i$-wa [ Hanako-ga 　mizukara$_i$-ni kasite kure-ta] okane-o 　　tukatte-simat-ta.

　　　　　Taro-Top 　Hanako-Nom self-Dat 　　lend 　Ben-Past money-Acc spend-end.up-Past

　　　　　'Taro$_i$ has spent all the money that Hanako lend to him$_i$.'

When *mizukara* refers to the matrix subject Taro, the auxiliary verb of the relative clause has to be the non-subject-centered verb *kureru*, not the subject-centered *yaru*. This is borne out in (149): while (149a) with *yaru* is excluded, (149b) with *kureru* is allowed. *Mizukara* in this example functions as an empathic element.

Now observe (150) to see if *mizukara* has the logophoric usage. The sentence is available when the reference of *mizukara* is aware of the event. This sentence cannot be followed by the sentence (151) in which *sono otoko* 'that man' refers to *mizukara*. Thus, there is the logophoric type of *mizukara* as well.

(150)  John$_i$-wa [ mizukara$_i$-ga Bill-o    tasuke-ta ] to    omot-teiru.

J-Top    self-Nom       Bill-Acc help-Past   Comp believe-Asp.Pres

'John$_i$ believes that he$_i$ helped Bill.'

(151)  Sikasi sono otoko-wa sin desimat-ta to    it-ta.

but    that  man-Top die Asp-Past   Comp say-Past

'However, he said that the man has already passed away.'

In addition to the non-affixal usage, *mizukara* has the affixal usage. It can function as an adnominal intensifier, as does *-zísin* '-Self' (recall Section 2.2.1). In (152), it attaches to the subject argument *tyosya* 'author' and intensifies the noun. This affix can attach only to animate elements. (153) in which the affix attaches to an inanimate element *hondana* 'bookshelf' is not allowed.

(152)  Tyosya-**mizukara**-ga honya-de    hon-o    ut-ta.

author-Self-Nom       book.store-at book-Acc sell-Past

'The author himself sold his books at the book store.'

(153)* Hondana-**mizukara**-ga taore-ta.

bookshelf-Self-Nom    fall-Past

'The bookshelf itself fell.'

Furthermore, *mizukara* has another usage as an adverb that means 'voluntarily' (recall that Japanese has the idiom *zibun-kara* 'voluntarily' that we reviewed in Section 2.1.2.4). When *mizukara* stands alone, it functions as an adverb. In (154), this item is used as an adverb that modifies the selling event by the subject *tyosya* 'the author.' This idiom is available only subjects are animate, as the contrast of the acceptability between (154) and (155) indicates.

(154) Tyosya-ga **mizukara** honya-de hon-o ut-ta.

author-Nom self book.store-at book-Acc sell-Past

'The author voluntarily sold his books at the book store.'

(155)* Hondana-ga **mizukara** taore-ta.

bookshelf-Nom self fall-Past

'The bookshelf voluntarily fell.'

## 2.4.4 Summary

In addition to the well-studied anaphors *zibun* and *zibun-zisin*, Japanese has more anaphors: *zisin*, *ziko* and *mizukara*. The chart (156) summarizes what we observed in this subsection: (a) Subject orientation, (b) Animacy restriction , (c) non-local binding, (d) empathic usage, (e) logophoric usage, (f) function in the affixal form, and (g) distinctive property as a reflexive.

(156) Properties of Items

| Item | (a) | (b) | (c) | (d) | (e) | (f) | (g) |
|------|-----|-----|-----|-----|-----|-----|-----|
| *zisin* | yes | yes | yes? | yes | yes | intensifier suffix | w/ psychological verb |
| *ziko* | yes | yes | no | – | – | anaphor prefix | mainly in idioms |
| *mizukara* | yes | yes | no | yes | yes | intensifier suffix | contrastive meaning |

Like the reflexive type of *zibun*, all the items are subject-oriented, have Animacy restrictions, and require local coargument antecedents. Each item has an affixal usage as well: Japanese has the adnominal intensifier suffix *-zisin* (recall Section 2.2.1), the anaphor prefix *ziko-* (Section 2.3.1.2), and the adnominal intensifier suffix *-mizukara* (Section 2.4.3).[52] *Mizukara* has another usage as an adverb in the non-affix form.

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[52]Japanese has an adnominal intensifier affix that can attach to non-animate elements: *-zitai*. In (i), the affix attaches to the subject *peepaa* 'paper.' This item, however, is not used as a free morpheme. (ii) is not excluded because of any violation such as the Animacy restriction violation. This sentence is not allowed just because Japanese does not have a free morpheme *zitai*.

(i)  Peepaa-**zitai**-wa ii-ga     happyou-ga      yoku-nai.

   paper-itself-Top good-but presentation-Nom good-Neg

   'His paper <u>itself</u> is fine, but his presentation is not good.'

(ii)* Sono sinbun-ga       kaze-ni zitai-o   hiroge-ta.

   that  newspaper-Nom wind-in self-Acc unfold-Past

   'The newspaper unfolded itself in the wind.'

The observations in this section have opened up the untouched area of the anaphor research in Japanese. These items are rarely used in their non-affixal forms in colloquial speech, and they are used in their affixal forms most of the time. In the later chapters, I will discuss the reflexive usages of *zisin* and *mizukara* in addition to the reflexive type of *zibun*, *zibun-zisin*, and *zi-/ziko*-affixes. I do not discuss the reflexive usage of *ziko*, since this item is rarely used in non-idiomatic usages.

## 2.5   Chapter summary

In this chapter, I have laid out the properties of reflexive elements and elements that are often confounded as reflexives in Japanese: *zibun*, *zibun-zisin*, *zi-/ziko*-affixes and some other elements. I have shown that not all these items are used as reflexive elements, contrary to some previous works that regard these items uniformly as reflexive elements. The separation of genuine reflexive elements from apparent reflexive elements is important to comprehend reflexives in Japanese.

*Zibun* has been regarded as a reflexive anaphor that is subject to Subject orientation as well as other constraints, and several "counterexamples" in which *zibun* is not subject-oriented are reported. If there are several types of *zibun* and the non-reflexive types of *zibun* are not subject to Subject orientation, then the apparent counterexamples are not counterexamples. I have claimed that there are three types of *zibun*: reflexive, empathic and logophoric, adopting Hirose (2002) and Oshima (2004, 2006). I have claimed that reflexive *zibun* has to be locally bound and it is subject-oriented. The non-reflexive types of *zibun*, in contrast, do not obey the same restrictions. We have also seen that there

are four types of *zibun-zisin*: the anaphor, the intensified form of reflexive *zibun*, the intensified form of empathic *zibun* and the intensified form of logophoric *zibun*. The former two types of *zibun-zisin* require a local antecedent, while the latter two do not. Also, we have reviewed the nature of *zi-/ziko*-affixes and *zi-/ziko*-verbs. In some *zi-/ziko*-verbs, *zi-/ziko*-affixes function as an internal argument of verbal noun and these affixes are reflexive anaphors. In contrast, when the same affixes function as adverbs in other *zi-/ziko*-verbs, these affixes are not reflexive anaphors. I have concluded that only *zi-/ziko*-verbs of the former type are reflexive verbs. I have shown the properties of *zisin*, *ziko* and *mizukara*, that few previous studies have focused on, in their non-affixal usages. These items share many properties with *zibun*.

This chapter has separated elements that are really reflexive anaphors from the elements that are actually not. I list the genuine reflexive anaphors that I will focus on in the later chapters in (157). All the reflexive items share the properties: (a) local binding by coargument, (b) subject-orientation, and (c) Animacy restriction.

(157)  Genuine Reflexive Anaphors in Japanese

| Item | distinctive properties (if they have) |
|---|---|
| *zibun* | |
| *zibun-zisin* | |
| *zibun-zísin* | intensified form of *zibun*; has contrastive meaning |
| *zi-/ziko*-affixes | morphologically incorporated internal argument |
| *zisin* | [rarely used] |
| *mizukara* | has contrastive meaning          [rarely used] |

All the items in (157) are locally bound by their coargument, so they are subject to the Binding Principle A: an anaphor is bound in its local domain (Chomsky, 1981, 1986). The principle regulates the syntactic distribution of reflexive anaphors, but we would need to additional conditions or explanation to capture differences among these multiple forms of reflexive anaphor, if they have different properties. I will consider how these multiple forms of anaphor differ and how they are classified in the following chapter.

# Chapter 3

## Differences among Reflexives

In this chapter, I consider how reflexive elements in one language differ and how they are classified. In Chapter 2, we have seen that Japanese has more than one form of reflexive anaphor: *zibun* 'self,' *zibun-zisin* 'self-self' (two usages as an anaphor and as the intensified form of reflexive *zibun*), *zi-/ziko*-affixes 'self-,' *zisin* 'self' and *mizukara* 'self.' Not only Japanese but other languages also have multiple forms for anaphor: for example, Dutch has gender-unspecified *zich* 'self' and *zichzelf* 'selfself' and gender-specified *'m zelf* 'himself,' and Korean has *caki* 'self,' *casin* 'self,' *caki-casin* 'self-self,' *ca-/caki-* 'self-' and *ku-casin* 'him-self.' Because all the reflexive anaphors in Japanese are locally bound, the Binding Principle A (Chomsky, 1981, 1986) in (158) would regulate the syntactic behavior of the items.

(158) An anaphor is bound in a local domain. (= (3a))

(Chomsky, 1986, 166)

We would, however, need additional conditions if these multiple forms of anaphor have different properties. In Sections 3.1-3.3, I review three previous studies that observe languages that have multiple forms of reflexive anaphor and I propose how to classify anaphors into subtypes: Reinhart and Reuland (1993), Lidz (1996, 2001a,b) and Liu (2003). These works discuss quite a number of languages, but not Japanese. I review how each analysis classifies anaphors in a language. In Section 3.4, I apply these analyses

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to Japanese reflexive anaphors: *zibun* 'self,' *zibun-zisin* 'self-self,' *zibun-zísin* 'self-Self' and *zi-/ziko*-affixes 'self-.'[1] By so doing, I show that the reflexive elements show semantic differences in several environments. I aim to find a way to properly differentiate and classify reflexive elements in Japanese. Section 3.5 is the summary of this chapter.

## 3.1   Reinhart and Reuland (1993)

### 3.1.1   Reflexivizer anaphor

Reinhart and Reuland (1993) claim that there is no simple distinction between anaphors and pronouns. They propose two properties [SELF] and [R] and partition NPs into some classes by the two properties. If an element is marked [+SELF], it is able to reflexivize a predicate, or it adds reflexivity to a predicate that lacks inherent reflexivity, by imposing identity between coarguments of the predicate. When an element is marked [+R] ('R' represents 'referentially independent'), the element is fully specified for phi-features. Under their proposal, NPs are classified as summarized in (159).

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[1]I assume that Japanese has two more types of reflexive elements: *zisin* and *mizukara* that require local coargument antecedents, as discussed in Section 2.4 (see the chart in (157)). I, however, will consider these anaphors only in Chapter 4 when I discuss the classification of Japanese anaphors and in Chapter 5 when I consider the relation between the type of predicate and the one of reflexive.

(159)

|        | SELF-anaphor | SE-anaphor | Pronoun / R-expression |
|--------|:---:|:---:|:---:|
| [SELF] | + | – | – |
| [R]    | – | – | + |

Only one type of anaphor has the property [+SELF] and other elements do not. They call this type of anaphor with the [+SELF] property a 'reflexivizer' anaphor. In contrast, only pronouns and R-expressions have the [+R] property. Anaphors lack this property.

Reinhart and Reuland introduce two types of anaphors: SELF-anaphors and SE (Simple Expression)-anaphors. These two types of anaphors differ in their morphological complexity and syntactic function. SELF-anaphors are morphologically complex or poly-morphemic, such as *zich-zelf* 'self-self' in Dutch and *sich-selbst* 'self-self' in German, and they function as reflexivizers. On the other hand, SE-anaphors are morphologically simple or monomorphemic, such as *zich* 'self' in Dutch and *sich* 'self' in German. These anaphors do not have the reflexivizing function.

Now, let us observe the sentences in Dutch in (160)-(164) that illustrate the distri-bution of SELF-anaphors and SE-anaphors.

(160)  Max wast     {zichzelf / zich}.                                        [Dutch]

        washes {SELF / SE}

   'Max washes himself.'

(161) Max haat {zichzelf/*zich}.

      hates {SELF/*SE}

  'Max hates himself.'

(162) Max gedraagt {zich/*zichzelf}.

      behaves {SE/*SELF}

  'Max behaves.'

(163) $Max_i$ legt het boek achter $zich_i$.

      puts the book behind SE

  'Max puts the book behind him.'

(164) $Max_i$ voelde [$zich_i$ wegglijden].

      felt   [SE   slide away]

  'Max felt him slide away.'           (Reuland and Everaert, 2001, 655-656)

The SE-anaphor *zich* 'self' appears as an argument of the verbs in (160) and (162), as an argument of a locative or directional PP in (163), and as a subject of an Exceptional Case-marking (ECM) construction in (164). This anaphor is not allowed as an argument in (161). The SELF-anaphor *zichzelf* 'selfself,' on the other hand, occurs as an argument of the verbs in (160) and (161), but not in (162). What makes the contrastive distribution between *zich* and *zichzelf* in (160)-(164)?

## 3.1.2   Reflexive-marked predicates

To account for these contrasting behaviors of SELF-anaphors and SE-anaphors, Reinhart and Reuland propose that some predicates are lexically specified as a reflexive

predicate, while some are not. Lexically reflexive predicates require SE-anaphors as their arguments: these predicates inherently have reflexivity, and they call for anaphors that do not have the reflexivizing function. For example, in (162), the inherently reflexive predicate *gedraagt* 'behave' takes the SE-anaphor *zich*. On the other hand, lexically non-reflexive predicates take SELF-arguments: the lack of inherent reflexivity in predicates is compensated by a SELF anaphor. For example, the non-reflexive predicate *haat* 'hate' in (161) requires the SELF-anaphor *zichzelf*. This anaphor reflexivizes the predicate. The predicate *wast* 'washes' in (160) allows both *zichzelf* and *zich*. Reinhart and Reuland claim that this is a third type of predicates: these predicates are doubly specified as non-reflexive and reflexive in the lexicon. When these verbs are used as non-reflexive verbs, they require the reflexivizer anaphor *zichzelf*. If they are used as reflexive verbs, they take the non-reflexivizer anaphor *zich*.

Reinhart and Reuland propose two conditions in (165) to regulate reflexivity, as alternative conditions for Chomsky's (1981,1986) Binding Principle A. A set of definitions given in (166) that are needed to understand their conditions in (165). They propose new notions 'syntactic predicate' in (166a) and 'semantic predicate' in (166b). They assume that the Conditions A and B apply in different levels, namely syntactic and semantic levels. Under their analysis, coindexing marks a pair or set of coindexed elements as 'reflexive' as in (166c). It does not cause a predicate to be semantically reflexive, as the ungrammatical cases in (161) and (162) show. There are two ways for a predicate to be reflexive-marked as defined in (166d): (a) a predicate is inherently specified as reflexive in the lexicon or (b) a predicate gets reflexivized by taking a reflexivizer anaphor. Reinhart and Reuland call the former type of predicate a lexically reflexive-marked predicate

and the latter a syntactically reflexive-marked predicate.

(165) a. Condition A: A reflexive-marked syntactic predicate is reflexive.

b. Condition B: A reflexive semantic predicate is reflexive-marked.

(Reinhart and Reuland, 1993, 678)

(166) a. The *syntactic predicate* of (a head) P is P, all its syntactic arguments, and an ex-
ternal argument of P (subject). The *syntactic arguments* of P are the projections
assigned theta-role or Case by P.

b. The *semantic predicate* of P is P and all its arguments at the relevant semantic
level.

c. A predicate is *reflexive* iff two of its arguments are coindexed.

d. A predicate (of P) is *reflexive-marked* iff either P is lexically reflexive or one of
P's arguments is a SELF-anaphor.          (Reinhart and Reuland, 1993, 678)

Conditions A and B should be read as conditionals: equivalent to 'If a syntactic predicate
is reflexive-marked, then the predicate is reflexive' and 'If a semantic predicate is reflex-
ive, then the predicate is reflexive-marked.' These are material implications. Regardless
of the truth of the consequent clause, if antecedent clauses are false, the Conditions are
vacuously satisfied. Condition A is vacuously satisfied if a predicate is not reflexive-
marked. If a predicate is not reflexive, Condition B is vacuously satisfied.

Let us reexamine how Reinhart and Reuland's Conditions explain the contrastive
distribution of *zich* and *zichzelf* in (160)-(164), repeated here as (167)-(171).

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(167) Max wast     {zichzelf / zich}.

       washes {SELF / SE}

  'Max washes himself.'


(168) Max haat   {zichzelf /*zich}.

       hates {SELF /*SE}

  'Max hates himself.'


(169) Max gedraagt {zich /*zichzelf}.

       behaves  {SE /*SELF}

  'Max behaves.'


(170) Max$_i$ legt  het boek achter  zich$_i$.

        puts the book behind SE

  'Max puts the book behind him.'


(171) Max$_i$ voelde [zich$_i$ wegglijden].

       felt     [SE    slide away]

  'Max felt him slide away.'


The predicate in (167) *wast* 'washes' is a doubly specified type verb: it has two properties as non-reflexive and reflexive. When this predicate is taken as a non-reflexive predicate, it requires the reflexivizer anaphor *zichzelf* to be syntactically reflexive-marked. The predicate is reflexive, because this anaphor and its coargument Max are coindexed. Conditions A and B are both satisfied. On the other hand, if this predicate is taken as a reflexive predicate, it takes the SE-anaphor *zich*. The predicate is lexically reflexive-marked. Max

and *zich* are coindexed, so the predicate is reflexive. Here again, Conditions A and B are satisfied. In (168), Max and the anaphors are coindexed, so the predicate is reflexive. Condition B is satisfied. The predicate *haat* 'hates' is not specified as reflexive in the lexicon. If this predicate takes the reflexivizer anaphor *zichzelf*, it is reflexive-marked and Condition A is satisfied. If *zich* is taken, the predicate cannot be reflexive-marked. The sentence is excluded because of Condition A violation. In (169), the predicate *gedraagt* 'behaves' is lexically specified as reflexive. This predicate is lexically reflexive-marked. So, Condition A is satisfied. Also, the predicate takes the non-reflexivizer anaphor *zich*, and this anaphor and the coargument Max are coindexed. The predicate is reflexive. Condition B is also satisfied. Reinhart and Reuland's Conditions regulate (170) and (171) as well. The predicate in (170) is the preposition *achter* 'behind' and the predicate in (171) is the embedded verb *wegglijden* 'slide away.' The predicates in (170) and (171) are not reflexive marked: these predicates are not specified as reflexive in the lexicon nor take the SELF anaphor. Then, Condition A does not apply. Condition B does not apply either, because their arguments are not coindexed and the predicates are not reflexive. (170) and (171) are both vacuously ruled in by the Conditions.

Further they propose that an anaphor that is in a coargument domain of a predicate is a reflexive anaphor but the one outside the domain is a 'logophoric anaphor' and that conditions in (165) for reflexive anaphors vacuously rule in logophoric anaphors.

(172)  a.  Max saw a gun near {himself / him}.        (Reinhart and Reuland, 1993, (7a))

       b.  Lucie saw a picture of {herself / her}.        (Reinhart and Reuland, 1993, (8a))

In (172a), Max and *himself* are not coarguments of the predicate *saw*. *Herself* in (172b)

is also not a coargument of the predicate. Condition A vacuously applies in these cases. The vacuous application of this condition rules in both the anaphors and pronouns.

Reinhart and Reuland (1993) claim that anaphors are partitioned based on their morphological complexity as SELF-anaphors and SE-anaphors and that these two types of anaphors differ in their syntactic function. Morphologically complex SELF-anaphors function as reflexivizers: they can add reflexivity to predicates that lack inherent reflexivity. In contrast, morphologically simplex SE-anaphors do not have such a function. Reinhart and Reuland, however, do not explain why morphologically complex anaphors, not simplex anaphors, have the reflexivizer function. It is not clear how vital the morphological complexity of anaphor to their analysis. They further suggest that predicates are specified with respect to reflexivity in the lexicon: some predicates are lexically reflexive, some are non-reflexive and some are doubly specified as reflexive and non-reflexive. Their binding conditions in (165) says that reflexive marking corresponds to semantic reflexivity as defined in (166c). There are, however, two ways to realize reflexivity marking: the definition of 'reflexive-marked' in (166d) is a disjunction. Then, their proposal makes us predict that the two types of reflexive-marked predicate form a natural class.

## 3.2 Lidz (1996, 2001a,b)

### 3.2.1 Pure reflexive and Near reflexive anaphors

Lidz (1996, 2001a,b) gives an analysis, pointing out two major defects of Reinhart and Reuland's (1993) analysis. Lidz's first argument against Reinhart and Reuland's theory is about the semantics of the two types of reflexive-marked predicates: lexically

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reflexive-marked predicates and syntactically reflexive-marked predicates. Lidz demon-strates the semantic differences of the two kinds of predicates using two diagnostics. Secondly, he argues against Reinhart and Reuland's way of classification of anaphor. Although Reinhart and Reuland claim that anaphors are categorized based on their mor-phological complexity, Lidz argues that anaphors are classified based on their semantics and the morphological complexity does not partition anaphors. In addition to these, there is another major difference between Reinhart and Reuland's analysis and Lidz's analysis. While the former analysis proposes their own Binding Conditions in (165) that substitute Chomsky's (1981, 1986) Binding Principle A, the latter analysis keeps the principle and gives an additional condition that regulates what the Binding Principle A cannot capture.

Lidz utilizes two diagnostics to demonstrate semantic differences between the two types of reflexive-marked predicates. The first diagnostic is (un)availability of 'statue in-terpretation' in the Madame Tussaud context that is first discussed in Jackendoff (1992).[2] Consider the Dutch example in (173). The predicate *scheert* 'shave' used in the example is a doubly specified type predicate as reflexive and non-reflexive in Reinhart and Reuland's term. In (173a), the predicate is used as a reflexive predicate. It is a lexically reflexive-marked predicate. The predicate is inherently specified as reflexive in the lexicon, so it

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[2]In this thesis, I use the term 'statue interpretations,' but 'statues' need not to be a statue. Jackendoff (1992) restricts what an anaphor can refer to 'physical representations' such as statues, pictures, recordings and portraying actors, and excludes tales or legends (they are not physical) or cars (that are not represen-tation). So, if pictures and portraits are referentially dependent on their antecedents but not identical with them, I would call those interpretations 'statue interpretations' as well. Further, Jeff Lidz (p.c.) says that even milk chocolate figures that depict agents or books written by agents can be 'statues of the agents' and that it is possible to say 'He ate himself in the cafe' and 'She can find herself in the book store.'

takes the SE anaphor *zich* 'self' as its object argument. On the other hand, in (173b), the same predicate is used as a non-reflexive predicate. The predicate is reflexivized by taking a SELF anaphor *zichzelf* 'selfself.' This is a syntactically reflexive-marked predicates.

(173)  a.  Ringo scheert zich                                                      [Dutch]

Ringo shaves  self

'Ringo shaves himself (=Ringo / ∗statue).'

   b.  Ringo scheert zichzelf

Ringo shaves  selfself

'Ringo shaves himself (=Ringo / statue).'                         (Lidz, 2001b, (9))

Now, imagine a situation in which the famous Ringo Starr goes to a Madame Tussaud wax museum and he is standing in front of a statue that depicts him. If Ringo dislikes the statue with a beard and shaves the beard, this situation can be felicitously described by (173b) with *zichzelf*, but not (173a) with *zich*. If (the real) Ringo has a beard but the statue does not and he prefers his face without a beard and he decides to shave his face, the situation can be described by either (173a) or (173b). Lidz's point is that Reinhart and Reuland's analysis fails to capture the fact that additional statue interpretation is available only with the syntactically reflexive-marked predicate in (173b).[3]

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[3]Rooryck and Vanden Wyngaerd (1998) also observe that two sentences like the ones in (173) and the two expressions in (i) have different interpretations. Their account for the distribution of the two types of anaphor is different from Lidz's account that I will review shortly. Under Rooryck and Vanden Wyngaerd's analysis, the simplex anaphor *zich* represents a simultaneous time-slice of the antecedent, while the complex *zichzelf* can represent a spatio-temporally different entity of the antecedent.

The second diagnostic is (un)availability of non-sloppy identity interpretation in comparative deletion constructions. Compare (174a) and (174b), from Lidz (2001b, (11)). The predicates in these examples are also of the doubly specified type. Now, we can see that the lexically reflexive-marked predicate example in (174a) has only the sloppy identity reading: the elided structure contains only a local reflexive reading. On the other hand, the syntactically reflexive-marked predicate example in (174b) allows the non-sloppy identity reading: the object of the elided structure is the same one of the matrix clause, as well as the sloppy identity reading.

(174)  a.  Zij  verdedigde zich beter  dan  Peter

       she defended    self  better than Peter

       'She defended herself better than Peter defended himself' (sloppy identity)

      *'She defended herself better than Peter defended her' (non-sloppy identity)

    b.  Zij  verdedigde zichzelf beter  dan  Peter

       she defended    selfself  better than Peter

       'She defended herself better than Peter defended himself' (sloppy)

       'She defended herself better than Peter defended her' (non-sloppy)

In this diagnostic again, only the syntactically reflexive-marked predicate allows the ad-

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(i) Jan verdedigde {zich / zichzelf}.

Jan defended    { self / selfself}

'Jan defended himself.'                              (Rooryck and Vanden Wyngaerd, 1998, (1b))

In the *zich* sentence, the verb *verdedigden* 'defend' refers to a defense in response to an immediate attack. In contrast, the *zichzelf* sentence has additional readings such as 'Jan defended the idea he made previously.' Here, *zichzelf* refers to 'Jan's idea' that is spatio-temporally distant from the antecedent *Jan*.

ditional non-sloppy identity reading. The results of the two diagnostics demonstrate that the two types of reflexive-marked predicate are semantically different and that Reinhart and Reuland's analysis makes a wrong prediction.[4]

The second argument against Reinhart and Reuland (1993)'s theory in Lidz (1996, 2001a,b) is the way of anaphor classification. Based on the results of the diagnostics above, Lidz claims that anaphors should be categorized based on their semantic properties, not on the morphological composition. Lidz calls anaphors that refer to only antecedents themselves (not to statues) in the Madame Tussaud context and restrict their references to their local subjects in comparative deletion constructions, such as *zich* 'self,' 'Pure reflexive anaphors.' Compared to this type of anaphor, anaphors such as *zichzelf* 'selfself' are called 'Near reflexive anaphors.' These anaphors are referentially dependent on their antecedents but not necessarily identical with them. So, they can refer to a statue of their antecedents in the Madame Tussaud context. These anaphors do not restrict

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[4]Rooryck and Vanden Wyngaerd (1998) and Reuland (2001) report that the two forms of anaphor in Dutch show different patterns in a 'Münchhausen' context as well as in the Madame Tussaud context and in comparative deletion constructions. In (i), if *zich* is used, the sentence means 'Münchhausen pulled himself out of the swamp by holding on to a branch or a rope.' In contrast, if *zichzelf* is used, then the sentence means 'Münchhausen got himself out of the swamp by pulling at his hair.' In the latter case, Münchhausen is at once the puller and the pullee. Such a reading results from a 'duplication' or 'Doppelgänger' effect.

(i)  Münchhausen trok    {zich / zichzelf} uit het moeras.                    [Dutch]

Münchhausen pulled {self / selfself}  out of the swamp

'Münchhausen pulled himself out of the swamp'

(Rooryck and Vanden Wyngaerd, 1998, via Voskuil and Wehrmann, 1990a,b)

their references to their local subjects in comparative deletion constructions.[5]

Lidz claims that the two types of anaphor induce different types of reflexivity as schematized in (175). Pure reflexive anaphors induce Pure reflexivity as given in (175a). This type of anaphor is thought as a variable. Near reflexive anaphors, in contrast, induce Near reflexivity given in (175b). Lidz assumes that Near reflexive anaphors have the Near reflexive function; $f(x)$ in (175b), that takes its antecedent as its input and returns a referential extension of the antecedent.[6]

(175)  a.  $\lambda$x [P (x,x)]        (semantic / pure reflexive)

b.  $\lambda$x [P (x,f(x))]     (near reflexive)                              (Lidz, 2001b, (13))

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[5]One anaphor cannot yield Pure reflexivity and Near reflexivity at the same time when the anaphor is in the plural form: the sentence (i) does not have a meaning like 'Ringo dressed himself (*himself* = Ringo) and John dressed himself (*himself* = statue of John).' Rather, the anaphor *themselves* refers to the antecedent itself (real Ringo and real John) or the statues (the statue of Ringo and the statue of John).

(i)  Ringo and John dressed themselves in the museum.

Also, to describe the situation 'Ringo dressed (the real) himself and the statue that depicts him,' (ii) is not available. To begin with, the sentence is not grammatical: the number feature of the anaphor and its antecedent mismatch. In contrast, (iii) is available, if the second instance of *himself* has a contrastive stress. I thank Sam Epstein and Daniel Seely for pointing this out to me.

(ii)*Ringo dressed themselves. (*themselves* = Ringo and statue of Ringo)

(iii)  Ringo dressed himself and HIMSELF. (*himself* = Ringo & *HIMSELF* = statue of Ringo)

[6]Reuland (2001) also proposes a similar idea and assumes that '*zichzelf* expresses a relation between an $x$ and an $f(x)$ that bears a systematic resemblance to $x$, but can be distinguished from it' (483).

Pure reflexivity is a subcase of Near reflexivity: when the Near reflexive function returns the input itself, a Pure reflexivity reading is induced.

In addition, Lidz proposes Condition R in (176) to regulate Pure reflexivity. The left side of the condition shows the semantics of reflexivity. The right side indicates the theta-grid of lexically reflexive predicate: the two thematic roles of a lexically reflexive predicate must be coindexed. Condition R says that if a predicate is semantically reflexive, it must be lexically reflexive. If a predicate is lexically reflexive, it must be semantically reflexive.

(176) *Condition R*

$$\lambda x[P\,(x,x)] \quad \leftrightarrow \quad (\theta\,1 = \theta\,2)$$

semantics $\qquad\qquad$ $\theta$-grid

(Lidz, 2001b, (16))

Now we know Lidz's theory, let us reexamine the results of the two diagnostics. In the Madame Tussaud context in (173a), *zich* refers to the antecedent Ringo himself. This anaphor is a Pure reflexive anaphor, and Condition R is operative. The anaphor always refers to the antecedent itself. In the comparative deletion construction in (174b), the reading that the local subject Peter binds *zich* is obligatorily induced. It is because *zich* is a variable and the semantic structure of the sentence is always like (177).

(177) [defend (she,she)] better than [defend (Peter,Peter)] $\qquad$ (Lidz, 2001b, (26b))

The Near reflexive anaphor *zichzelf*, on the other hand, can refer to a statue that is representationally related to the antecedent Ringo in the Madame Tussaud context in (173b).

The Near reflexive function takes the antecedent Ringo as its input and returns a referential extension of it, namely 'the statue of Ringo.' When the Near reflexive function returns the input itself, the actual Ringo reading is also available in (173b). In the comparative deletion construction in (174b), both the sloppy and non-sloppy identity readings are allowed. Lidz explains why two readings are available in the sentence as follows. There are two possible semantic structures for the sentence in this case, because *zichzelf* is a Near reflexive anaphor and it is not a variable and it can have its own index. If the sentence is read with the semantic structure (178a), the sloppy identity reading is allowed. If the semantic structure is (178b), then the non-sloppy identity reading is yielded.[7]

(178)  a. $\lambda$x [defend(x,f(x))](she$_i$) better than $\lambda$x[defend(x,f(x))](Peter)

     b. $\lambda$x[defend(x,f$_i$(x))](she$_i$) better than $\lambda$x[defend(x,f$_i$(x))](Peter)

(Lidz, 2001b, (29))

## 3.2.2   Reflexivity marking

Lidz's analysis accounts for the different patterns of the two types of Dutch anaphor in the two diagnostics. Does his analysis apply to other languages? To answer this question, we need to know how lexical and semantic reflexivity is marked on verbs in languages. In Lidz's (2001a,b) discussion, there is only one way to mark semantic reflexivity: a Pure reflexive anaphor marks semantic reflexivity in languages. By contrast, there

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[7]Jeff Lidz (p.c.) abandons this account. Instead, he suggests applying Kennedy and Lidz (2001) to accounting for the availability of the two readings. I will introduce their analysis and apply it to Japanese in Section 4.1.

seem to be three ways that lexical reflexivity is marked on verbs.

A first way of lexical reflexivity marking is that verbs are inherently specified if they have reflexivity or not in the lexicon. These verbs do not take morphological reflexive markers. This way is observed in Dutch. Recall (173) that is repeated here as (179).

(179)  a.  Ringo scheert zich                                                 (=(173))

       Ringo shaves  self

      'Ringo shaves himself.' (*zich* = Ringo,*statue)

   b.  Ringo scheert zichzelf

      Ringo shaves  selfself

      'Ringo shaves himself.' (*zichzelf* = Ringo, statue)

The predicate *scheert* 'shaves' in (179a) is specified as reflexive in the lexicon, and lexical reflexivity is marked. The verb occurs with the Pure reflexive anaphor *zich*. Semantic reflexivity is also marked. In this example, Condition R is satisfied. Only the Pure reflexive reading is induced and a Near reflexive reading is not yielded. By contrast, the predicate in (179b) is used as non-reflexive and it does not mark lexical reflexivity. This verb does not occur with the Pure reflexive anaphor, so semantic reflexivity is not marked. Condition R does not operate in this case. The Near reflexive interpretation is available.

A second way is to attach a verbal reflexive marker morphologically on verbs (Lidz, 1995). Kannada takes this way: as in (180b), the verb has lexical reflexivity when the verbal reflexive marker *-koND* (past tense form: *-koLL* in present tense) is attached on it.

(180) a.*Hari tann-annu hoDe-d-a                                              [Kannada]

     Hari self-Acc   hit-Past-3SM

     'Hari hit himself.' (*tann* = Hari)

  b. Hari tann-annu hoDe-du-**koND**-a

     Hari self-Acc   hit-PR-Ref.Past-3SM

     'Hari hit himself.' (*tann* = Hari, *statue)

  c. Hari tann-annu-taane hoDe-d-a

     Hari self-Acc-self    hit-Past-3SM

     'Hari hit himself.' (*tannu-tanne* = Hari, statue)      (Lidz, 2001a, (12))

The predicate in (180a) is semantically reflexive since it takes the Pure reflexive anaphor *tann* 'self,' but it lacks lexical reflexivity on the verb. The sentence is excluded due to the violation of Condition R. On the other hand, the condition is satisfied in (180b) because the predicate is now marked lexical reflexivity by taking the verbal reflexive marker *-koND* on it. In (180c), the condition vacuously applies: the predicate is neither semantically nor lexically reflexive marked, because the verb takes a Near reflexive anaphor and it does not have the verbal reflexive marker *-koND*.

A third way is observed in Russian: the Pure reflexive anaphor marks lexical reflexivity as well as semantic reflexivity. In (181a), only the Pure reflexive reading is induced. Condition R is operative. In (181b), though the verb used in this example is the same as the one used in (181a), the statue reading is also available. In this case, Condition R is not operative. This observation makes us predict that the verb in (181) lacks any reflexivity and that the affixal anaphor *-sja* marks both semantic and lexical reflexivity.

Consequently, this anaphor is regarded as a Pure reflexive anaphor and *sebja* in (181b) is regarded as a Near reflexive anaphor.

(181)  a.  Yeltsin zastrelil-sja.                              [Russian]

     Yeltsin shot-self

     'Yeltsin shot himself.' (-*sja* = Yeltsin, *statue)

   b.  Yeltsin zastrelil sebja.

     Yeltsin shot    self

     'Yeltsin shot himself.' (*sebja* = Yeltsin, statue)     (Lidz, 2001a, (26))

There are also languages that lack verbs with lexical reflexivity: Malayalam is such a language. Verbs in this language lack lexical reflexivity. Condition R excludes coargument binding of one type of anaphor *tan* 'self.' For example, in (182a), *tan* cannot be bound by its coargument and any readings, including a Near reflexive reading, are not allowed. On the other hand, another type of anaphor *tan-tanne* 'self-self' can be bound by its coargument as in (182b). In this case, Condition R vacuously applies. The Near reflexive reading is available.

(182)  a. *Raaman tan-ne    kshauram ceytu                              [Malayalam]

     Raaman self-Acc shaving   did

     'Raaman shaved.'

   b.  Raaman tan-ne-tanne  kshauram ceytu

     Raaman self-Acc-self shaving   did

     'Raaman shaved himself.' (*tan-tanne* = Raaman, statue)   (Lidz, 2001a, (32))

In Dutch, Kannada and Malayalam, the morphologically complex anaphors *zichzelf*, *tannu-tanne* and *tan-tanne*, respectively, function as Near reflexive anaphors. On the other hand, in Russian, *sebja* that does not seem to be morphologically complex functions as a Near reflexive anaphor. The above data demonstrates that the morphological complexity of anaphor does not distinguish the function or property of anaphors, contrary to Reinhart and Reuland's (1993) classification. Lidz's (2001a,b) analysis, in contrast, says nothing about the morphological form of anaphors. Under his analysis, individual anaphors are lexically specified as introducing the Near reflexive function or not. Further, Condition R makes an interesting prediction given in (183).

(183)  If an anaphor can be bound by a coargument (in the absence of lexical reflexivity), then that anaphor is a Near-reflexive.                    (Lidz, 2001a, 237)

As we have observed above, Dutch *zichzelf*, Kannada *tannu-taane* and Russian *sebja* all allow coargument binding without lexical reflexivity and allow statue interpretations in the Madame Tussaud context. These anaphors are all Near-reflexive anaphors. Also, note that some of these anaphors are morphologically complex, while some are not. Anaphors in languages cannot be classified just based on the morphological complexity, but they have to be categorized based on their semantic differences. These observations in Lidz's arguments show that morphological complexity of anaphor does not distinguish types of anaphor and that Reinhart and Reuland (1993) is not tenable if the morphological complexity of anaphor is really vital to their analysis.

Before moving to another analysis, I would like to briefly review Burzio (1994). He also notices that different types of anaphor yield different reflexivity, as does Lidz (1996,

2001a,b). Burzio, however, classifies anaphors based on their morphological complexity. His claim is that anaphors in Italian are categorized into types based on a certain morphological strength scale as illustrated in (184).

(184) Morphological Strength Scale:

    a.    1.   ∅   2.   clitic   3.   non-clitic   4.   Argument-intensifier

    b.       ∅       si         se            se-stesso

                         self       self       self-same      (Burzio, 1994, (4))

Under his analysis, morphologically simplex anaphors are called as 'weak anaphors' (like zero morpheme or *si-* in (184)) and complex ones are called as 'strong anaphors' (like *se stesso*). He proposes 'Weak Anaphor Principle' given in (185) that says that inherent coreference between an anaphor and its antecedent requires weak(er) anaphors and weak anaphors induce inherent coreference. The principle requires a weak anaphor in a context where coreference is favored. In contrast, in a context where coreference is disfavored, a strong anaphor is used.

(185)    Weak Anaphor Principle

     Inherent coreference      ↔    weak anaphora

     (semantics)                  (morphology)         (Burzio, 1994, (3))

Let us observe (186) to see how his analysis works.

(186) a. Gianni { ∅ / % le }    perde i   capelli.                 [Italian]

       Gianni { ∅ / to-her }   loses   the hair

       'Gianni loses {his / % her} hair.'

                             (Based on Burzio, 1994, (18a)(19b) with modification)

b. Gianni { si       / le }       taglia i     capelli.

   Gianni { to-self / to-her } cut     the hair

   'Gianni cut {his / her} hair.'                    (Burzio, 1994, (17a)(19a))

In (186a), the principle requires the weak anaphor ∅ because 'losing one's hair' is a sit-

uation where a coreference between the anaphor (the possessee) and its reference (the

possessor) is favored. The sentence is odd if the pronoun *le* 'her' that is not coreferen-

tial with the subject is used. In contrast, in (186b), 'cutting one's hair' is not a situation

where a coreference is necessarily favored. The strong anaphor *si*, not a weak anaphor,

is selected. The non-coreferential pronoun *le* is also available. In this analysis, however,

when the not-too-weak and not-too-strong anaphors such as *si* and *se* are used is not clear.

   Lidz (2001a,b) claims that there are two types of reflexive anaphor: Pure reflexive

anaphors and Near reflexive anaphors and that they induce different reflexivity. Whether

an anaphor is the Pure reflexive type or the Near reflexive type is lexically specified and

is not determined by their morphological complexity of anaphor. Then, his analysis that

does not say anything about the morphological complexity is simpler and seems better

than Reinhart and Reuland (1993) and Burzio (1994). I will come back to the issue: how

the morphologically complexity or composition of anaphors is related to the semantics of

anaphor, in Chapter 4.

## 3.3 Liu (2003)

### 3.3.1 Focus operator anaphor

Liu (2003) claims that Pure reflexivity and Near reflexivity are not the only options that are yielded in the Madame Tussaud context. By giving the data in Chinese, he claims that there is another type of reflexivity. Consider (187): a statue interpretation is allowed in (187a) and (187b), but not in (187c). *Ziji* 'self' in (187a) and *ta-ziji* 'him-self' in (187b) function as Near reflexive anaphors, while *ziji-benshen* 'self-self' in (187c) does not. Is *ziji-benshen* a Pure reflexive anaphor?

(187) a. Jiang Jie-Shi henhen-de da-le    ziji yi-xia.                 [Chinese]

      Jiang Jie-Shi furiously   hit-Asp self one-Cl

      'Jiang Jie-Shi hit himself furiously.' (*ziji* = JJS, statue)

  b. Jiang Jie-Shi henhen-de da-le    ta-ziji    yi-xia.

     Jiang Jie-Shi furiously   hit-Asp him-self one-Cl

     'Jiang Jie-Shi hit himself furiously.' (*ta-ziji* = JJS, statue)

  c. Jiang Jie-Shi henhen-de da-le    ziji-benshen yi-xia.

     Jiang Jie-Shi furiously   hit-Asp self-self      one-Cl

     'Jiang Jie-Shi hit himself furiously.' (*ziji-benshen* = JJS, ∗statue)

                                       (Liu, 2003, (11))

Liu claims that what looks like Pure reflexivity in (187c) is not Pure reflexivity, but 'Pure identity' between the anaphor *ziji-benshen* and its antecedent. This anaphor is not a Pure reflexive anaphor but a 'focus operator anaphor' under his claim. While Pure reflexivity

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in Lidz's (2001a,b) sense is as a consequence of Condition R, Pure identity arises as a consequence of the semantic composition of the anaphor *ziji-benshen*: (a) the Near reflexive function of *ziji* 'self,' (b) a focus function of *-benshen* '-self' and (c) the operator status of the anaphor *ziji-benshen*. (188) shows that the suffix *-benshen* functions as a focus marker that involves a notion of scalarity with respect to the expectations of the speaker (see Rooryck and Vanden Wyngaerd (1998): cf. Edmondson and Planck (1978)).

(188) Wei-le jiaqiang liang-guo jian    de bangyi,    zongtong **benshen** yao dao

    For-Asp reinforce two-state between DE friendship president self    want arrive
    jichang lai    yingjie    meiguo    guowuqing.

    airport come welcome United States Secretary of State

    'In order to reinforce the diplomatic relationship between the United States and us,

    the president *himself* will come to the airport to welcome the U.S. Secretary of

    State.'                                                                                        (Liu, 2003, (27))

The speaker of the sentence (188) has not expected that the subject NP *zongtong* 'president' came to the airport, but he / she actually did. This was beyond the speaker's expectation. Thus, the focus marker *-benshen* is attached to the subject NP. Without the focus marker, the sentence sounds pragmatically odd.

The focus function of the *-benshen* suffix reminds us of adnominal intensifiers, such as *himself* in (189) in English, that we have seen in Section 2.2.1. Although Liu uses the term 'focus marker,' not 'adnominal intensifier,' for the suffix, he agrees that this suffix shows the similar characteristics with the English adnominal intensifier *himself* (Liu, 2003, Footnote 23). Therefore, I gloss the Chinese suffix *-benshen* as '-Self' hereafter.

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(189) a. John *himself* did it.

    b. I gave it to Bill *himself*.

## 3.3.2 Pure Identity and Pure Reflexivity

Under Liu's (2003) analysis, how Pure identity reading is induced in (187c), repeated here as (190a), is explained as follows. The anaphor *ziji-benshen* contains *ziji*, the Near reflexive anaphor, so it has a set of what the Near reflexive function of *ziji* denotes: referential extensions of the antecedent or the elements that could be construed as the antecedent, including the antecedent itself. Then, the complex anaphor as a whole has the 'semantic range' (cf. Katada, 1991), because of the Near reflexive function of *ziji*. Based on that the possession of semantic range is a property shared by other operators such as quantifiers, wh-words, and null operators, he assumes that *ziji-benshen* is an operator that undergoes an LF movement, namely, adjunction to VP (cf. Huang and Tang, 1991). Under this assumption, (190a) has the LF representation like (190b). The anaphor is adjoined to VP and then subject to predication or strong binding by an appropriate local subject (cf. Chomsky, 1986). It constitutes an operator-variable relation with its trace (cf. Heim and Kratzer, 1998)

(190) a. Jiang Jie-Shi henhen-de da-le    ziji-benshen yi-xia.

      Jiang Jie-Shi furiously   hit-Asp self-Self     one-Cl

      'Jiang Jie-Shi hit himself furiously.'

    b. [ [Jiang Jie-Shi] [$_{VP}$ ziji-benshen$_i$ [$_{VP}$ henhen-de da-le t$_i$ yi-xia]] ]

(Based on Liu (2003, 33))

Semantically, the anaphor has a set of what the Near reflexive function of *ziji* denotes. Among the set, the focus marker *-benshen* picks out an element that is highest on the scale, and as a consequence, the antecedent itself is selected as the reference of the anaphor. In (190b), the variable, namely the trace, co-varies with the picked-out element, the actual Jiang Jie-Shi. Near reflexive interpretations are, thus, excluded.[8]

Liu notes that *ziji-benshen* shows a different behavior from the other types of anaphor in a comparative deletion construction as well. Compare (191a) and (191b) from Liu (2003, (32)).

(191) a. Zhangsan xianzai bi      Lisi guoqu geng guanxin    ziji-de  liyi

 Zhangsan now     compare Lisi past    more care-about self-DE benefit

 '$Z_i$ cares about his$_i$ benefit more than $L_j$ cared about his$_j$ benefit.' (sloppy)

 '$Z_i$ cares about his$_i$ benefit more than $L_j$ cared about his$_i$ benefit.' (non-sloppy)

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[8]As pointed out by Tonia Bleam to me, how *ziji-benshen* yields a Pure identity interpretation could be easily understood if we consider reduplication in English. For example, 'salad' refers to a cold dish of green vegetables (sometimes with meat, tuna or fruit). Once the word is reduplicated as 'salad salad,' the word specifically refers to a cold dish only of green vegetables. That is, 'salad' has a set of its reference: chicken salad, tuna salad, potato salad . . . and green salad. (In the *ziji-benshen* case, *ziji* has a set of what it refers to: a statue of the antecedent, a picture of the antecedent . . . and the antecedent itself) Through the process of reduplication, the most salad-like item from the set, namely green salad, is selected. (In the *ziji-benshen* case, the focus function selects the most antecedent-like item, namely the antecedent itself, from the set.) See Ghomeshi et al. (2004) for the discussion on the relation between reduplication and contrast.

b. Zhangsan xianzai bi      Lisi guoqu geng guanxin    ziji-benshen -de  liyi

Zhangsan now     compare Lisi past    more care-about self-Self     -DE benefit

'$Z_i$ cares about his$_i$ benefit more than $L_j$ cared about his$_j$ benefit.' (sloppy)

*'$Z_i$ cares about his$_i$ benefit more than $L_j$ cared about his$_i$ benefit.' (non-sloppy)

Both the sloppy and non-sloppy identity readings are allowed in (191a) in which *ziji* is used. On the other hand, only the sloppy identity reading is induced in (191b) that contains *ziji-benshen*. Liu's account for the unavailability of non-sloppy identity reading in (191b) is again attributed to the operator anaphor status of the anaphor. The elided structure of (191b) has the LF representation like (192) in which the operator anaphor *ziji-benshen* undergoes an LF movement.

(192)  [ [ Lisi$_i$ ] [$_{VP}$ *ziji-benshen*$_i$ [$_{VP}$ . . . $t_i$ . . . ] ] ]          (Based on Liu, 2003, (33b))

*Ziji-benshen* adjoins to VP, and the trace of it can be bound only by the local subject Lisi because the anaphor is subject to predication or strong binding by an appropriate local subject. The sloppy identity reading is obligatorily induced.

Further, he claims that *ziji-benshen* is not a Pure reflexive anaphor from the viewpoint of the semantic contents of anaphor. Pure reflexive anaphors (e.g. *zich* 'self' in Dutch) are variables without any content, while the focus operator anaphor *ziji-benshen* has richer semantic / pragmatic contents as a focus marker. Then, Pure identity induced by focus does not necessarily imply Pure reflexivity induced by a Pure reflexive anaphor. Pure reflexivity is, on the other hand, a subcase of Pure identity.

Liu (2003) proposes that there are anaphors that have a special function like focus in languages. He regards these anaphors as operator anaphors that undergo LF movement.

His claim is that there are two ways to induce Pure identity readings in languages: (a) Pure reflexivity as a consequence of Condition R and (b) Pure identity as a consequence of the properties of anaphor, and that a language disjunctively selects one of the two ways. For instance, Dutch selects the first way: it has the Pure reflexive anaphor *zich* 'self' as well as the Near reflexive anaphor *zichzelf* 'selfself.' On the other hand, Chinese selects the second way: it has the focus operator anaphor *ziji-benshen* 'self-Self' as well as Near reflexive anaphors *ziji* 'self' and *ta-ziji* 'him-self.'

## 3.4 Difference among reflexives in Japanese

In this section, I test if each analysis reviewed in the preceding subsections: Reinhart and Reuland (1993), Lidz (1996, 2001a,b) and Liu (2003), applies to Japanese and see if these analyses capture differences among the multiple forms of anaphors in that language. Recall that we have separated genuine reflexive elements in Japanese from apparent reflexive elements in Chapter 2. In this section, what I refer to as reflexive anaphors are (a) the reflexive type of *zibun* 'self,' (b) anaphor *zibun-zisin*, (c) *zibun-zisin* as the intensified form of reflexive *zibun* (*zibun-zísin*) and (d) the reflexive type of *zi-/ziko-*affixes 'self-.' I consider how these four types of anaphor differ and how they are classified.

### 3.4.1 Reflexivizer anaphor in Japanese

In this subsection, I consider if the analysis in Reinhart and Reuland (1993) applies to Japanese. Many studies have tried to apply their approach to Japanese (Aikawa, 1993, Hara, 2002, Kis, ????, Shimada, 2006, Nishigauchi and Kishida, 2008). Although most of

the studies do not regard *zibun* 'self' as a reflexivizer SELF-anaphor in Japanese, Shimada (2006, 64) claims that *zibun* is the reflexivizer. Her claim is that *zibun* converts a transitive predicate into a reflexive verb: the predicate *semeru* 'blame' in (193a) can occur with a non-reflexive object Mary but also with a reflexive anaphor *zibun* in (193b). The verb is reflexivized by *zibun* in (193b).

(193) a. John-wa  Mary-o    seme-ta.

      John-Top Mary-Acc blame-Past

      'John blamed Mary.'

  b. John-wa  zibun-o  seme-ta.

      John-Top self-Acc blame-Past

      'John blamed himself.'

I, however, do not think that her claim is compatible with Reinhart and Reuland's (1993) analysis. The definition of reflexivizer anaphor under their theory says that reflexivizers should be morphologically complex. *Zibun* is, however, morphologically simplex: for example, compare this item to another form of anaphor *zibun-zisin* 'self-self.' So, if we strictly follow Reinhart and Reuland's definition, *zibun* is not categorized as a reflexivizer anaphor but rather *zibun-zisin* is categorized as the reflexivizer in Japanese (cf. Aikawa, 1993, Kishida, 2005).[9]

Let us assume that *zibun-zisin* is the reflexivizer anaphor and *zibun* is the non-reflexivizer anaphor, against Shimada's (2006) claim. Can the application of Reinhart

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[9]This argument holds only if the morphological complexity is vital to Reinhart and Reuland's analysis in classifying anaphors into types. Also, it is not impossible to analyze *zibun* as a morphologically complex anaphor that consists of *zibun* and phonologically null affix.

and Reuland's analysis explain the question that this thesis aims to answer: what causes the contrastive acceptability of local *zibun* binding in (6), repeated here as (194)? In (194), I use the notations SE / SELF and [+/–ref] following Reinhart and Reuland (1993).

(194)  a.  John-wa   zibun-o seme-ta.                                                    (=(6))

        John-Top SE-Acc blame([+ref])-Past

        'John blamed himself.'

    b. * John-wa   zibun-o ket-ta.

        John-Top SE-Acc kick([–ref])-Past

        'John kicked himself.'

Assume that the predicate in the acceptable sentence (194a) is inherently marked as reflexive in the lexicon. Then, it is lexically reflexive-marked and it requires the non-reflexivizer anaphor *zibun*. The antecedent John and the anaphor are coindexed. Reinhart and Reuland's Conditions A and B (recall (165)) are both satisfied. On the other hand, (194b) is not perfectly acceptable. This would be explained by saying that the predicate is not reflexive-marked: the predicate is inherently non-reflexive and it takes the non-reflexivizer anaphor. Reinhart and Reuland's Condition A is violated.

Then, it is predicted that the predicate in (194b) can be reflexivized if it takes the reflexivizer anaphor *zibun-zisin*. See (195a) and (195b): the same predicates used in (194a) and (194b) occur with the reflexivizer anaphor *zibun-zisin*.

(195)  a.  John-wa   zibun-zisin-o seme-ta.

        John-Top SELF-Acc    blame([+ref])-Past

        'John blamed himself.'

b. ?? John-wa   zibun-zisin-o ket-ta.

   John-Top SELF-Acc     kick([–ref])-Past

   'John kicked himself.'

Contrary to our prediction, (195b) is still not acceptable. In (195b), if *zibun-zísin*, the intensified form of *zibun*, is used, the sentence sounds acceptable. However, the sentence has a contrastive reading such as 'John kicked himself, not someone else,' or 'John accidentally kicked himself, though he was supposed to kick the ball.' Reflexivizer anaphors in Reinhart and Reuland's sense do not have such contrastive meanings. So, *zibun-zísin* is not a reflexivizer anaphor. Therefore, *zibun-zisin* does not function as a reflexivizer in Reinhart and Reuland's sense.

Now, let us consider how *zi-/ziko*-verbs are analyzed under Reinhart and Reuland's (1993) approach. As a diagnostic of intrinsic reflexivity, the interpretation of a nominalized verb is available (Reinhart and Reuland, 1991). Compare the two Dutch examples in (196): (196a) with the verb *wassen* 'wash' and (196b) with the verb *haten* 'hate.'

(196)  a. Wassen  is gezond                                    [Dutch]

       washing is healthy

       'Washing {oneself / *someone else} is healthy.'

   b. Haten  is neit gezond

      hating is not  healthy

      'Hating {*oneself / someone else} is unhealthy.'

                                              (Tsujimura and Aikawa, 1996, 273)

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The nominalized form of the verb in (196a) can induce the reflexive interpretation, while the one in (196b) is available only with the non-reflexive interpretation. This contrast shows that the former verb is an inherently reflexive verb, while the latter one is not. Consider (197) with the *zi*-verb *zi-satu-suru* 'kill oneself.' When the verb is nominalized, it induces only the reflexive reading. So, *zi*-verbs (and *ziko*-verbs) are diagnosed as inherently reflexive verbs.

(197)  Zi-satu-suru        no-wa   yoku-nai

     self-killing-do.Pres ing-Top good-Neg

     'Killing oneself is not good.'

However, these verbs are different from what Reinhart and Reuland call inherently reflexive verbs. For, what they call inherently reflexive verbs take a non-reflexivizer (SE) anaphor as their arguments (e.g. see (162)), while Japanese *zi-/ziko*-verbs do not occur with any reflexive anaphors as their arguments as in (198).

(198)  a. John-wa  (*{ musuko / zibun / zibun-zisin}-o) zi-satu-si-ta.

     John-Top { his son / self / self-self }-Acc        self-killing-do-Past

     *'John killed { his son / himself / himself }.'

    b. John-wa  (*{ sakuhin / zibun / zibun-zisin }-o) ziko-hihan-si-ta.

     John-Top { his work / self / self-self }-Acc        self-criticism-do-Past

     *'John criticized { his work / himself / himself }.'

These observations on *zibun*, *zibun-zisin*, *zibun-zísin* and the *zi-/ziko*-affixes suggest that Reinhart and Reuland's (1993) approach is not applicable as it stands to Japanese.

First, if the morphological complexity of anaphor is vital to their analysis in distinguishing types of anaphor: morphologically complex anaphors reflexivize their occurring non-reflexive predicates while morphologically simplex ones do not, the data in (194b) and (195b) in Japanese is not compatible with that way of classification. Even if the morphological complexity is not vital to their anaphor classification, the observation tells us that Japanese anaphors and pronouns cannot be classified based on the [SELF] and [R] properties, because both *zibun* and *zibun-zisin* cannot reflexivize a predicate and so they are [-SELF]. The two types cannot be distinguished by the property. Second, the predicate system in this language is different from the ones in languages that Reinhart and Reuland observe: inherently reflexive predicates morphologically incorporate anaphors and do not take anaphors as surface objects, as (198) indicates.

I agree with Reinhart and Reuland (1993) in that they point out the important relation between the type of anaphor and the one of predicate in considering the anaphor binding. I, however, do not adopt their analysis in this thesis because of the above mentioned reasons.

### 3.4.2 Pure reflexive and Near reflexive anaphors in Japanese

In this subsection, I consider if the analysis in Lidz (1996, 2001a,b) applies to Japanese. I apply the two diagnostics that distinguish Pure reflexive anaphors from Near reflexive ones to the four types of reflexive anaphors in Japanese: *zibun*, *zibun-zisin*, *zibun-zísin*, and *ziko*-affix.

In (199), the (un)availability of statue reading in the Madame Tussaud context is tested.

(199) a. John-wa  zibun-o  hihan-si-ta.

   John-Top self-Acc criticism-do-Past

   'John criticized himself.' (*zibun* = John, statue)

   b. John-wa  zibun-zisin-o hihan-si-ta.

   John-Top self-self-Acc criticism-do-Past

   'John criticized himself.' (*zibun-zisin* = John, statue)

   c. John-wa  zibun-zísin-o hihan-si-ta.

   John-Top self-Self-Acc criticism-do-Past

   'John criticized himself.' (*zibun-zísin* = John, *statue)

   d. John-wa  ziko-hihan-si-ta.

   John-Top self-criticism-do-Past

   'John criticized himself.' (*ziko-* = John, *statue)

*Zibun* in (199a) and *zibun-zisin* in (199b) allow both the Pure reflexive and Near reflexive readings.[10]  In contrast, *zibun-zísin* in (199c) and *ziko-* in (199d) allow only the Pure

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[10]*Zibun* and *zibun-zisin* allow statue interpretations even when they occur in other configuration such as coordinate structures, possessive positions and postpositional phrases as in (i)-(iii), respectively. In all the sentences, *zibun* can refer to a statue of its antecedent John. Recall Footnote 5 of this chapter: anaphors in a plural form does not allow a mixed interpretation, like 'actual X and statue of Y' reading. In the coordinate structure example in (i) as well, such a reading is excluded.

reflexive readings.[11]

In (200), the (un)availability of non-sloppy identity reading in comparative deletion

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(i) John-wa [Ringo to zibun]-o hihan-si-ta.

John-Top Ringo and self-Acc criticism-do-Past

'John criticized Ringo and himself.' / 'John criticized the statues that depict Ringo and him.'

(ii) John-wa [zibun-no hana]-o hihan-si-ta.

John-Top self-Gen nose-Acc criticism-do-Past

'John touched his nose.' / 'John touched the nose of the statue that depicts him.'

(iii) John-wa [zibun-no sita.ni] hon-o oi-ta.

John-Top self-Gen under book-Acc put-Past

'John put a book under him.' / 'John put a book under the statue that depicts him.'

[11]Jackendoff (1992) reports that, in English, personal pronouns can refer to a statue as in (i). To refer to a statue, the personal pronoun *he*, not the impersonal pronoun *it*, is used.

(i) Hey, that's Ringo standing over there (pointing to statue of Ringo)!

Isn't he/*it beautifully painted? (Jackendoff, 1992, (16b))

In contrast, in Japanese, as (ii) indicates, the personal pronoun *kare* 'him' cannot refer to a statue (though we are not sure if this element is really a personal pronoun that corresponds to English *him*: see the discussion in Section 2.1 on page 17). The impersonal pronoun *sore* 'it' is marginally allowed under a statue interpretation. The sentence most naturally sounds, if the second sentence has a phonologically null subject and the null subject refers to the statue in the first sentence. It is interesting that personal pronouns can refer to a statue in English but not in Japanese.

(ii) Asoko-ni tatteiru no-wa Ringo da. {*Kare-wa /?sore-wa / $\phi$ } kirei ni nur-are-teiru yone

there stand that-Top Ringo is { he-Top / it-Top / } beautifully paint-Pass-being right?

'That's Ringo standing over there. Isn't he/*it beautifully painted?'

construction is tested.[12]

(200)  a.  Mary-ga    John yorimo hagesiku zibun-o  hihan-si-ta.

    Mary-Nom John than     severely  self-Acc criticism-do-Past

    'Mary criticized herself more severely than John criticized himself.' (sloppy)

    'Mary criticized herself more severely than John criticized her.' (non-sloppy)

   b.  Mary-ga    John yorimo hagesiku zibun-zisin-o hihan-si-ta.

    Mary-Nom John than     severely  self-self-Acc criticism-do-Past

    'Mary criticized herself more severely than John criticized himself.' (sloppy)

    'Mary criticized herself more severely than John criticized her.' (non-sloppy)

   c.  Mary-ga    John yorimo hagesiku zibun-zísin-o hihan-si-ta.

    Mary-Nom John than     severely  self-Self-Acc criticism-do-Past

    'Mary criticized herself more severely than John criticized himself.' (sloppy)

    *'Mary criticized herself more severely than John criticized her.' (non-sloppy)

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[12]The examples in (200) are of the comparative stripping examples. In Japanese, VP-deletion comparatives, such as (i), are not unavailable, but sound less natural. Therefore, I use comparative stripping examples. Comparative VP-deletion construction sentences are more likely to be interpreted under sloppy identity readings.

(i) Mary-wa  John-ga    si-ta    yorimo hagesiku zibun-o  hihan-si-ta.

   Mary-Top John-Nom do-Past than     severely  self-Acc criticism-do-Past

   'Mary criticized herself more severely than John criticized himself.' (sloppy)

  ??'Mary criticized herself more severely than John criticized her.' (non-sloppy)

d. Mary-ga    John yorimo hagesiku ziko-hihan-si-ta.

   Mary-Nom John than    severely  self-criticism-do-Past

   'Mary criticized herself more severely than John criticized himself.' (sloppy)

   *'Mary criticized herself more severely than John criticized her.' (non-sloppy)

*Zibun* and *zibun-zisin* allow both the sloppy or non-sloppy identity readings, while *zibun-zísin* and *ziko-* induce only the sloppy identity readings.

The results of the two diagnostics suggest that the Japanese reflexive anaphors are classified as summarized in (201).

(201)  a. *Zibun* is a Near reflexive anaphor.

       b. *Zibun-zisin* (anaphor) is a Near reflexive anaphor.

       c. *Zibun-zísin* (the intensified form of reflexive *zibun*) is a Pure reflexive anaphor.

       d. *Zi-/ziko*-affixes are Pure reflexive anaphors.

The classification here, however, seems wrong if we consider the prediction that Condition R makes given in (183), repeated here as (202).

(202)  If an anaphor can be bound by a coargument (in the absence of lexical reflexivity), then that anaphor is a Near-reflexive.                          (Lidz, 2001a, 237)

According to (202), *zibun*, *zibun-zisin* and *zibun-zísin* are categorized as Near reflexive anaphors because all the three items can be bound by the coarguments in the lack of lexical reflexivity. The verb *hihan-suru* 'criticism do, criticize' in (203) lacks lexical reflexivity: the verb allows a non-reflexive usage as in (203a). Occurring with the same

verb, the three anaphors allow the Near reflexive interpretations in (199a)-(199c), that are repeated here as (203b). The three anaphors are bound by their coargument John in that environment that the verb lacks lexical reflexivity. Thus, these anaphors are predicted to be Near reflexive anaphors by (202).

(203) a. John-wa  Mary-o     hihan-si-ta.

      John-Top Mary-Acc criticism-do-Past

      'John criticized Mary.'

    b. John-wa  {zibun / zibun-zisin / zibun-zísin}-o hihan-si-ta.

      John-Top {self   / self-self     / self-Self}-Acc criticism-do-Past

      'John criticized {himself / the statue that depicts him}.'

We, thus, have a contradiction. In the diagnostics in (199c) and (200c), *zibun-zísin* behaves like a Pure reflexive anaphor, though it is predicted as a Near reflexive anaphor by (202). Does that we have a contradiction mean that Lidz's analysis does not apply to Japanese? The answer is 'No, his analysis applies to Japanese.' I will come back to this issue in Chapter 4.

### 3.4.3   Focus operator anaphor in Japanese

In this subsection, I consider if Liu's (2003) focus operator anaphor analysis of Chinese anaphor *ziji-benshen* 'self-Self' applies to Japanese. His proposal is that this anaphor yields Pure identity and that this reading arises as a consequence of the semantic composition of the anaphor: (a) the Near reflexive function of *ziji* 'self,' (b) a focus function of *-benshen* '-Self' and (c) the operator status of the anaphor *ziji-benshen*. The

composition of this anaphor looks similar to *zibun-zísin* in Japanese that also consists of two parts. Both *ziji-benshen* and *zibun-zísin* consist of a Near reflexive anaphor and an adnominal intensifier. *Zibun* is classified as a Near reflexive anaphor in (201) and predicted to be a Near reflexive anaphor in (202), so I conclude that this anaphor is a Near reflexive anaphor. As for the *-zisin* suffix, I believe that it is reasonable to regard this suffix as having the same function as the *-benshen* suffix in Chinese. For, as we have seen in Section 2.2.1, the *-zisin* suffix functions as an adnominal intensifier that adds a contrastive or contrary-to-expectation meaning. We have seen in Section 3.3.1 that the Chinese *-benshen* suffix is also an adnominal intensifier. The behavior of *-zísin* is similar to the one of *-benshen*: in (204), *-zisin* adds the contrary-to-expectation meaning or it marks focus that involves a notion of scalarity with respect to the expectations of the speaker, as does *-benshen* in (188).

(204) Amerika to  wagakuni-no    gaikou kankei-o       kyoukasuru    tame
    America and our country-Gen diplomatic relation-Acc reinforce.Pres to
    syusyou-**zisin**-ga    Amerika-no    kokumutyouan-o       kuukou e  mukaeni it-ta.
    president-Self-Nom America-Gen secretary of state-Acc airport  to welcome go-Past
    'In order to reinforce the diplomatic relationship between the United States and us, the president *himself* will come to the airport to welcome the U.S. Secretary of State.'

If the *zibun* part is a Near reflexive anaphor, the entire anaphor *zibun-zísin* would have a semantic range, as does *ziji-benshen*. Based on these observations, I claim that *zibun-zísin* in Japanese is equivalent to *ziji-benshen* in Chinese in terms of its morphological and semantic composition and I call *zibun-zísin* 'intensifier operator anaphor.'

If *zibun-zísin* behaves parallel to *ziji-benshen*, the results of the diagnostics in (199c) and (200c) are explained in the following way.

(205) John-wa  zibun-zísin-o hihan-si-ta.                                        (= (199c))

     John-Top self-Self-Acc criticism-do-Past

     'John criticized self-self.' (*zibun-zisin* = John, *statue)

(206) Mary-ga    John yorimo hagesiku zibun-zísin-o hihan-si-ta.          (= (200c))

     Mary-Nom John than    severely  self-Self-Acc criticism-do-Past

     'Mary criticized herself more severely than John criticized himself.' (sloppy)

    *'Mary criticized herself more severely than John criticized her.' (non-sloppy)

What is induced in (205) is Pure identity, not Pure reflexivity, as a consequence of the semantic composition of *zibun-zísin* (Recall Section 3.3.2 for Liu's account for Pure identity interpretation). *Zibun-zísin* is an operator that has the semantic range due to the Near reflexive function of *zibun* and that *zibun-zísin* undergoes an operator movement at LF. When we consider its semantics, the intensifier function of *-zísin* '-Self' selects one element that is highest on the scale of these elements that could be construed as the antecedent from the set of what the Near reflexive function *zibun* 'self' denotes. As a consequence, the antecedent itself is selected. The unavailability of non-sloppy identity reading in the comparative deletion construction in (206) is explained as follows. The LF representation of the sentence is like (207). The operator anaphor is subject to strong binding so only the local subject *John* can be the reference of the element.

(207)  [ [ John ] [$_{VP}$ *zibun-zisin*$_i$ [$_{VP}$ . . . $t_i$ . . . ] ] ]                    (the elided part of (206))

In the above diagnostics in (199) and (200), *zibun-zísin* and *ziko-* apparently show the same results, but how these readings are induced and what are induced differ. *Zibun-zísin* yields a Pure identity reading as a consequence of the semantic composition of the anaphor, while *ziko-* induces a Pure reflexivity reading as a consequence of Condition R.

The assumption that *zibun-zísin* is an intensifier operator anaphor seems correct in terms of semantics and pragmatics too. The two types of anaphor induce different readings in (208a) and (208b).[13]

(208)  a. John-wa  zibun-zísin-o hihan-si-ta.

John-Top self-Self-Acc criticism-do-Past

'John criticized himself, not someone else.'

b. John-wa  ziko-hihan-si-ta.

John-Top self-criticism-do-Past

'John criticized himself.'

*Zibun-zísin* that functions as an intensifier operator anaphor have richer semantic / pragmatic contents, and the sentence means 'John criticized himself, not someone else.' *Ziko-* is, in contrast, just a variable without any additional meaning such as focus or contrast. Based on the above observations, I conclude that Liu's (2003) analysis of focus operator anaphor explains the behavior and properties of *zibun-zísin* in Japanese.

By adopting Lidz (1996, 2001a,b) and Liu (2003), the behavior of the four types of reflexive anaphors in Japanese can be accounted for. Under that approach, the four types are classified as (209).

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[13]The two sentences are exactly the same as (199b) and (199d), but here we do not interpret the sentences with statue readings.

(209) Classification of Japanese Anaphors

| Item | Type |
|------|------|
| *Zibun* | Near reflexive anaphor |
| *Zibun-zisin* (anaphor) | Near reflexive anaphor |
| *Zibun-zísin* (intensified reflexive *zibun*) | intensifier operator anaphor |
| *Zi-/ziko*-affixes | Pure reflexive anaphor |

We, however, have a contradiction if we apply both Lidz's (1996, 2001a,b) and Liu's (2003) analyses to Japanese. Adopting the two analyses to Japanese means that this language has both Pure reflexivity induced by *ziko-* and Pure identity induced by *zibun-zísin*. This contradicts with Liu's (2003) claim that there are two ways to induce Pure identity reading in languages: Pure reflexivity and Pure identity, and that a language disjunctively selects one of the two ways (for example, Dutch takes the first way, while Chinese takes the second way), as we have seen at the end of Section 3.3. It is, however, not clear if the two ways to yield Pure identity reading should be disjunctively selected in languages and how a language selects one of the two ways. To adopt both Lidz's and Liu's analyses to account for the behavior of Japanese reflexive anaphors, I need to resolve the contradiction and answer these questions.

## 3.5 Chapter summary

In this chapter, I have reviewed three previous studies on reflexivity: Reinhart and Reuland (1993), Lidz (1996, 2001a,b) and Liu (2003), in Sections 3.1-3.3, and considered how reflexive elements in one language differ and how they are classified. Reinhart and Reuland (1993) propose that anaphors are classified based on their morphological complexity into two types and that these two types of anaphor differ in their syntactic function. Morphologically complex SELF-anaphors function as reflexivizers: they can add reflexivity to predicates that lack inherent reflexivity, while morphologically simplex SE-anaphors lack this function. They also suggest that some predicates are lexically specified as a reflexive verb, while some are not. Lexically non-reflexive verbs are reflexivized by a reflexivizer anaphor (syntactically reflexive-marked predicates), while lexically reflexive verbs take a non-reflexivizer anaphor (lexically reflexive-marked predicates). Lidz (1996, 2001a,b), arguing against Reinhart and Reuland, demonstrates that syntactically reflexive-marked predicates and lexically reflexive-marked predicates do not form a natural class and that anaphors are classified based on their semantics into two types as Pure reflexive anaphors and Near reflexive anaphors. He proposes that there are two types of reflexivity: Pure reflexivity and Near reflexivity. Liu (2003) argues that there is another type of reflexivity: Pure identity. While what induces Pure reflexivity is a Pure reflexive anaphor, what yields a Pure identity is an operator anaphor that has a special function like focus. He shows that the two types of Pure identity reading have several different properties.

These works discuss quite a number of languages that have multiple forms of reflexive anaphors, but not Japanese. In Section 3.4, I have applied each analysis to Japanese and observed how each analysis classifies reflexive anaphors: *zibun* 'self,' *zibun-zisin* 'self-self' (anaphor), *zibun-zísin* 'self-Self' (the intensified form of reflexive *zibun*) and *zi-/ziko*-affixes 'self-.' The applications of these analyses indicate that the reflexive elements show different patterns in several environments. I have concluded that Reinhart and Reuland's (1993) analysis is not applicable to Japanese because (a) their way of anaphor classification does not match Japanese anaphors and (b) the predicate system in Japanese is very different from the ones in the languages that they observe. I have claimed that the application of the two analyses in Lidz (1996, 2001a,b) and Liu (2003) explains the behavior of the reflexive anaphors in Japanese: *zibun* and *zibun-zisin* are Near reflexive anaphor, *zibun-zísin* as the intensified form of *zibun* is an intensifier operator anaphor and *zi-/ziko*-affixes are Pure reflexive anaphors. However, if the two analyses apply to Japanese, it means that this language has both ways to yield Pure identity readings: Pure reflexivity induced by *zi-/ziko*-affixes (as a consequence of Condition R in (176)) and Pure identity induced by *zibun-zisin* (as a consequence of the semantic composition of the anaphor). This contradicts with what Liu (2003) claims: languages disjunctively select one of the two ways. I resolve this contradiction in the following chapter.

# Chapter 4

# Classification of Reflexives

In this chapter, I aim to find a proper way to classify reflexive anaphors in Japanese, or more generally, in languages that have multiple forms of anaphors.[1] I give two proposals. These proposals not only achieve the aim but also resolve the contradiction caused by adopting both Lidz's (1996, 2001a,b) and Liu's (2003) analyses that we have encountered at the end of Chapter 3: the behavior of the reflexive anaphors in Japanese can be explained if we apply the two analyses, but the application of the two analyses is contradictory with Liu's (2003) claim with respect to the way for a language to induce a Pure identity reading.

My first proposal is that there are only two types of anaphor in languages: Pure reflexive anaphors and Near reflexive anaphors (Lidz, 1996, 2001a,b), and that what looks like a third type: operator anaphors with special function such as the Chinese anaphor *ziji-benshen* 'self-Self' with a focus function (Liu, 2003) as reviewed in Section 3.3, is a subcase of Near reflexive anaphor. My second proposal is that there is parametric variation among languages with respect to the classification of anaphor into the two types. In languages of a first variation like Dutch and Kannada, the morphological complexity of anaphors corresponds to the Pure reflexive and Near reflexive anaphor distinction. On the other hand, in languages of a second variation, like Russian and Japanese, affixal anaphors are Pure reflexive anaphors, while non-affixal (free-morpheme) anaphors are

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[1]Some discussions in this chapter are refined versions of a part in Kishida (2009).

Near reflexive anaphors.

In Section 4.1, I introduce my first proposal showing the data in Japanese. I explain my second proposal in Section 4.2, giving the data from many languages. I consider what yields the variation in the reflexive anaphor classification. Section 4.3 is the summary of this chapter.

## 4.1 Two-way classification of reflexives in languages

My first proposal is that there are only two types of anaphor: Pure reflexive anaphors and Near reflexive anaphors (Lidz, 1996, 2001a,b), in languages, and that what looks like a third type of anaphor such as *ziji-benshen* 'self-Self' with a focus function in Chinese (Liu, 2003) is a subcase of Near reflexive anaphor. I claim that a language can have both of the two ways to induce a Pure identity reading: Pure reflexivity as a consequence of Condition R (Lidz, 1996, 2001a,b) and Pure identity as a consequence of the properties of an anaphor (Liu, 2003), contrary to Liu's claim that a language disjunctively selects one of the two ways.

I claim that Pure identity reading is a subcase of Near reflexivity. Although I agree that there are three types of reflexivity: Pure reflexivity, Near reflexivity and Pure identity, I assume that there are only Pure reflexive and Near reflexive anaphors. We have seen in Section 3.3 that Liu (2003) claims that a Pure identity reading is as a consequence of the composition of anaphor: (a) the Near reflexive function of the anaphor– the anaphor semantically has a set of its references, (b) a special function as focus– it selects the highest element on the scale of the set and (c) its operator status– it constitutes an operator-

variable relation at LF. I do not see any reason to regard this type of anaphor as a separate class from Near reflexive type. A Pure identity reading is rather one case of Near reflexive readings: an anaphor that yields a Pure identity reading is classified as a Near reflexive anaphor in nature because the referent of the anaphor that yields a Pure identity reading is the highest element on the scale of a set that the Near reflexive function denotes. This type of anaphor just does not behave like a Near reflexive anaphor due to its special function, like focus in the case of Chinese *ziji-benshen* (Liu, 2003).

I assume that the truth-conditional relation of the three types of reflexivity is like (210): Pure reflexivity is a subcase of Pure identity (see also Liu (2003)), and Pure identity is a subcase of Near reflexivity. The two types of Pure identity readings: Pure reflexivity and Pure identity, are not complementary in a language. The selection of the way to induce a Pure identity reading need not to be disjunctive, contrary to Liu's claim. I show how a language has the three types of reflexivity by giving the data in Japanese below.

(210)

| Pure reflexivity | Pure identity | Near reflexivity |
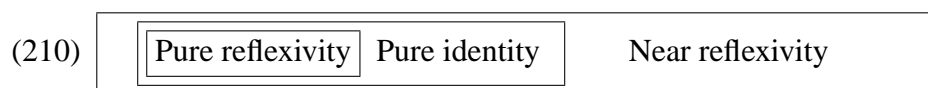
In Section 4.1.1, I explain my first proposal, considering the four types of Japanese anaphor that we have observed in Chapter 3: *zibun* 'self,' *zibun-zisin* 'self-self,' *zibun-zísin* 'self-Self' and *zi-/ziko*-affixes 'self-.' I show evidence for my proposal that there are only Pure reflexive anaphors and Near reflexive anaphors in languages and that what looks like a third type of anaphor, namely *zibun-zísin*, is a subcase of Near reflexive anaphor. In Section 4.1.2, I focus on the other two types of reflexive anaphor *zisin* and *mizukara*, both mean 'self': we have reviewed their properties in Section 2.4 but paid less attention to them so far.

### 4.1.1 Evidence from Japanese: *Zibun, Zibun-zisin* and *Ziko-*

In Section 3.4.2, I have applied the two diagnostics that separate Pure reflexive anaphors from Near reflexive anaphors (Lidz, 1996, 2001a,b) to the the four types of Japanese reflexive anaphors: *zibun* 'self,' *zibun-zisin* 'self-self,' *zibun-zísin* 'self-Self' and *zi-/ziko-*affixes 'self-.' Among the four types, in the Madame Tussaud context, in (199), only *zibun* and *zibun-zisin* allow statue interpretations, and *zibun-zísin* and *ziko-* do not. In (200), in the comparative deletion construction, the first two anaphors allow non-sloppy identity readings, while the latter two do not. In Section 3.4.2, I have made a conclusion that what it induces in (199c) is not Pure reflexivity, but Pure identity adopting Liu's (2003) analysis, and proposed that *zibun* and *zibun-zisin* are Near reflexive anaphors, *zibun-zísin* is an intensifier operator anaphor, and *ziko-* is a Pure reflexive anaphor, as summarized in (211) (= (209)).

(211) Classification of Japanese Anaphors

| Item | Type |
|---|---|
| *Zibun* | Near reflexive anaphor |
| *Zibun-zisin* (anaphor) | Near reflexive anaphor |
| *Zibun-zísin* (intensified *zibun*) | intensifier operator anaphor |
| *Zi-/ziko-*affixes | Pure reflexive anaphor |

Apparently, there are three types of anaphors. I, however, claim that there are actually only two types of anaphor: Pure reflexive anaphors and Near reflexive anaphors. What

looks like a third type; an intensifier operator anaphor or a Pure identity anaphor, is actually a subcase of Near reflexive anaphors. Recall how a Pure identity reading is yielded: a Pure identity is as a consequence of the semantic composition of the anaphor *zibun-zísin*: (a) the Near reflexive function of *zibun* 'self,' (b) an intensifier function of *-zísin* '-self' and (c) the operator status of the anaphor *zibun-zísin*. What is (finally) induced by *zibun-zísin* does not look like a Near reflexivity, but the anaphor actually functions as a Near reflexive anaphor in the course of inducing the Pure identity reading: the Near reflexive function of *zibun* denotes a set of its references, and the intensifier function of the *-zísin* part selects one element that is highest on the scale of these elements that could be construed as the antecedent from the set. *Zibun-zísin* contains the Near reflexive function, then it is a Near reflexive anaphor. My claim is that this anaphor is a Near reflexive anaphor but it does not behave like a Near reflexive anaphor because it has a special function as an intensifier.

Then, the four types of Japanese anaphor are classified as given in (212).

(212) Genuine Classification of Japanese Anaphors

| Item | Behaves as | Induces | Categorized as |
|---|---|---|---|
| *Zibun* | Near reflexive anaphor | Near reflexivity | Near reflexive anaphor |
| *Zibun-zisin* | Near reflexive anaphor | Near reflexivity | Near reflexive anaphor |
| *Zibun-zísin* | Intensifier operator anaphor | Pure identity | Near reflexive anaphor |
| *Zi-/Ziko-* | Pure reflexive anaphor | Pure reflexivity | Pure reflexive anaphor |

Now we know how the four types of Japanese anaphors are really classified, let me consider how we get the results of the (un)availabilities of statue interpretations and non-sloppy identity interpretations in the diagnostics. The statue interpretation test (199) is repeated here as (213), and the non-sloppy identity interpretation test (200) is repeated as (214). Here, I consider only *zibun*, *zibun-zísin* and *ziko-*. The behavior of the anaphor type of *zibun-zisin* can be explained in the exact same way as the case of *zibun*.

First, consider the results of statue interpretation availability in the Madame Tussaud context in (213). *Zibun* can refer to a statue of its antecedent, while *zibun-zísin* and *ziko-* cannot.

(213)  a. John-wa  zibun-o  hihan-si-ta.

      John-Top self-Acc criticism-do-Past

      'John criticized himself.' (*zibun* = John, statue)

  b. John-wa  zibun-zísin-o hihan-si-ta.

      John-Top self-Self-Acc criticism-do-Past

      'John criticized himself.' (*zibun-zísin* = John, *statue)

  c. John-wa  ziko-hihan-si-ta.

      John-Top self-criticism-do-Past

      'John criticized himself.' (*ziko-* = John, *statue)

*Zibun* in (213a) is a Near reflexive anaphor, so it has the Near reflexive function $f(x)$. The Near reflexive function takes its antecedent John as input and returns a referential extension of it, namely 'the statue of John.' In (213b), the Near reflexive function of the *zibun* part denotes a set of its references, and the intensifier function of the *-zísin* part selects one

element that is highest on the scale of these elements that could be construed as the antecedent from the set. So, the statue reading is not allowed and only the actual antecedent reading is available. In (213c), the Pure reflexive anaphor *ziko-* requires complete identity with its antecedent. It refers to only the antecedent John.[2]

Next, consider the availability of non-sloppy identity reading in the comparative deletion construction in (214).

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[2]When (213a) is embedded as in (i), *zibun* in the embedded clause can refer to the matrix subject and can be interpreted under a statue reading. On the other hand, if (213b) is embedded as in (ii), such interpretation is not available.

(i) Ringo-wa John-ga   zibun-o hihan-si-ta      to     omot-ta.

    Ringo-Top John-Nom self-Acc criticism-do-Past Comp think-Past

    'Ringo thought that John criticized himself.' (*zibun* = Ringo, statue of Ringo, John, statue of John)

(ii) Ringo-wa John-ga   zibun-zísin-o hihan-si-ta      to     omot-ta.

    Ringo-Top John-Nom self-Self-Acc criticism-do-Past Comp think-Past

    'Ringo thought that John criticized himself.'

(*zibun-zísin* = John, *Ringo, *statue of Ringo, *statue of John)

In this thesis, I do not regard non-locally bound *zibun* as a reflexive anaphor and regard *zibun* bound by non-local antecedent as the logophoric or empathic type. How the reading 'Ringo thought that John criticized the statue that depicts Ringo' is allowed in (i) needs to be explained.

(214) a. Mary-ga    John yorimo hagesiku zibun-o  hihan-si-ta.

     Mary-Nom John than    severely  self-Acc criticism-do-Past

     'Mary criticized herself more severely than John criticized himself.' (sloppy)

     'Mary criticized herself more severely than John criticized her.' (non-sloppy)

  b. Mary-ga    John yorimo hagesiku zibun-zísin-o hihan-si-ta.

    Mary-Nom John than    severely  self-Self-Acc criticism-do-Past

    'Mary criticized herself more severely than John criticized himself.' (sloppy)

   ∗'Mary criticized herself more severely than John criticized her.' (*non-sloppy)

  c. Mary-ga    John yorimo hagesiku ziko-hihan-si-ta.

    Mary-Nom John than    severely  self-criticism-do-Past

    'Mary criticized herself more severely than John criticized himself.' (sloppy)

   ∗'Mary criticized herself more severely than John criticized her.' (*non-sloppy)

*Zibun* in (214a) allows either a sloppy or a non-sloppy identity reading. Lidz's (2001a,b) account for the availability of non-sloppy readings of Near reflexive anaphor that we reviewed in Section 3.2 is highly unlikely, because a function does not seem to have an index. Instead, to account for how *zibun* allows the two readings, I adopt Kennedy and Lidz (2001). I first review their analysis and apply it to *zibun* later.

Kennedy and Lidz claim that comparative deletion construction in English, such as comparative stripping in (215) and comparative with VP-deletion in (216), involve long-distance anaphors, though it has been claimed that English does not have a long-distance anaphor.

(215) Fred defended himself better than Barney.

    = better than Barney defended himself/*Fred    (Kennedy and Lidz, 2001, (1a))

(216) Fred defended himself better than Barney did.

    = better than Barney defended himself/Fred    (Kennedy and Lidz, 2001, (2a))

Long-distance anaphors are subject to different constraints from local anaphors: for example, a long-distance anaphor *ziji* 'self' in Chinese is not subject to the Specified Subject Condition: in (217) *ziji* can refer to either the matrix subject or the embedded subject. Also, a long-distance anaphor has the 'blocking effect': if the intervening subject is first or second person, *ziji* cannot take a third person antecedent as in (218a). In contrast, as in (218b), a third person intervening subject does not block long-distance binding. As (219) indicates, a deictically identified third person subject (written in capital letters) also blocks long-distance binding. Kennedy and Lidz demonstrate that English covert long-distance anaphors are also subject to these constraints.

(217) Lisi zhidao Zhangsan chang piping   ziji                        [Chinese]

   Lisi know   Zhangsan often  criticize self

   'Lisi knows that Zhangsan often criticizes him / himself.'

                                         (Kennedy and Lidz, 2001, (7))

(218)  a. Zhangsan danxin  wo / ni hui  piping   ziji

       Zhangsan worries I / you  will criticize self

       'Zhangsan is worried that I / you will criticize myself / yourself / *him.'

b. wo / ni danxin  Zhangsan hui  piping    ziji

I / you  worries Zhangsan will criticize self

'I / you worry that Zhangsan will criticize himself / me / you.'

(219)  Zhangsan shuo TA hui  qipian-le   ziji

Zhangsan say   he  will cheat-perf self

'Zhangsan said that HE cheated himself / *him.'

(Kennedy and Lidz, 2001, (9a,b,11))

There is, however, a big difference between English long-distance anaphors that they assume from Chinese ones: English ones are covert. They assume that English covert long-distance anaphors are well-formed in syntax but cannot appear in PF because they have no morphological instantiation.

Notice that a non-sloppy identity reading is available in the VP-deletion example (216) but not in the stripping example (215). Kennedy and Lidz account for the difference as follows. They propose (220) and (221) as the semantic representation of (215) and (216), respectively. *Ziji* represents the long-distance anaphor feature structure.

(220)  Fred defended himself better than Barney [VP defended *ziji* ]

(Based on Kennedy and Lidz, 2001, (25b))

(221)  Fred defended himself better than Barney did [VP defend *ziji* ]

(Kennedy and Lidz, 2001, (28))

In both structures, the intervening subject Barney blocks the long-distance binding, because it is deictic. Then, only the local reading, in other words, the sloppy reading is

induced. Note, however, that (216) allows the non-sloppy reading as well. To account for this, adopting Hestvik (1995), Kennedy and Lidz claim that only VP-deletion constructions can have another structure in (222).

(222) Fred$_i$ [$_{FP}$ himself$_i$ [$_{VP}$ [$_{VP}$ defended $t_i$ ] better than Barney$_j$ did [$_{VP}$ defended $t_i$ ] ]

In this structure, reflexive raising occurs first, and VP-copying follows. The copied trace of the elided part is bound by the raised reflexive, via ordinary variable binding. The elided anaphor refers to the matrix subject Fred, and the non-sloppy reading is yielded. What is elided in stripping is a clause, so the structure like this is not available in the case of stripping.

Now, let us come back to (214a) that contains Japanese *zibun*. This sentence involves comparative stripping. If we follow Kennedy and Lidz (2001), the semantic representation of the sentence is like (223). Their analysis, however, can be applicable only if (a) *zibun* can function as a long-distance anaphor and (b) the intervening subject does not block long-distance binding.

(223) Mary criticized *zibun* harder than John [$_{VP}$ defended *zibun* ]

The two conditions are satisfied. As we have reviewed in Chapter 2, *zibun* allows a non-local antecedent. Also, as (224) illustrates, Japanese does not have a blocking by a deictically identified third person (as indicated in capital letters), unlike Chinese in (219).

(224) John-wa  BILL-ga zibun-o  seme-ta    to    it-ta.

    John-Top Bill-Nom self-Acc blame-Past Comp say-Past

    'John said that Bill blamed {himself / him}.'

(214a) allows the non-sloppy identity reading, because in (223), the intervening subject John does not block the long-distance binding by the matrix subject Mary. The sentence allows the sloppy identity reading as well. In that case, ordinary local binding occurs: John locally binds *zibun*.[3]

Next, let us consider *zibun-zísin* and *ziko-* in comparative deletion constructions. *Zibun-zísin* in (214b) induces only the sloppy identity reading. Adopting Liu's (2003) analysis of *ziji-benshen* 'self-Self' in Chinese, I assume that *zibun-zísin* is an operator anaphor that undergoes an LF movement, namely, adjunction to VP. As we have seen in Section 3.4.3, this anaphor is an operator that has the semantic range due to the Near reflexive function of *zibun*. The elided structure of (214b) would be like (225): it undergoes an operator movement at LF.

(225) $[ [ \text{John}_i ] [_{VP} \textit{zibun-zisin}_i [_{VP} \dots t_i \dots ] ] ]$

The anaphor constitutes an operator-variable relation with its trace: the trace of the VP-adjoined anaphor can be bound only by the local subject John because the anaphor is

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[3]I am not yet sure if Kennedy and Lidz (2001) is available to account for the availability of non-sloppy identity readings of Near reflexive anaphors in all languages. For example, in (173) in Section 3.2, we have seen that Dutch anaphor *zichzelf* behaves like a Near reflexive anaphor that allows a non-sloppy identity reading as well as a sloppy reading in comparative stripping. It is, however, unlikely that this anaphor occurs in configurations like (223) and is bound by a matrix subject, without being blocked by the intervening subject. For, this anaphor is regarded as a local anaphor, contrary to *zich* that allows non-local binding too. There is a widely believed generalization given in Faltz (1985) and Pica (1987) that monomorphemic anaphors allow long-distance binding, while polymorphemic ones do not. How much the proposal in Kennedy and Lidz (2001) and the generalization are compatible should be carefully considered.

subject to predication or strong binding by an appropriate local subject (cf. Chomsky, 1986). Therefore, only the sloppy identity reading is available.[4]

*Ziko-* in (214c) also induces only the sloppy identity reading. I adopt Lidz (2001a,b) and assume that this anaphor is a Pure reflexive anaphor that semantically functions as a variable and that the semantic structure of the sentence is (226). The Pure reflexive anaphor and its antecedent must be exactly identical. The sloppy identity reading is obligatorily induced.

(226)  [criticize (Mary,Mary)] better than [criticize (John,John)]

So, *zibun* is a Near reflexive anaphor, *zibun-zísin* is a Near reflexive anaphor that functions as an intensifier operator anaphor, and *ziko-* is a Pure reflexive anaphor. *Zibun-zisin* that shows the exact same patterns as *zibun* in the two diagnostics is also a Near reflexive anaphor.

Here, I introduce a very interesting observation: the four types of anaphor with a plural subject show different availabilities of the distributive and collective readings.[5] Before seeing the contrasts that the anaphors show, I review some previous works that discuss the availability of distributive and collective readings of *zibun*. Then, I compare this item with other types of anaphor.

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[4]Another way to account for the unavailability of non-sloppy identity reading of *zibun-zísin* is to assume that it occurs in configurations like (223) and but only the local binding is accepted because of the contrastive meaning.

[5]I thank Satoshi Tomioka and Masahiro Yamada for pointing out the different availabilities of Japanese anaphors with a plural subject in distributive and collective interpretations.

Abe (1977) and Kawasaki (1989) report some interesting properties of *zibun*. A first property is that *zibun* can take either a singular noun or a plural noun as its antecedent: in (227a), *zibun* refers to the singular object John as its antecedent, while in (227b), it refers to the plural object *John to Mary* 'John and Mary.'

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

      John-Nom self-Acc criticism-do-Past

      'John criticized himself.'

    b. [ John to   Mary ]-ga    zibun-o  hihan-si-ta.

      John and Mary -Nom self-Acc criticism-do-Past

      'John and Mary criticized themselves.'

A second property is that *zibun* with a plural subject allows only the distributive interpretation. Let us first consider the English translation of this Japanese sentence in (227b): *John and Mary criticized themselves*. This English sentence has more than one reading. It can describe the situation in which each of John and Mary is engaged in an action of self-criticism (John criticized himself and Mary criticized herself). This is called the distributive reading. Distributivity is extended to both the subject and the object, and a singular member of the plural subject does a(n atomic) self-criticizing event. In addition to this reading, the sentence can be interpreted in several ways: John and Mary as a pair criticized themselves (John and Mary said 'we were wrong'), or John and Mary separately criticized their own group or team (John said 'Mary and I were wrong' and Mary said 'John and I were wrong'). These readings are called the collective readings. Distributive readings involve multiple selves, while collective readings do not. Now, let

us go back to the Japanese sentence (227b). Although the English translation has several readings, the Japanese sentence does not have such an ambiguity. *Zibun* with a plural antecedent allows only the distributive reading 'John criticized himself and Mary criticized herself.' The Japanese sentence in (227b) lacks any collective interpretations. To yield a collective reading using *zibun*, the plural marker *tati* has to be attached to *zibun* as in (228).

(228)  [ John to   Mary ]-ga   zibun-**tati**-o hihan-si-ta.

     John and Mary -Nom self-Pl-Acc  criticism-do-Past

    'John and Mary criticized themselves.'          (\*distributive / collective)

This sentence has two versions of collective reading: 'The John-and-Mary pair criticized their pair' and 'John criticized the John-and-Mary pair and Mary also criticized the pair,' but it does not have the distributive reading that (227b) has.[6]

    Let us now compare the other three types of anaphor to *zibun* in (227b), repeated here as (229a). Here again, the sentences in (229b)-(229d) have the same English translation, but different readings are yielded .

(229)  a.  [ John to   Mary ]-ga   zibun-o  hihan-si-ta.          (= (227b))

      John and Mary -Nom self-Acc criticism-do-Past

     'John and Mary criticized themselves.'      (distributive / \*collective)

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[6]I will explain how these collective readings are yielded later in this chapter. My analysis is different from Kawasaki (1989) who claims that *zibun-tati* is an independent anaphor from *zibun*, based on the fact that *zibun-tati* 'self-Pl' does not behave like *zibun* in terms of the availability of collective reading.

b. [ John to   Mary ]-ga   zibun-zisin-o hihan-si-ta.

   John and Mary -Nom self-self-Acc criticism-do-Past

   'John and Mary criticized themselves.'          (distributive / *collective)


c. [ John to   Mary ]-ga   zibun-zísin-o hihan-si-ta.

   John and Mary -Nom self-Self-Acc criticism-do-Past

   'John and Mary criticized themselves.'          (distributive / *collective)


d. [ John to   Mary ]-ga   ziko-hihan-si-ta.

   John and Mary -Nom self-criticism-do-Past

   'John and Mary criticized themselves.'          (distributive / collective)


The sentences in (229a)-(229c) with *zibun*, *zibun-zisin* and *zibun-zísin*, respectively, have

only the distributive readings: John and Mary, respectively, did a self-criticizing event. On

the other hand, the sentence (229d) with the affixal *ziko-* has the collective reading: the

John and Mary pair did an own-pair-criticizing event, as well as the distributive reading.

What is the relation between reflexives and distributivity?

    Interestingly, in Chinese and Korean as well, certain types of anaphor allow only

distributive interpretations when they occur with a plural subject. The Chinese anaphor

*ziji* 'self' in (230a) allows only the distributive reading: each of A, B and C is doing

self-praising. The Korean anaphor *caki* 'self' in (230b) also allows only the distributive

reading: each child hates himself/herself.

(230)  a. Tamen you   zai kuajiang ziji  la.                                    [Chinese]

          they    again at  praise    self Asp

          'They are praising themselves again.'

    b. Ai-tul-i        caki-ka   miwa-ha-ta.                       [Korean]

       child-Pl-Nom self-Nom hate-do-Dec

       '(lit.) The children hate self.'           (Madigan and Yamada, 2006)

Here, let us review Huang's (2001) account for the unavailability of collective readings of the Chinese anaphor *ziji* with a plural subject. (230a) above and (231) below show that the anaphor *ziji* 'self' with a plural antecedent induces only distributive readings.

(231)  Zhangsan he   Lisi zai piping   ziji.                    [Chinese]

     Zhangsan and Lisi at   criticize self

    'Zhangsan and Lisi are criticizing themselves.'     (distributive /*collective)

                                              (Huang, 2001, (12a))

Huang attributes the strict distributivity of *ziji* to the singularity of predicates. A predicate that denotes an atomic event or an event that can be done by one individual at a time, such as *cough* in (232a) or *shave* in (232b), necessarily induces a distributive reading when it occurs with a plural subject. For example, in (232a), John and *Bill* were not able to give one cough together. Each of them, separately, coughed. In (232b) as well, each of them shaves his own beard.[7]

(232)  a. John and Bill coughed.

      b. They are shaving themselves.             (Huang, 2001, (30a,b))

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[7]The plural anaphor *themselves* in (232b) is syntactically expressed in the plural form, but it is semantically regarded as singular. This item is an example of what is known as 'dependent plural' (Roberts, 1987).

Huang claims that lexical reflexive predicates, which lexically incorporate a reflexive element such as the verb *ziwo-piping* 'self-criticism' in (233), share this property. These predicates also denote an atomic event and forces distributivity on plural subjects.

(233)  Zhangsan he   Lisi zai ziwo-piping.

Zhangsan and Lisi at   self-criticize

'Zhangsan and Lisi are engaged in self-criticism.'          (Huang, 2001, (32a))

He proposes that verbs that take *ziji* as their objects and take plural subjects, like the one (231), constitute lexical reflexive predicates at LF. Under his analysis, the LF representation of (231) is (234).

(234)  Zhangsan he   Lisi zai ziji- piping    *t*.

Zhangsan and Lisi at   self criticize

'Zhangsan and Lisi are engaged in self-criticism.'          (Huang, 2001, (33))

Thus, in the same logic as the case of verbs that denote an atomic event like the ones in (232) and lexical reflexive verbs like the one in (233), only a distributive reading is induced in (231).

However, I point out that Huang's account has a problem. He reports that (233) with the lexical reflexive predicate *ziwo-piping* induces the distributive reading: both Zhangsan and Lisi are engaged in an act of self-criticism, but does not yield the collective reading: they criticize each other. The sentence, however, allows a reading in which Zhangsan and Lisi as a group criticize themselves (or their own group). This is one instance of collective readings. Then, to keep his LF lexical reflexive analysis, Huang has to explain

why lexical reflexive predicates in overt syntax can induce one type of collective reading but why lexical reflexive predicates only in covert syntax excludes that reading.

I would like to make an alternative proposal.[8] Both *zibun* and *ziko-* can occur with a singular subject as (235) indicates.

(235) a. John-ga    zibun-o  hihan-si-ta.                              (= (227a))

      John-Nom self-Acc criticism-do-Past

      'John criticized himself.'

    b. John-ga    ziko-hihan-si-ta.

      John-Nom self-criticism-do-Past

      'John criticized himself.'

Also, as in (236a) and (236b), both can occur with a plural subject too. The two expressions in (236), however, allow different readings .

(236) a. [ John to   Mary ]-ga   zibun-o  hihan-si-ta.          (= (227b), (229a))

      John and Mary -Nom self-Acc criticism-do-Past

      'John and Mary criticized themselves.'          (distributive / *collective)

    b. [ John to   Mary ]-ga   ziko-hihan-si-ta.                     (= (229d))

      John and Mary -Nom self-criticism-do-Past

      'John and Mary criticized themselves.'          (distributive / collective)

I attribute the strict distributivity of *zibun* to its property that allows only a singular reference. Consider the mass noun antecedent availability of *zibun* and *ziko-*.

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[8]The discussion with Mitsue Motomura and Asako Uchibori has been very helpful. I am grateful to them.

(237) a. */?*Nihon.seihu-ga        zibun-o  hihan-si-ta.

   Japan's government-Nom self-Acc criticism-do-Past

   'Japan's government criticized itself (*themselves).

   b. Nihon.seihu-ga        ziko-hihan-si-ta.

   Japan's government-Nom self-criticism-do-Past

   'Japan's government criticized itself.

(237a) illustrates that *zibun* is incompatible with a mass noun subject: the subject *nihon seihu* 'Japan's government' is in the singular form, as evidenced by the English translation contains *itself*, not *themselves*. This element is, however, semantically not singular, and interpreted as 'a group that consists of government officials.'[9] In (236a), *zibun* occurs with the plural subject, but only the distributive interpretation in which each of the member of the plural subject does a reflexive action to him/herself. *Zibun* cannot refer to John and Mary as a pair, because the reference is not singular. *Ziko-*, in contrast, does not have this property. As an evidence, it takes the mass noun subject *nihon.seihu* 'Japan's government' in (237b). I propose that, in (236b), the distributive reading is yielded if *ziko-* refers to the subject distributively as the singular John and the singular Mary. The collective reading is yielded when the subject *John to Mary* 'John and Mary' is collectively interpreted like a mass noun: a group that consists of John and Mary.

---

[9]I have defined reflexive anaphors as elements that have Animacy restriction on their antecedents. Then, the restriction is apparently violated in (237a), because the subject 'government' looks inanimate. We have, however, seen in (99) in Section 2.3.1 that the *zi*-affix used in reflexive verbs does require an animate subject. I assume that the subject in (237a), *nihon seihu* 'Japan's government,' refers to the group that consists of government officials and therefore it is regarded as animate.

Recall that, as we have seen in (229), *zibun-zisin* and *zibun-zísin* behave like *zibun* when they take a plural subject: they allow only distributive readings, while *ziko-* allows collective readings as well as distributive readings. Now, notice that *zibun*, *zibun-zisin* and *zibun-zísin* are all Near reflexive anaphors, and *ziko-* is a Pure reflexive anaphor in the classification under my proposal in (212). Thus, in Japanese, Near reflexive anaphors induce only a distributive reading (regardless of the presence of special function), whereas Pure reflexive anaphors induce a collective reading as well when they occur with a plural subject. Interestingly, this pattern is observed in other languages as well. We have seen above that *zich* 'self' in Dutch is the Pure reflexive anaphor and *zichzelf* 'selfself' is the Near reflexive anaphor (recall examples like (173)). Reuland (2008, 2011a) reports that the two anaphors show different availabilities of the distributive and collective readings when they occur with plural subjects, as (238) illustrates.

(238) a. De soldaten verdedigden zich met succes.              [Dutch]

     the soldiers defended    self  successfully

     'The soldiers defended themselves successfully.' (distributive)

     'The soldiers defended 'them' successfully.' (collective)

   b. De soldaten verdedigden zichzelf met succes.

     the soldiers defended   selfself  successfully

     'The soldiers defended themselves successfully.' (distributive)

     *'The soldiers defended 'them' successfully.' (*collective)

                               (Reuland, 2011a, (82) with small modification)

Imagine that a group of soldiers has been given the assignment to hold a hill and their enemy attacked them. If the soldiers kept the hill but at the cost of most of their lives, this situation can be described in Dutch by (238a) with *zich*, but not by (238b) with *zichzelf*. If the soldiers lost the hill but they all stayed alive, either (238a) or (238b) can describe this situation. In Dutch, the Pure reflexive anaphor *zich* yields either a collective or a distributive reading, while the Near reflexive anaphor *zichzelf* induces only a distributive reading. This pattern is observed in Japanese as well. Thus, there would be a generalization that Near reflexive anaphors induce only a distributive reading, whereas Pure reflexive anaphors allow a collective reading as well when they occur with a plural subject. We will see if the generalization holds in other languages as well in Section 4.2.

Before closing this subsection, let me come back to the issue of *zibun* that takes the plural marker *-tati*. We have seen in (228), repeated here as (239), that *zibun* that takes the plural marker *-tati* yield different readings from *zibun* without the marker, when they take a plural subject. One of the functions of the *-tati* morpheme is to mark plurality, as does *-s* in English. It seems that this function counteracts the singular reference requirement of *zibun* that we observed above: the (a) reading is allowed and the (b) reading is excluded.

(239)  [ John to   Mary ]-ga    zibun-tati-o hihan-si-ta.

     John and Mary -Nom self-Pl-Acc criticism-do-Past

    (a)  'John and Mary (as a set) criticized themselves (as a set).'      (collective)

    (b)∗'John criticized himself and Mary criticized herself.'      (∗distributive)

    (c)  'John criticized the J-M pair and Mary criticized the J-M pair.'     (collective)

The *-tati* morpheme has another function: an expression consists of a noun and the morpheme denotes a group that includes the noun. For example, *John-tati* refers to 'the group that includes John and someone else.' In the (c) reading, the object argument is not interpreted as singular due to this function of *-tati*, though *zibun* refers to the singular reference John and Mary, respectively. The sentence is interpreted as: [John criticized the set that consists of John and someone else] and [Mary criticized the set that consists of Mary and someone else].

## 4.1.2   More evidence: *Zisin* and *Mizukara*

Now, I consider other reflexive elements reviewed in Section 2.4: *zisin* 'self' and *mizukara* 'self.' I apply the two diagnostics that distinguish Pure reflexive anaphors from Near reflexive anaphors (Lidz, 1996, 2001a,b) to the two anaphors and compare them to *zibun* (see (199a/200a) and (213a/214a) for *zibun*'s behaviors in the diagnostics). I also test if these anaphors allow collective readings when they occur with plural subjects.

I study *zisin* first. This anaphor shows similar patterns with *zibun* in the two diagnostics: in the Madame Tussaud context, in (240), *zisin* can refer to a statue of its antecedent. In the comparative deletion construction, in (241), both the sloppy and non-sloppy identity readings are available.

(240) John-wa  zisin-o   hihan-si-ta.

    John-Top self-Acc criticism-do-Past

    'John criticized himself.' (*zisin* = John, statue)

(241) Mary-ga    John yorimo hagesiku zisin-o    hihan-si-ta.

Mary-Nom John than     severely  self-Acc criticism-do-Past

'Mary criticized herself more severely than John criticized himself.' (sloppy)

'Mary criticized herself more severely than John criticized her.' (non-sloppy)

When *zisin* occurs with a plural subject in (242), only the distributive reading: John did a self-criticism and Mary did a self-criticism, is allowed and any collective reading is excluded, like the case of *zibun* in (227b).

(242) [ John to   Mary ]-ga    zisin-o    hihan-si-ta.

John  and Mary -Nom self-Acc criticism-do-Past

'John and Mary criticized themselves.'                (distributive / *collective)

The results of the three tests show that the behavior of *zisin* is very similar to that of *zibun*. We have already seen in Section 2.4.1 that *zisin* is not often used in colloquial speech and that *zisin* occurs in more restricted environments compared to *zibun*. *Zisin* can felicitously occur with predicates that describe more abstract action such as *hihan-suru* 'criticize' in (243a), but it does not felicitously occur with predicates that describe physical action, such as *miru* 'see' in (243b). *Zibun*, on the other hand, can felicitously used with both types of verb in (243a) and (243b).

(243)  a. John-wa  {zisin / zibun}-o  hihan-si-ta.

John-Top {self   / self}-Acc criticism-do-Past

'John criticized himself.'

b. John-wa (kagami-no nakade) {??zisin / zibun}-o mi-ta.

   John-Top mirror-Gen inside   { self / self}-Acc see-Past

   'John saw himself (in the mirror).'

In environments where *zisin* is available, *zibun* is always available, but not vice versa. To use *zisin*, speakers need to select verbs. I guess that the selection of verbs in the use of *zisin* is a burden for speakers and that this is one of the reasons that this type of anaphor is rarely used in Japanese.

   Next, let us observe the behavior of *mizukara* in the diagnostics.

(244) John-wa mizukara-o hihan-si-ta.

   John-Top self-Acc    criticism-do-Past

   'John criticized himself.' (*mizukara* = John, *statue)

(245) Mary-ga    John yorimo hagesiku mizukara-o hihan-si-ta.

   Mary-Nom John than    severely self-Acc    criticism-do-Past

   'Mary criticized herself more severely than John criticized himself.' (sloppy)

   *'Mary criticized herself more severely than John criticized her.' (non-sloppy)

In the Madame Tussaud context, in (244), *mizukara* does not refer to a statue of its antecedent. In the comparative deletion construction in (245), only the sloppy identity reading is induced. The non-sloppy identity reading is not induced. *Mizukara* does not behave like *zibun* in the diagnostics, so this anaphor does not look like a Near reflexive anaphor. However, if we follow (202), the prediction that Condition R (Lidz, 1996, 2001a,b) makes, this anaphor is categorized as a Near reflexive anaphor, because *mizukara* is bound by a

coargument in the absence of lexical reflexivity in (244): recall the verb in the example lacks lexical reflexivity. How can we account for this contradiction?

Recall that we have seen in Section 2.4.3 that *mizukara* strictly requires a local antecedent and has a contrastive meaning. In (148), repeated here as (246), *mizukara* refers only to its local antecedent Mary and cannot refer to the non-local antecedent John. The sentence means 'John told Joe that Mary blamed herself, not someone else.' What the anaphor refers to is 'Mary, not someone else'

(246) John-wa Joe-ni Mary-ga mizukara-o seme-ta to it-ta.　　(= (148))

　　John-Top Joe-Dat Mary-Nom self-Acc　blame-Past Comp say-Past

　　'John$_i$ told Joe$_j$ that Mary$_k$ blamed self$_{*i/*j/k}$.'

This suggests that this item, then, should not be analyzed as a normal Near reflexive anaphor like *zibun* that does not have such a contrastive meaning. I claim that *mizukara* is a Near reflexive anaphor, but this does not behave as a Near reflexive anaphor in the diagnostics because this item is semantically special: it has the additional contrastive meaning, like *zibun-zísin*, the intensified form of reflexive *zibun*, that adds a contrary-to-expectation meaning. In the case of *zibun-zísin*, its non-Near-reflexive-anaphor-like behavior is attributed to the semantic composition of the anaphor: the Near reflexive *zibun* and the adnominal intensifier *-zísin*. I still do not know how the unexpected patterns of *mizukara* in the diagnostics is explained, but it is clear that its semantic composition of the anaphor is not relevant in the case of this anaphor because *mizukara* is morphologically not decomposable.

In (247), we test if *mizukara* allows a collective interpretation. The result supports

the above classification that *mizukara* is a Near reflexive anaphor: when it occurs with the plural subject, it behaves like other normal Near reflexive anaphors and allows only the distributive reading and excludes any collective readings.

(247) [ John to   Mary ]-ga   mizukara-o hihan-si-ta.

      John  and Mary -Nom self-Acc     criticism-do-Past

     'John and Mary criticized themselves.'                 (distributive / *collective)

Based on these observations, I categorize *mizukara* as a Near reflexive anaphor, like *zisin*. The two anaphors, however, behave differently, because the former has the contrastive meaning, like *zibun-zísin*.[10]

## 4.1.3   Summary

In Section 4.1, I have introduced that my first proposal that there are only Pure reflexive anaphors and Near reflexive anaphors in a language and shown that this proposal explains the behaviors of the multiple forms of Japanese anaphors. The two types of anaphor, correlating with other factors, yield the three types of reflexivity: Near reflex-

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[10] *Mizukara* shows similar patterns with *zibun-zísin* in another environment. Katada (1988, 176) reports both allow backward binding when they are scrambled, while *zibun* does not allow backward binding in the same environment as in (i). Although Katada claims the anaphor type of *zibun-zisin* allows backward binding, I think that what allows backward binding is *zibun-zísin*, the intensified form of *zibun*.

(i) John-wa  Bill-ni   {mizukara / zibun-zísin / *zibun}-o   [Mary-ga   *t* seme-ta]   to     it-ta.

    John-Top Bill-Dat {self        / self-Self    /    self}-Acc [Mary-Nom   blame-Past] Comp say-Past

   'John said to Bill that Mary blamed self.'

ivity, Pure reflexivity and Pure identity. I assume that Pure identity is a subcase of Near reflexivity.

(248)  | Pure reflexivity | Pure identity |   Near reflexivity
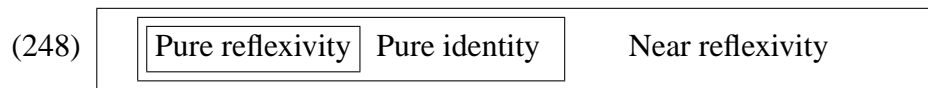
The anaphors in Japanese are classified into the two types of anaphor. *Zibun*, *zibun-zisin*, *zibun-zísin*, *zisin* and *mizukara* are Near reflexive anaphor that induce Near reflexivity. Among them, *zibun-zísin* and *mizukara* do not behave similarly with other Near reflexive anaphors in the availability of statue interpretations in the Madame Tussaud context and in the availability of non-sloppy identity readings in comparative deletion constructions. Their non-Near-reflexive-like behavior of them is due to an independent reason that they have a contrastive meaning. Japanese has only one type of Pure reflexive anaphor: the affixal anaphors *zi-* and *ziko-*. They induce Pure reflexivity. There seem to be three types of reflexivity induced by three types of anaphor, but I have shown that the three types of reflexivity are induced by the two types of anaphor, giving the data in Japanese. A language has two, not three, types of anaphor: namely, only Pure reflexive anaphors and Near reflexive anaphors.

The chart (249) is the summary of the observation so far. We have seen in Chapter 2 that the six items have the reflexive usage. By applying the two diagnostics utilized in Lidz (2001a,b) and the distributive/collective reading availability test I proposed in this section, the items are further categorized into two types, as seen in (249a). The + mark in the chart indicates that the items with the mark yield Near reflexive readings, but they allow only Pure identity readings because of their special function. (249b) and (249c) show that some of the items have the empathic and logophoric usages as well: recall

that only empathic items can be replaced with pronouns and that the *de se* interpretation requirement is the property that logophoric items have. Note that being a Near reflexive anaphor does not correspond to the property that the item has the empathic and logophoric usages.

(249)  Properties of Japanese anaphors

|   |   | zibun | zibun-zisin | zibun-zísin | zi-/ziko- | zisin | mizukara |
|---|---|---|---|---|---|---|---|
| a. | allow Near ref. reading? | yes | yes | yes$^+$ | no | yes | yes$^+$ |
|   | require Pure ref. reading? | no | no | no | yes | no | no |
| b. | replaceable w/pronoun? | yes | no | yes | no | yes | yes |
| c. | require *de se* reading? | yes | no | yes | no | yes | yes |

## 4.2   Parametric variation among languages

My second proposal is that there is parametric variation among languages with respect to the classification of anaphors into the Pure reflexive and Near reflexive types, as given in (250a) and (250b).

(250) Anaphor Classification Proposal

|   | type | form | languages |
|---|------|------|-----------|
| a. | Pure reflexive | morphologically simplex | Dutch, Kannada, |
|   | Near reflexive | morphologically complex | Malayalam, Norwegian etc. |
| b. | Pure reflexive | affixal | Russian, Japanese, |
|   | Near reflexive | non-affixal | Chinese, Spanish etc. |

This proposal is based on the prediction made in Lidz's Condition R analysis given in (251) that repeats (183).

(251) If an anaphor can be bound by a coargument (in the absence of lexical reflexivity), then that anaphor is a Near-reflexive.                                    (Lidz, 2001a, 237)

Although Lidz refers to only Near reflexive anaphors, we can paraphrase (251) as 'an anaphor is bound by a coargument in the presence of lexical reflexivity, then that anaphor is Pure-reflexive.' Lexical reflexivity is the key in distinguish Pure reflexive anaphors from Near reflexive ones.

I propose that how lexical reflexivity marking occurs in a language decides which way of the reflexive classification in (250a) and (250b) the language takes. As we have reviewed in Section 3.2.2, there are several ways to mark lexical reflexivity: a verb is marked as reflexive in the lexicon (e.g. Dutch), a verb takes a reflexive marker (e.g. Kannada) and a verb takes a Pure reflexive anaphor that simultaneously marks semantic reflexivity (e.g. Russian) etc. Semantic reflexivity is, on the other hand, marked on verbs by

a Pure reflexive anaphor in all languages. In languages in which lexical reflexivity marking occurs independently from semantic reflexivity marking, like Dutch and Kannada, the morphological complexity of anaphors distinguishes the two types of reflexive anaphor: morphologically simplex anaphors are Pure reflexive anaphors (e.g. *zich* 'self' in Dutch in (252a)), while complex ones are Near reflexive anaphors (*zichzelf* 'self-self' in (252b)). I show the data of languages that distinguish anaphors in this way in Section 4.2.1.

(252)  a.  Ringo scheert zich                                                                    (= (173))

        Ringo shaves  self

        'Ringo shaves himself.' (*zich* = Ringo /*statue)

    b.  Ringo scheert zichzelf

        Ringo shaves  selfself

        'Ringo shaves himself.' (*zichzelf* = Ringo / statue)

On the other hand, in languages in which lexical reflexivity marking and semantic reflexivity marking occur simultaneously like Russian, Chinese and Japanese, the morphological complexity of anaphor does not distinguish anaphors into types: for example, as we have seen, in Russian, the morphologically simplex anaphor *sebja* 'self' can refer to a statue in (181b), repeated below as (253b). In these languages, instead, affixal anaphors are Pure reflexive anaphors and non-affixal anaphors are Near reflexive anaphors. I show the data of languages that take this way of anaphor classification in Section 4.2.2.

(253)  a.  Yeltsin zastrelil-sja.                                                               (= (181))

        Yeltsin shot-self

        'Yeltsin shot himself.' (*-sja* = Yeltsin, *statue)

b. Yeltsin zastrelil sebja.

Yeltsin shot    self

'Yeltsin shot himself.' (*sebja* = Yeltsin, statue)

I discuss why Pure reflexive anaphors are morphologically simplex, not complex, in some languages and affixal, not non-affixal, in other languages in Section 4.2.3.

## 4.2.1   Morphologically simplex and complex anaphors

In languages like Dutch and Kannada, lexical reflexivity marking and semantic reflexivity marking occur separately. Under the proposed classification in (250a), in these languages, the morphological complexity of an anaphor distinguishes Pure and Near reflexive anaphors: morphologically simplex anaphors are Pure reflexive anaphors, while complex ones are Near reflexive anaphors. Let us see that the classification in (250a) is borne out in Dutch, Norwegian, Danish, Kannada and Malayalam.

In Dutch, lexical reflexivity is marked on verbs in the lexicon. According to (250a), in this language, the morphologically simplex anaphor *zich* is a Pure reflexive anaphor and the complex one *zichzelf* is a Near reflexive anaphor. This classification is consistent with the result of the (un)availability of statue interpretations in (254): the Pure reflexive anaphor *zich* refers to its antecedent itself only, while the Near reflexive anaphor *zichzelf* can refer to a statue of its antecedent as well as its antecedent.

(254)  a. Ringo scheert zich                                      [Dutch]

Ringo shaves  self

'Ringo shaves himself.' (*zich* =Ringo / *statue)

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b. Ringo scheert zichzelf

Ringo shaves  selfself

'Ringo shaves himself.' (*zichzelf* =Ringo / statue)

The prediction (251) that is made by Condition R is also consistent. The verb *scheert* 'shaves' in (254a) is lexically reflexive (or it is used as a reflexive verb), and the anaphor *zich* is bound by its coargument Ringo in the presence of lexical reflexivity. This anaphor is a Pure reflexive anaphor. In contrast, the verb in (254b) lacks lexical reflexivity (or it is used as a non-reflexive verb). The anaphor *zichzelf* is categorized as a Near reflexive anaphor that is bound by its coargument in the absence of lexical reflexivity.

The result of the (un)availability of non-sloppy identity readings in the comparative deletion construction in (255) also fits with the anaphor type classification above. If the Pure reflexive anaphor *zich* is used, only the sloppy identity reading is induced, while if the Near reflexive anaphor *zichzelf* is used, the non-sloppy identity reading is also available.

(255) a. Zij verdedigde zich beter  dan  Peter

she defended    self  better than Peter

'She defended herself better than Peter defended himself' (sloppy identity)

∗'She defended herself better than Peter defended her' (non-sloppy identity)

b. Zij verdedigde zichzelf beter  dan  Peter

she defended    selfself  better than Peter

'She defended herself better than Peter defended himself' (sloppy)

'She defended herself better than Peter defended her' (non-sloppy identity)

In Norwegian, the reflexivity marking occurs in the same way as Dutch. According to (250a), the morphologically simplex anaphor *seg* 'self' is a Pure reflexive anaphor and the complex *seg selv* 'selfself' is a Near reflexive anaphor. In the Madame Tussaud context in (256), in fact, only the morphologically complex-Near reflexive anaphor is allowed.

(256)  Per oppdaget   Kari like ved  {seg selv /*seg } påbildet          [Norwegian]

      Per discovered Kari close by self self   self      in picture-Def

      'Per discovered Kari close by himself in the picture.'          (Lødrup, 2007, (20))

(257) also supports this claim: in comparative deletion constructions, if the morphologically simplex-Pure reflexive anaphor is used, only the sloppy identity reading is available.

(257)  Bestefar       vasket   seg bedre enn  Lillebror.

     Grandfather washed self better than Little-brother

     'Grandfather washed himself better than Little brother.'

                                  (Lødrup, 2007, Footnote 12)

Danish marks lexical reflexivity and semantic reflexivity in the same way as Dutch and Norwegian. According to (250a), the morphologically simplex anaphor *sig* 'self' in (258a) is a Pure reflexive anaphor and the complex *sig selv* 'selfself' in (258b) is a Near reflexive anaphor. In fact, in the Madame Tussaud context, in (258), *sig* cannot refer to a statue of its antecedent, while *sig selv* can.

(258)  a. Bill Clinton barberede sig.                          [Danish]

      Bill Clinton shaved      self

      'Bill Clinton shaved himself.' (*sig* = Bill, *statue)

b. Bill Clinton barberede sig selv.

Bill Clinton shaved     self self

'Bill Clinton shaved himself.' (*sig selv* = Bill, statue)

(Bergeton, 2004, 19, (25))

The Pure reflexive anaphor *sig* allows only the sloppy identity reading, while the Near reflexive anaphor *sig selv* allows the non-sloppy identity reading as well, in the VP-ellipsis construction in (259).[11]

(259) a. Peter vaskede sig   og   det gjorde Hans også.

    Peter washed self and it   did    Hans also

    'Peter$_i$ washed himself$_i$ and Hans washed himself.' (sloppy)

    * 'Peter$_i$ washed himself$_i$ and Hans washed him$_i$.' (non-sloppy)

b. Peter vaskede sig selv og   det gjorde Hans også.

    Peter washed self self and it   did    Hans also

    'Peter$_i$ washed himself$_i$ and Hans washed himself.' (sloppy)

    'Peter$_i$ washed himself$_i$ and Hans washed him$_i$.' (non-sloppy)

(Bergeton, 2004, 171, (86) with modification)

Also, the two types of anaphor show different availabilities of distributive and collective readings when they occur with plural subjects. *Sig* with a plural subject allows either

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[11]I fail to test if the two forms of Danish anaphor yield a non-sloppy identity reading in comparative deletion constructions. However, Bergeton (2004) uses the VP-ellipsis test in (259) to show that *sig* and *sig selv* have different semantics. I believe that this test is available to distinguish anaphor into the Pure reflexive ana Near reflexive types.

the distributive reading: each soldier defended himself, or the collective reading: they defended their group. In contrast, *sig selv* allows only the distributive reading.

(260)  a.  Soldaterne   forsvarede sig.

soldiers-the defended   self

'The soldiers defended themselves.' (distributive / collective)

b.  Soldaterne   forsvarede sig selv.

soldiers-the defended   self-self

'The soldiers defended themselves.' (distributive / *collective)

(Bergeton, 2004, 173, (90))

The behavior of *sig* and *sig selv* in (260) is consistent with the generalization in Section 4.1.1 that Pure reflexive anaphors can yield both distributive and collective readings, while Near reflexive anaphors induce only the former.

In Kannada, lexical reflexivity is marked by a verbal reflexive marker *-koND* (past tense form: *-koLL* in present tense). The morphologically simplex anaphor *tann* 'self' is a Pure reflexive anaphor while the complex *tan-tanne* 'self-self' is a Near reflexive anaphor, according to (250a). In (261a), in the Madame Tussaud context, *tann* cannot refer to a statue, while *tan-tanne* can.

(261)  a.  Hari tann-annu hoDe-du-koND-a                                    [Kannada]

Hari self-Acc   hit-PR-Ref.Past-3SM

'Hari$_i$ hit himself$_i$.' (*tann* = Hari, *statue)

b. Hari tann-annu-taane hoDe-d-a

Hari self-Acc-self      hit-Past-3SM

'Hari$_i$ hit himself$_i$.' (*tannu-tanne* = Hari, statue)      (Lidz, 2001a, (12b,c))

In the comparative deletion construction in (262), *tann* induces only the sloppy identity reading as in (262a), while *tan-tanne* allows both the sloppy and non-sloppy identity readings as in (262b). The results here are consistent with the classification above.

(262)   a.   Rashmi Siita-ginta cheenage tann-annu rakshisi-koLL-utt-aaLe

Rashmi Sita-Comp better     self-Acc   defend-Ref-Pre-3sf

'Rashmi defends herself better than Sita defends herself.' (sloppy)

∗'Rashmi defends herself better than Sita defends Rashmi.' (non-sloppy)

b.   Rashmi Siita-ginta cheenage tann-annu-tanne rakshisi-utt-aaLe

Rashmi Sita-Comp better      self-Acc-self     defend-Pre-3sf

'Rashmi defends herself better than Sita defends herself.' (sloppy)

'Rashmi defends herself better than Sita defends Rashmi.' (non-sloppy)

(Lidz, 2001a, (14))

The prediction in (251) also gives the same classification: *tann* in (261a) is bound by its coargument Hari in the presence of lexical reflexivity, so this is a Pure reflexive anaphor. On the other hand, in (261b), *tan-tanne* is bound by the same argument without lexical reflexivity. This anaphor is categorized as a Near reflexive anaphor.

In Malayalam, verbs lack lexical reflexivity. Lexical reflexivity marking and semantic reflexivity marking do not occur simultaneously. I, thus, regard this language as

a language that selects the way in (250a). According to that, the morphologically simplex anaphor *tan* 'self' is a Pure reflexive anaphor and the complex anaphor *tan-tannu* 'self-self' is a Near reflexive anaphor.

(263)  a. *Raaman tan-ne     kshauram ceytu                              [Malayalam]

        Raaman self-Acc shaving     did

        'Raaman shaved.'

    b.  Raaman tan-ne-tanne  kshauram ceytu

        Raaman self-Acc-self shaving     did

        'Raaman shaved himself.' (*tan-tanne* = Raaman, statue)      (Lidz, 2001a, (32))

We cannot tell if *tan* 'self' is a Pure reflexive anaphor based only on the result in this diagnostic, because the item does not show a Pure-reflexive-like behavior. Verbs in this language lack lexical reflexivity, so Condition R ((176), see Section 3.2: Lidz (1996, 2001a,b)) excludes coargument binding of *tan* in (263a). However, Lidz (1996) shows that this item is a Pure reflexive anaphor: this anaphor does not allow statue interpretations when it is bound across clauses. The other anaphor *tan-tannu* is a Near reflexive anaphor: in (263b), it can refer to a statue of its antecedent Raaman and it is bound by its coargument in the lack of lexical reflexivity. So, in this language as well, the morphological complexity of anaphor corresponds to the type of anaphor.

The observations in this subsection show that the proposed classification in (250a) holds in languages in which lexical reflexivity marking and semantic reflexivity marking occur independently. In these languages, anaphors are classified based on their morphological complexity: morphologically simplex anaphors are Pure reflexive anaphors and

complex ones are Near reflexive anaphors.

## 4.2.2  Affixal and non-affixal anaphors

In languages like Japanese and Russian, semantic reflexivity marking and lexical reflexivity marking occur simultaneously. Semantic reflexive markers, in other words, Pure reflexive anaphors, mark lexical reflexivity too. These languages distinguish Pure reflexive from Near reflexive anaphors based on the affixal and non-affixal status difference of anaphor. In this subsection, I show that the classification in (250b) is true in Japanese, Russian, Korean, Chinese, Turkish, Italian, Spanish and English.

First, I briefly review the data in Japanese. Here, I focus only on the two types of anaphors: the affixal anaphor *ziko-* 'self-' and the non-affixal anaphor *zibun* 'self.'

(264)  a.  John-wa  ziko-hihan-si-ta.                                    [Japanese]

     John-Top self-criticism-do-Past

     'John criticized himself.' (*ziko-* = John, *statue)

   b.  John-wa  zibun-o  hihan-si-ta.

     John-Top self-Acc criticism-do-Past

     'John criticized himself.' (*zibun* = John, statue)

Compare the two sentences in the Madame Tussaud context. In (264a), the Near reflexive interpretation is excluded, so Condition R is operative. This means that the verb has both semantic and lexical reflexivity. In (264b), the same verb is used. In this case, however, the Near reflexive reading is available, so the condition is not operative. This shows that the verb in (264) lacks both lexical and semantic reflexivity and consequently that

the anaphor in (264a) marks both lexical reflexivity and semantic reflexivity on the verb. According to (250b), the affixal anaphor is a Pure reflexive anaphor and the non-affixal one is a Near reflexive anaphor in Japanese.

The classification above is consistent with the Condition R prediction in (251): *ziko-* is categorized as a Pure reflexive anaphor, as it is bound by its coargument John in the presence of lexical reflexivity in (264a). In contrast, *zibun* is bound by its coargument in the absence of lexical reflexivity in (264b), so this anaphor is categorized as a Near reflexive anaphor. Also note that the above categorization is coherent with the classification in (212) that I proposed based on my observations.[12]

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[12]Interestingly, it seems that the types of reciprocal anaphors in Japanese are also categorized based on the affixal and non-affixal difference among anaphors. This language has three types of reciprocal anaphors: the affixal form *sougo-* and the non-affixal forms *sougo* and *otagai*, all mean 'one another.' In the Madame Tussaud context, the affixal *sougo-* cannot refer to a statue of its antecedent in (i), while the non-affixal reciprocal anaphors *sougo* in (ii) and *otagai* in (iii) can. In the availability of non-sloppy identity reading test as well, they behave differently, though I do not include the data here.

(i) Ringo to  John -wa  sougo-hihan-si-ta.

Ringo and John -Top one.another-criticism-do-Past

'Ringo criticized John and John criticized Ringo.'                              (actual reading)

*'Ringo criticized the statue of John and John criticized the statue of Ringo.'        (*statue reading)

(ii) Ringo to  John -wa  sougo-o        hihan-si-ta.

Ringo and John -Top one another-Acc criticism-do-Past

'Ringo criticized John and John criticized Ringo.'                              (actual reading)

'Ringo criticized the statue of John and John criticized the statue of Ringo.'        (statue reading)

Next, let us consider Russian. In the Madame Tussaud context, Condition R is operative in (265a), while it is not in (265b). The verb in the latter case lacks both semantic and lexical reflexivity, and the same verb is used in the former case. In the former case, however, Condition R is satisfied. This means that the affixal anaphor *-sja* in (265a) marks both types of reflexivity. This affixal anaphor is the Pure reflexive anaphor. The non-affixal anaphor *sebja* is, on the other hand, the Near reflexive anaphor.

(265) a. Yeltsin zastrelil-sja.                                    [Russian]

     Yeltsin shot-self

    'Yeltsin shot himself.' (*-sja* = Yeltsin, *statue)

    b. Yeltsin zastrelil sebja.

     Yeltsin shot    self

    'Yeltsin shot himself.' (*sebja* = Yeltsin, statue)                (Lidz, 2001a, (26))

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(iii) Ringo to John -wa otagai-o     hihan-si-ta.

Ringo and John -Top one another-Acc criticism-do-Past

'Ringo criticized John and John criticized Ringo.'                (actual reading)

'Ringo criticized the statue of John and John criticized the statue of Ringo.'        (statue reading)

I still need more evidence before I conclude that there are 'Pure reciprocal anaphors' and 'Near reciprocal anaphors' in languages and that the affixal *sougo-* is a Pure reciprocal and the non-affixal *sougo* and *otagai* are Near reciprocals in Japanese. Here, I just show that the affixal and non-affixal difference corresponds to semantic difference of items in both reflexive and reciprocal anaphors in Japanese. It is intriguing to see how morphological difference and semantic difference of anaphors relate in Japanese, or more generally, in languages. I would leave this issue for future research. I appreciate Keiko Murasugi, John Whitman and Hajime Hoji for pointing out the applicability of the proposed classification to reciprocals.

This classification is consistent with the result of the availability of the non-sloppy identity interpretation in the comparative deletion construction in (266).

(266) a. Ivan zashchischal-sja lachshe chem Petr

    Ivan defend-self      better   than  Peter

    'Ivan defended himself better than Peter defended himself.' (sloppy)

    *'Ivan defended himself better than Peter defended him.' (non-sloppy)

   b. Ivan zashchischal sebja lachshe chem Petr

    Ivan defend      self  better   than  Peter

    'Ivan defended himself better than Peter defended himself.' (sloppy)

    'Ivan defended himself better than Peter defended him.' (non-sloppy)

(Lidz, 2001a, (27))

Also, the Condition R prediction (251) gives the same classification: *sja-* is the Pure reflexive anaphor that is bound by its coargument in the presence of lexical reflexivity. *Sebja* is the Near reflexive anaphor that is bound by its coargument in the lack of lexical reflexivity.

Now, observe the Korean example in (267). According to (250b), the affixal anaphor *caki-* 'self' that marks both types of reflexivity is a Pure reflexive anaphor and the non-affixal anaphor *caki* 'self' is a Near reflexive anaphor.

(267) a. Chelswu-ka    caki-piphan-ha-yss-ta.                  [Korean]

    Chelswu-Nom self-criticism-do-Past-Decl

    'Chelswu criticized himself.' (*caki-* = Chelswu, *statue)

  b. Chelswu-ka  caki-lul piphan-ha-yss-ta.

   Chelswu-Nom self-Acc criticism-do-Past-Decl

   'Chelswu criticized himself.'(*caki*=Chelswu,statue) (Based on Kang, 2001, (18))

In the Madame Tussaud context, in (267a), the statue interpretation is excluded. This means that Condition R is operative and the predicate in this example has both semantic and lexical reflexivity. On the other hand, in (267b), the statue reading is allowed. Condition R does not apply, and this means that the predicate in this example lacks both semantic and lexical reflexivity. *Caki-* is the Pure reflexive anaphor that marks both lexical and semantic reflexivity. *Caki* is the Near reflexive anaphor.

The classification above is consistent with the (un)availability of non-sloppy identity readings in the comparative deletion construction.[13]

(268) a. John-nun Bill pota te silal-hakey caki-piphan-ha-yss-ta.

    John-Top Bill than more severely self-criticism-do-Past-Decl

    'John criticized himself more severely than Bill criticized himself (sloppy)

   &ast;'John criticized himself more severely than Bill criticized him.' (non-sloppy)

  b. John-nun  Bill pota te silalhakey  caki-lul piphan-ha-yss-ta.

   John-Nom Bill than more severely self-Acc criticism-do-Past-Decl

   'John criticized himself more severely than Bill criticized himself (sloppy)

   'John criticized himself more severely than Bill criticized him.' (non-sloppy)

In (268a), the affixal Pure reflexive anaphor *caki-* induces only the sloppy identity reading. The Pure reflexive anaphor functions as a variable and it always has the exact same

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[13]The data and judgement in (268) are from Sunyoung Lee.

reference as its antecedent. In contrast, the non-affixal Near reflexive anaphor *caki* in

(268b) yields either the sloppy or non-sloppy reading. The Near reflexive anaphor does

not function as a variable and it can has own index. The two sentences in (268a) and

(268b) have different semantic structures and two readings are available.

Korean has another type of non-affixal anaphor: *casin* 'self.' This item is classified

as a Near reflexive anaphor, according to (250b), because it is non-affixal. This anaphor,

however, does not behave like a Near reflexive anaphor, unlike *caki* in (267b). For exam-

ple, in the Madame Tussaud context, the acceptability under a statue reading is low as in

(269).

(269) ?Chelswu-ka     casin-ul  phokphl-hayssta.

    Chelswu-Nom self-Acc blew up

   'Chleswu blew himself up.' (*casin* = Chelswu /?statue)    (Kang, 2001, (18b))

Although I do not dwell further into the discussion on *caki* and *casin* for the purposes of

this thesis, I tentatively regard *casin* in (269) as a special case of Near reflexive anaphor, as

in the case of the Chinese anaphor *ziji benshen* 'self-Self' (Liu, 2003), compared to *caki*

in (267b). In addition to the (un)availability of Near reflexive reading, the two anaphors

show several different properties. Here I mention only some of the different properties

of the two types of anaphor: (a) *caki* has a person restriction on its antecedent and only

third-person can be its antecedent, while *casin* does not have such a restriction, (b) both

*caki* and *casin* allow long-distance binding, but 'blocking effects' are observed only with

*casin*, not with *caki* (Cole et al., 1990), (c) preferred readings for *caki* are long-distance

binding, while *casin* prefers local binding (Park, 1988, Kim, 1993, Kang, 2001), (d) *caki*

does not felicitously occur with 'physical activity verbs' (in Yoon's (1989) term) such as *hit*, while *casin* does as in (270).

(270) John-un   {??caki / casin}-lul ttayli-ess-ta.

   John-Top {self / self}-Acc     hit-Past-Decl

   'John hit himself.'

I assume that because the Near reflexive anaphor *casin* would have a special status, it does not behave like a Near reflexive anaphor. Consequently, I conclude that the affixal and non-affixal difference of anaphor corresponds to the Pure and Near reflexive anaphor distinction in Korean too.

   I have one more thing to mention. We have seen in (230b) that *caki* induces only a distributive interpretation when it occurs with a plural subject. This anaphor is categorized as a Near reflexive anaphor above. This classification is consistent with the generalization in Chapter 4.1.1 that, with a plural subject, Near reflexive anaphors induce only a distributive reading, whereas Pure reflexive ones allow a collective reading as well.

   Chinese has two types of affixal anaphors *zi-* and *ziwo-* 'self' as in (271) and (272), respectively.[14]

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[14]Although Liu (2003, Footnote 30) says that the affixal reflexive *zi-* 'self' is rarely used in contemporary Chinese, Huang (2001, Footnote 7) mentions that *zi-* and *ziwo-* 'self' can easily occur as verbal prefixes. Also, according to Wing Yee Chow (p.c.), *zi-/ziwo-*attaching productively occurs, especially in Cantonese Chinese (less productive in Mandarin Chinese). In (272), it is easier for speakers to imagine a Madame Tussaud context if the verb is *jit* 'tickle' or *mo* 'touch,' instead of *piping* 'criticize.' However, I use the verb *piping* 'criticize' on purpose. For, the complex verb *ziwo-piping* 'self-criticize' is allowed in both Mandarin and Cantonese, but the complex verbs *zi-jit* 'self-tickle' and *zi-mo* 'self-touch' are allowed only in Cantonese.

(271) Xiang-Yu zuihou zi-jin-le.                                      [Chinese]

    Xiang-Yu finally  self-killing-Asp

    'Xiang-Yu finally killed himself'                    (Liu, 2003, Footnote 30 (ii))

(272) Lisi zai ziwo-piping

    Lisi at   self-criticize

    'Lisi criticized himself.' (*ziwo-* = Lisi, *statue)

Here, let us compare (272) that has the affixal *ziwo-* to (273) that has the non-affixal anaphor *ziji*. The two examples use the same verb *piping* 'criticize.'

(273) Lisi zai piping   ziji.

    Lisi at   criticize self

    'Lisi criticized himself.' (*ziji* = Lisi, statue)

In the Madame Tussaud context, in (272), the statue interpretation is not available so Condition R is operative here. On the other hand, in (273), that interpretation is available and Condition R is not operative. What this contrast shows is that the verb *piping* 'criticize' itself lack semantic and lexical reflexivity, but *ziwo-* marks both types of reflexivity. The affixal anaphor *ziwo-* is the Pure reflexive anaphor, as stated by (250b). The prediction in (251) also categorizes this anaphor as a Pure reflexive anaphor that is bound by the coargument *Lisi* in the presence of lexical reflexivity. The non-affixal anaphor *ziji* is a Near reflexive anaphor, according to both (250b) and (251).

Recall (187b,c), repeated here as (274a,b), in which the other two types of non-affixal anaphors in Chinese occur: *ta-ziji* 'him-self' and *ziji-benshen* 'self-Self.' According to the classification in (250b), these anaphors are Near reflexive anaphors.

(274) a. Jiang Jie-Shi henhen-de da-le ta-ziji yi-xia.    (= (187b,c))

   Jiang Jie-Shi furiously hit-Asp him-self one-Cl

   'Jiang Jie-Shi hit himself furiously.' (*ta-ziji* = JJS, statue)

  b. Jiang Jie-Shi henhen-de da-le ziji-benshen yi-xia.

   Jiang Jie-Shi furiously hit-Asp self-Self  one-Cl

   'Jiang Jie-Shi hit himself furiously.' (*ziji-benshen* = JJS, ∗statue)

In the Madame Tussaud context, *ta-ziji* 'him-self' in (274a) can refer to a statue of its antecedent, though *ziji-benshen* 'self-Self' in (274b) refers to only the antecedent itself. This result looks problematic for our classification, but this is not true. As we have reviewed in Section 3.3, Liu (2003) explains the non-Near-reflexive-anaphor-like behavior of *ziji-benshen* in (274b) by claiming that what is induced here is Pure identity reading as a consequence of the semantic composition of this anaphor: the Near reflexive function of *ziji*, the focus function of *-benshen* and the operator status of the anaphor. I have proposed in Section 4.1 that Pure identity is a subcase of Near reflexivity and what induces Pure identity is a Near reflexive anaphor. Then, the anaphor *ziji-benshen* in (274b) is also a Near reflexive anaphor.

Thus, I conclude that, from the data in (272)–(274), in Chinese, the affixal anaphor *ziwo-* is the Pure reflexive anaphor, and the three non-affixal anaphors *ziji*, *ta-ziji* and *ziji-benshen* are the Near reflexive anaphors, in accordance with (250b). Recall that *ziji* with a plural subject induces only a distributive interpretation as we have seen in (230a) and (231). Here again, this anaphor is a Near reflexive anaphor, consistent with the generalization in Chapter 4.1.1 that Near reflexive anaphors induce only a distributive reading.

Turkish has the affixal and non-affixal forms of anaphor: *-in* '-self' and *kendi* 'self' (Kornfilt, 2001). The affixal reflexive changes its form when it is incorporated in verbs, as in *yika-n* 'wash oneself' in (275a) and *giyi-n* 'dress oneself' in (276). The non-affixal reflexive is inflected depending on person of the pronoun part: for example, 'myself' is *kendim*, 'yourself' is *kendin* and 'himself' is *kendi*. According to (250b), *-in* is the Pure reflexive anaphor and *kendi* is the Near reflexive anaphor. Let us see if this classification is borne out. In the Madame Tussaud context diagnostic in (275), when the affixal anaphor *-in* is used, the statue reading is not available, while if the non-affixal *kendi* is used, the reading is available.

(275)  a.  Ahmet yika-n-di                                    [Turkish]

      Ahmet wash-self-Past

      'Ahmet washed himself.' (*-ni* = Ahmet, *statue)

    b.  Ahmet kendi-ni yikadi

      Ahmet self-Acc wash-Past

      'Ahmet washed himself.' (*kendi* = Ahmet, statue)

In (276), the non-sloppy identity interpretation availability test sentence, the affixal anaphor does not allow the non-sloppy identity reading.[15]

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[15]To express 'dress oneself' in Turkish, the verb *giyi* 'dress' is used incorporating the affixal reflexive *-ni* as *giyi-n* as in (276), not taking the non-affixal anaphor *kendi*. So, the counterpart of (276) with the non-affixal anaphor is not available. The data and judgement here are from Ilknur Oded.

(276) Reagan hemsire-si-nden    daha hizli giyi-n-iyor

    Reagan nurse-3rd Poss-Abl more fast  get.dressed-Prog.3SG

    'Reagan dresses himself faster than his nurse dresses herself.' (sloppy)

   ∗'Reagan dresses himself faster than his nurse dresses him.' (non-sloppy)

The results show that the affixal anaphor *-in* is the Pure reflexive anaphor and the non-affixal anaphor *kendi* is the Pure reflexive anaphor.

    Italian also has two types of anaphor: affixal anaphor *si-* 'self' and non-affixal *se stesso* 'self-same.'[16] The former one is the Pure reflexive anaphor and the latter one is the Near reflexive anaphor under the classification in (250b). In fact, in (277), in the Madame Tussaud context, *si-* cannot refer to a statue, while *se stesso* can.[17] The result fits with the

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[16]Italian has another type of non-affixal reflexive anaphor *sé*, that is classified as a Near reflexive anaphor, according to (250b). This anaphor, contrary to the prediction, does not yield a Near reflexive reading as in (i). The result here is apparently problematic for my proposal. I, however, claim that this anaphor is exempt from my discussion because this item does not occur in a reflexive relation defined in Chapter 1. *Sé* always occurs as an argument of prepositions as in (i). This item and its antecedent are not arguments of the same predicate.

(i) Ringo cadde su di sé

    Ringo fell    on of self
    'Ringo fell on himself/*his statue.'                                    (Giorgi, 2007, (5))

[17]Judgements seem to vary: although Burzio (1994) and Giorgi (2007) claim that *si-* cannot refer to a statue, Reuland (2011b) reports that statue interpretations are possible with *si-* (Castella, 2010).

In French as well, judgements about statue interpretation availability vary. This language has two forms of anaphor: affixal anaphor *se-* 'self-' and non-affixal anaphor *se...lui-même* 'self-self.' Rooryck and Van-den Wyngaerd (1999), giving the data (i), mention that 'the complex anaphor (they call *se...lui-même* 'com-

classification.

(277)  a.  Gianni si lava.                                    [Italian]

   Gianni self-washes

   'Gianni washes himself.' (*si-* = Gianni, *statue)

   b.  Gianni lava    se stesso.

   Gianni washes self-same

   'Gianni washes himself.' (*se stesso* = Gianni, statue)    (Giorgi, 2007, (15)(18))

Note that not all languages have both affixal and non-affixal forms of anaphors. Some languages that have only affixal form of anaphor. Anaphors in these languages are predicted to be Pure reflexive anaphors according to (250b). This is borne out: Spanish, for example, has only the affixal form of anaphor *se-* 'self-.'[18] This anaphor marks both semantic and lexical reflexivity. Compare (278a) and (278b).

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plex anaphor' [MK]) is preferred in Madame Tussaud context' (622). Labella (2008), in contrast, claims that *se-* without the *lui-même* part also allows a statue interpretation.

(i)  Dorian Gray se-voyait ?*(lui-même) dans la  peinture tel qu' il aurait  dû   être.      [French]

   Dorian Gray self-saw    (himself)   in   the painting as    he should have been

   'Dorian Gray saw himself in the painting as he should have been.'

[18]Spanish has an expression *a sí mismo/a* that literally means 'he-same, her-same,' as in (i). Its composition looks like the Italian anaphor *se stesso* in (277b). The Spanish phrases, however, cannot occur by themselves and obligatorily require the *se* clitic. The Italian *se stesso*, in contrast, does not occur with the clitic reflexive as in (277b). I, thus, regard *se stesso* in Italian as an independent non-affixal anaphor, but I do not regard *sí mismo/a* in Spanish as an anaphor and exclude the latter expression from my discussion. Also, whether a Near reflexive reading is allowed in (i) is subtle: judgements are not stable. I thank Tonia Bleam, Leticia Pablos and Juan Uriagereka for providing me the Spanish data and judgements.

(278)  a.  Miguel odiaba patatas.                                                                    [Spanish]

        Miguel hated   potatoes

        'Miguel hated potatoes.'

    b.  Miguel se-odiaba

       Miguel self-hated

       'Miguel hated himself.'                                     (Shimada, 2006, 58)

In (278a), the verb *odiaba* 'hated' is used as a transitive verb, taking the non-reflexive object argument *patatas* 'potatoes.' On the other hand, in (278b), the verb is used as a reflexive verb taking the reflexive element *se-*. Lexical reflexivity and semantic reflexivity are marked simultaneously by this element. Thus, I conclude that Spanish takes the way in (250b). According to the classification there, *se-* is a Pure reflexive anaphor. This anaphor, in fact, behaves as a Pure reflexive anaphor: in the Madame Tussaud context, in (279), *se-* never refers to a statue of its antecedent. In the comparative deletion construction in (280), only the sloppy identity reading is available.

(279) El zorro    se-lavó.

    The zorro self-washed

    'Zorro washed himself.' (*se-* = Zorro, *statue)                    (Shimada, 2006, 60)

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(i)  El zorro   se   lavó     a sí mismo.                                              [Spanish]

    The zorro Ref washed himself

    'Zorro washed himself.' (*a sí mismo* = Zorro / ?statue.)

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(280) Pablo se-lava      mejor que  Miguel.

   Pablo self-washes better than Miguel

   'Pablo washes himself better than Miguel washes himself.' (sloppy)

   *'Pablo washes himself better than Miguel washes him.' (non-sloppy)

(Based on Shimada (2006, 61))

The proposed classification in (250b) holds in Spanish that has only the affixal form of anaphor.

There are languages that have only anaphors in non-affixal forms. English has only the non-affixal form that consists of a pronoun and -*self* such as *himself* and *herself*. One might say that English has the affixal form of anaphor: *self-*, as in (281). This form is, however, not often used: incorporating *self-* to verbs is not productive, compared to the productivity of incorporating *self-* to adjectives such as *self-destroying* and *self-explanatory* and to nouns such as *self-delusion* and *self-portrait*.

(281)  a.  John were self-promoting.

   b.  By self-inflicting these wounds, they tried to win our sympathy.

(Huang, 2001, (31a))

I suspect that *self-* is not an affixal anaphor: the verb *self-promote* in (281a) can occur with an object argument, as in (282).

(282) John knows how to self-promote his music.

The behavior of *self-* in this example looks similar to the one of the Japanese *zi*-affix in verbs like *zi-man-suru* 'boast about oneself' in (129a) which I claim as an adjunct. This

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affix would not be of the same type as *zi*-affix in verbs like *zi-satu-suru* 'kill oneself' in (115a) in which the affix functions as an argument (reflexive anaphor).

In fact, when we consider the acceptability of statue interpretations of (281a,b), judgements vary: some speakers allow statue readings, while others exclude them. I, thus, assume that English *self-* is not of the affixal type of anaphor and that this language has only the non-affixal form.

According to (250b), the non-affixal anaphor *himself* in English is a Near reflexive anaphor. This categorization is borne out: in the Madame Tussaud context, in (283), *himself* can refer to a statue of its antecedent. In the comparative deletion construction, in (284), both the sloppy and non-sloppy identity interpretations are available.[19] The classification of *himself* as a Near reflexive anaphor is consistent with the prediction in (251): the verb *dress* in (283) lacks both semantic and lexical reflexivity as Condition R is operative, but the anaphor is bound by its coargument.

(283)  Reagan dressed himself in the museum. (*himself* = Reagan, statue)

(Lidz, 2001a, (22b))

(284)  Reagan dresses himself faster than his nurse does.

Reagan dresses himself faster than his nurse dresses herself. (sloppy)

Reagan dresses himself faster than his nurse dresses him. (non-sloppy)

(Lidz, 2001a, (23b))

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[19]Kennedy and Lidz (2001) would explain why the two readings are allowed in this construction: see the review of their analysis on Page 160.

The observations in this subsection show that, in languages like Japanese, Russian and Turkish, Pure reflexive anaphors are in the form of affix and Near reflexive ones are non-affixal, as stated in (250b).

### 4.2.3   Among variations

Here, I consider why Pure reflexive anaphors are morphologically simplex, not complex, in some languages and why they are affixal, not non-affixal, in other languages. We have seen that in the Japanese type of languages, Pure reflexive anaphors are affixes that morphologically mark semantic reflexivity and lexical reflexivity simultaneously. We are, however, not sure why Pure reflexive anaphors in the Dutch type languages are in morphologically simplex forms.

As a first step, I consider English again. I have concluded in Section 4.2.2 that English is a language that separates anaphors based on the affixal and non-affixal differences and that this language has only the Near reflexive anaphor like *himself* and *herself*. That English takes the way of classification in (250b) means that semantic reflexivity marking and lexical reflexivity marking occur simultaneously in this language. However, it is not clear when and how semantic reflexivity marking occurs because this language apparently does not have a Pure reflexive anaphor that marks semantic reflexivity. The marking might occur simultaneously with lexical reflexivity marking, but it might occur separately.[20] I claim that, in English, the two types of reflexivity marking occur simul-

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[20]We have seen on page 188 that Malayalam has the Near reflexive anaphor *tan-tannu* 'self-self' but it is an open question whether this language has a Pure reflexive anaphor. Verbs in this language lack lexical reflexivity, so semantic reflexivity marking and lexical reflexivity marking cannot occur simultaneously.

taneously. For, if English had a way to mark lexical reflexivity that is independent from semantic reflexivity, then that case would be excluded by Condition R ((176): Lidz, 1996, 2001a,b) that says if a predicate is lexically reflexive, it must be semantically reflexive too. Let me explain my claim, considering more English data.

English has lexically reflexive verbs that express reflexive meanings without taking reflexive anaphors, such as *dress* (as in (285)), *wash* and *behave*. In the Madame Tussaud context, in (285), only the reading in which Reagan did a self-dressing action is allowed, and the Near reflexive interpretation: Reagan dressed a statue that depicts him, is not available. How is Pure reflexivity here induced?

(285)  Reagan dressed in the museum. (actual reading / *statue reading)

(Lidz, 2001a, (22a))

One possible explanation for this is to assume that these verbs in English lexically have lexical reflexivity and semantic reflexivity. That is, Pure reflexivity is due to the meaning of the verbs themselves. In fact, it has been assumed that the verb *dress* that is used as an intransitive verb as in (285) has different semantics from the apparently same verb *dress* that is used as a transitive verb as in (283). Compare (286a) and (286b). The verb in (286a) has only one argument, while the one in (286b) has two arguments.

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Thus, this language is categorized as a language that separates the anaphor types based on the morphological complexity of anaphors. The morphologically complex anaphor in this language, in fact, behaves as a Near reflexive anaphor, in accordance with (250a).

(286) a. John dressed.

b. John dressed himself.

What property do morphologically simplex anaphors and affixal anaphors (and possibly covert affixal anaphors) share? To put it the other way around, why are Pure reflexive anaphors simplex forms, not complex forms, in some languages and affixal forms, not non-affixal forms, in other languages, depending on the variation? We note that, in a language regardless of the variation, 'simpler forms' are Pure reflexive anaphors. Then, our question is how complexity relates to classification of anaphor. In languages in which Near reflexive anaphors are morphologically complex forms, the additional meanings that only Near reflexive anaphors can induce would be due to the morphologically additional parts: for example, in Dutch that has *zich* and *zich zelf*, the *-zelf* part yields additional meanings that *zich* does not yield. However, in languages in which Near reflexive anaphors are non-affixal forms, the same account cannot be used. Reinhart and Reuland (1993) also attribute different distributions of multiple forms of anaphor in a language to complexity of anaphor, as I have reviewed in Section 3.1.[21] They also do not explain why complexity is important in distinguishing types of anaphors. Why morphologically complex anaphors have the reflexivizing function is not discussed. The relation between complexity of anaphor and the types of anaphor is very important, but unfortunately, I do not have an explanation for that. This issue should be worked out, and I leave this for future research.

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[21]Recall that Burzio (1994) that we reviewed in Section 3.2 also attributes the classification of anaphor to the complexity of anaphor, using the term 'weak anaphor' and 'strong anaphor.'

Apart from complexity of anaphor, I would like to point out the relation between stressability and the types of anaphor. It is not universal, but there is a tendency that Pure reflexive anaphors cannot carry stress.[22] The Dutch example in (287) shows that while the morphologically complex-Near reflexive anaphor *zichzelf* can be stressed (as indicated in capital letters), the morphologically simplex-Pure reflexive anaphor *zich* cannot. (287a) is ill-formed when the anaphor has stress.

(287)  a. *Ringo scheert ZICH.                                          [Dutch]

      Ringo shaves  self

      'Ringo shaves himself.'


    b.  Ringo scheert ZICHZELF.

      Ringo shaves  selfself

      'Ringo shaves himself.'


In Japanese, the affixal-Pure reflexive anaphor *ziko-* cannot be stressed as in (288a), while the non-affixal-Near reflexive anaphor *zibun* can, as (288b) shows.

(288)  a. *John-wa   ZIKO-hihan-si-ta.                            [Japanese]

      John-Top self-criticism-do-Past

      'John criticized himself.'


    b.  John-wa   ZIBUN-o hihan-si-ta.

      John-Top self-Acc   criticism-do-Past

      'John criticized himself.'

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[22]I thank Norbert Hornstein for suggesting me the importance of the relation between the classification of anaphor and the stressability and for pointing out the reduced forms of anaphor in English.

Interestingly, English uses anaphors in their reduced forms, such as *'m self* as the reduced form of *himself*. Some speakers of English do not allow statue interpretations when the reduced forms are used as in (289). This form of anaphor cannot be stressed it as in (290a), contrary to the full form (un-reduced form) *himself* that can have stress as in (290b).

(289) Reagan dressed 'mself in the museum. (*'mself* = Reagan, */?statue)

(290) a. *John washed 'MSELF.

   b. John washed HIMSELF.

Stressability, however, seems not always classify anaphors into the two types. German distinguishes anaphors into the Pure reflexive and the Near reflexive types based on the morphological complexity: in (291), the morphologically simplex anaphor *sich* 'self' does not refer to a statue of its antecedent and this behaves like a Pure reflexive anaphor, while the morphologically complex anaphor *sich selbst* 'self self' can refer to a statue of its antecedent and this behavior is of Near reflexive anaphors.[23][24]

(291) Ringo rasiert {sich /sich selbst}.                                  [German]

   Ringo shave  {self / self self}

   'Ringo shaves himself.' (**sich* = statue, *sich selbst* = statue)

It is predicted that the Pure reflexive anaphor *sich* cannot be stressed. This anaphor, however, can carry stress in some environments as in (292a), though it cannot be stressed

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[23]I thank Johannes Jurka for giving me the German data and judgement.

[24]Judgement here also seems vary: some speakers allow statue interpretations of *sich* and *sich selbst* with a focus-like reading block statue readings. I thank Jeff Lidz for letting me know this.

in other environments as in (292b) (Reinhart and Reuland, 1995, 250). That *sich* can be

stressed in some positions is contrary to the tendency that Pure reflexive anaphors cannot

carry stress.

(292)  a.  Max hat    SICH.

        Max hates self

        'Max hates himself.'

    b.  Max benimmt {sich / *SICH} (gut).

        Max behaves  self              well

        'Max behaves well.'                (Reinhart and Reuland, 1995, ((35a,c))

Interestingly, the positions in which the German anaphor *sich* can carry stress are the same

positions in which Dutch uses *zichzelf*: for example, the object position of the verb that

means 'hate,' namely *hat* in German in (292a) and *haat* in Dutch in (293a). The positions

where *sich* cannot carry stress are, on the other hand, the positions in which Dutch uses

*zich*: the object position of the verb for 'behave.' Compare (292b) and (293b)

(293)  a.  Max haat  ZICHZELF.                              [Dutch]

        Max hates selfself

        'Max hates himself.'

    b.  Max gedraagt {zich / *ZICH}

        Max behaves  self

        'Max behaves.'                (Reinhart and Reuland, 1995, ((33a,c))

Also, in both languages, unstressed anaphors cannot be topicalized. As in (292b), *sich*

cannot be stressed when it is taken as the object of the verb for 'behave.' This item

cannot be topicalized, as (294a) shows. (294b) indicates that the Near reflexive anaphor *zichzelf* that can carry stress can be topicalized, while *zich* cannot be topicalized. The latter anaphor is the Pure reflexive anaphor that cannot be stressed as in (294a).[25]

(294)  a. *Sich benimmt Max gut.                                    [German]

       self  behaves  Max well

      'Himself Max behaves well.'

   b. Zichzelf/*zich wast    Max.                                    [Dutch]

      selfself / self   washes Max

      'Himself Max washes.'                   (Reinhart and Reuland, 1995, ((36),(34)))

By figuring out why the stressed *sich* in German behaves similarly with the Near reflexive anaphor *zichzelf* in Dutch and why the unstressed *sich* behaves similarly with the Pure reflexive anaphor *zich*, we might be able to see if that Pure reflexive anaphors cannot carry stress in many languages is just a coincidence or not. If the tendency is not a coincidence, why Pure reflexive anaphors, not Near reflexive ones, cannot carry stress need to be explained. I leave these issues for future research.

I still do not have an answer for the question we had at the beginning of this section: why Pure reflexive anaphors are morphologically simplex, not complex, in some languages and why they are affixal, not non-affixal, in other languages. The relation between complexity of anaphor and classification of anaphor should be worked out. How stressability is related to classification of anaphor is also an interesting research topic.

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[25]In the structure in (294a), the German anaphor *sich selbst* 'self-self' cannot be topicalized.

### 4.2.4   Summary

In this subsection, I have proposed that there is parametric variation among languages with respect to the classification of anaphor into the Pure reflexive and Near reflexive types. My proposal is that which variation a language belongs to depends on if lexical reflexivity marking occurs separately from or simultaneously with semantic reflexivity marking. In languages in which lexical reflexivity marking and semantic reflexivity marking occur separately, the morphological complexity of anaphors corresponds to the two-type distinction. On the other hand, in languages in which lexical reflexivity marking and semantic reflexivity marking occur simultaneously, the affixal and non-affixal status difference of anaphor corresponds to the two-type distinction.

### 4.3   Chapter summary

In this section, I have made two proposals. My first proposal is that there are only the two types of anaphor: Pure reflexive anaphors and Near reflexive anaphors (Lidz, 1996, 2001a,b), in languages. I have claimed that what looks like a third type of anaphor: for example, the Chinese anaphor *ziji-benshen* 'self-Self' with a focus function (Liu, 2003), is a subcase of Near reflexive anaphor. Some Near reflexive anaphors have special functions like focus and these anaphors do not behave like Near reflexive anaphor due to their special functions, but they are Near reflexive anaphors in nature. If this proposal is correct, we can resolve the contradiction caused by adopting both Lidz's (1996, 2001a,b) and Liu's (2003) analyses that we have encountered at the end of Chapter 3: the behavior of the reflexive anaphors in Japanese can be explained if we adopt both analyses, but the

application of the two analyses is contradictory with Liu's (2003) claim that languages disjunctively select one of the two ways to induce Pure identity readings, namely Pure reflexivity induced as a consequence of Condition R (Lidz, 1996, 2001a,b) and Pure identity induced as a consequence of the semantic composition of an anaphor. I have claimed that the two ways to induce Pure identity need not to be disjunctive in a language. A language like Japanese and Chinese has both a Pure reflexive anaphor that induces Pure reflexivity and a Near reflexive anaphor that has a special function and induces Pure identity (and it does not behave like a Near reflexive anaphor). Multiple forms of anaphor in languages, thus, can be classified into the two types: Pure reflexive anaphor and Near reflexive anaphors.

My second proposal is that there is parametric variation among languages with respect to the two-type classification of anaphor. (295) is the summary of this proposal. How anaphors are classified in a language into the Pure reflexive and Near reflexive types depends on if semantic and lexical reflexivity marking occurs separately or simultaneously. In some languages such as Dutch and Kannada, lexical reflexivity marking and semantic reflexivity marking occur separately. Verbs in these languages lexically or morphologically mark lexical reflexivity and take semantic reflexivity marker, namely, Pure reflexive anaphors in syntax. Morphologically simplex anaphors are of this type of anaphor. Morphologically complex ones are, in contrast, Near reflexive anaphors. On the other hand, in other languages like Japanese and Russian, lexical reflexivity marking and semantic reflexivity marking occur simultaneously. Semantic reflexivity markers mark lexical reflexivity too. In these languages, the affixal and non-affixal status difference of anaphor corresponds to the two-type distinction: affixal forms of anaphors are Pure

reflexive anaphors and non-affixal ones are Near reflexive anaphors.

(295) Parametric Variation of Anaphor Classification

|   | type | form | reflexivity marking | languages |
|---|------|------|---------------------|-----------|
| a. | Pure reflexive | morphologically simplex | lexical reflexivity and semantic reflexivity | Dutch, Norwegian Danish, Kannada, |
|   | Near reflexive | complex | marked independently | Malayalam, etc. |
| b. | Pure reflexive | affixal | lexical reflexivity and semantic reflexivity | Japanese, Russian, Korean, Chinese, |
|   | Near reflexive | non-affixal | marked simultaneously | Turkish, Italian, Spanish, English etc. |

I have also considered why Pure reflexive anaphors are morphologically simplex, not complex, in some languages like Dutch and why they are affixal, not non-affixal, in other languages like Japanese, though I do not yet have a good answer for the question. Although it is not universal, in many languages, Pure reflexive anaphors cannot carry stress on them, while Near reflexive anaphors can. The relation between complexity of anaphor and classification of anaphor, and how stressability relates to the classification have to be worked out.

# Chapter 5

## Predicates and Reflexives

I have reviewed properties of reflexive anaphors in Japanese and proposed the genuine classification of them in Chapters 2-4. The goal of this chapter is, using what we have dug out in the previous chapters, to give an answer to one of the unsolved questions in the research of reflexives in Japanese: what causes the different availability of local *zibun* 'self' binding between (296a) and (296b).[1]

(296)  a.  John$_i$-wa  zibun$_i$-o  seme-ta.                                    (= (6))

      John-Top self-Acc blame-Past

      'John blamed himself.'

    b.* John$_i$-wa  zibun$_i$-o  ket-ta.

      John-Top self-Acc kick-Past

      'John kicked himself.'

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[1] As I have discussed in Section 4.1, I am assuming that *zibun* is a Near reflexive anaphor that allows a Near reflexive (or statue) interpretation. (296b) is acceptable if *zibun* is interpreted under a statue reading. I will come back to this issue in Section 5.2.2.

(i)  John$_i$-wa  zibun$_i$-o  ket-ta.

    John-Top self-Acc kick-Past

    'John$_i$ kicked the statue that depicts him$_i$.'

To answer the question, or more generally, to comprehend the nature of reflexives in Japanese, it is important to understand the nature of predicates that occur with reflexives as well as the nature of reflexive anaphors. In this chapter, I consider how predicates in Japanese are classified and what properties each class of predicate has. I discuss the relation between the type of anaphor and the type of predicate.

In Section 5.1, I discuss the relation between the type of element and the type of predicate, considering the conditions that allow backward binding. In Section 5.2, I discuss the classification of Japanese predicates, reviewing previous works that propose how to classify predicates into types based on their properties (Reinhart and Reuland, 1993, Bergeton, 2004). Which types of predicate each type of anaphor can occur with is discussed. Section 5.3 is the summary of this chapter.

## 5.1   Backward binding

In this section, I discuss the relation between the type of element and the type of predicate, exploring backward binding: a referent of an element does not syntactically bind the element but the referent relation holds.

In Section 2.1.2.3, we have observed that the logophoric type of *zibun* allows backward binding: for instance, recall (46), repeated here as (297).

(297) [Zibun$_i$-ga gan-dearu-toiu    sindan]-ga    Mitiko$_i$-o  zetubou-e    oiyat-ta.

   self-Nom  cancer-Cop-Comp evaluation-Nom Mitiko-Acc desperation-to drive-Past

   'The evaluation that she$_i$ has cancer drove Mitiko$_i$ to desperation.'          (= (46))

Other types of *zibun*, in contrast, exclude backward binding: for example, in (298), the

reflexive type of *zibun* is scrambled from the embedded clause and this cannot refer to the (underlying) local subject Mary.

(298) John-wa Bill-ni zibun-o [Mary-ga *t* seme-ta] to it-ta.

John-Top Bill-Dat self-Acc [Mary-Nom blame-Past] Comp say-Past

'John$_j$ said to Bill that Mary$_i$ blamed self$_{*i/j}$.' (Based on Katada (1988, 176))

This sentence allows the reading in which *zibun* refers to the matrix subject John. In this reading, however, I do not regard *zibun* as a reflexive anaphor, because *zibun* and the antecedent are not in a reflexive relation regarding the blaming event. *Zibun* in this example is interpreted as of the non-reflexive type.

The acceptability of backward binding depends not only on the type of *zibun* but also on the type of predicate: backward binding of logophoric *zibun* is allowed when a psych-verb or a predicate that denotes a mental process is involved (Postal, 1971, McCawley, 1976, Kameyama, 1984, Iida, 1996, Motomura 2001, among others). The verb in (297) is *zetubou-e oiyaru* 'drive someone to despair' is an example of this type of verb. This verb is called as 'object-experiencer verb' because the object argument Mitiko has the Experiencer role and her mental process is described. When *zibun* occurs with verbs of this type, due to the lexical nature of the verbs, it normally occurs in the sentential subject. Note that the crucial property that allows backward binding is not this syntactic configuration, but the property of predicate, as evidenced by the low acceptability of (299): the syntactic structure of (299) looks similar to the one in (297), but backward binding of *zibun* is not allowed in (299). In this example, the verb *todoku* 'arrive' is not a psych-verb.[2]

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[2]The surface structures of the two sentences (297) and (299) look similar, but they would not be identical

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(299) ?* [Zibun~i~-ga gan-dearu-toiu     sindan]-ga     Mitiko~i~-ni  todoi-ta.     (= (47))

        self-Nom   cancer-Cop-Comp evaluation-Nom Mitiko-Dat arrive-Past

        'The evaluation that she~i~ has cancer was delivered to Mitiko~i~.'


The necessary condition that allows backward binding of logophoric *zibun* is that (a) it can find its antecedent, namely a logophoric individual, and (b) it induces a *de se* interpretation (see Section 2.1.2.2 for the properties of logophoric *zibun*). Logophoric individuals often carry the role of Experiencer. Backward binding of logophoric *zibun* is allowed when the element occurs with psych-verbs and verbs that describe a mental process, because these verbs contain arguments with this theta role. That is, these verbs give a right environment for logophoric *zibun* to satisfy its antecedent requirement. In (297) with the psych-verb, Mitiko is the Experiencer and it is the logophoric individual that binds *zibun*. This *zibun* requires a *de se* interpretation, so this sentence cannot be followed by a sentence such as (300) in which the antecedent of *zibun*, the Experiencer, is not aware of the event in (297).

(300)  Sikasi soutowa-sira-zu seimeihoken-o     kaiyakusi-ta.

        but     that-know-Neg  life.insurance-Acc cancel-Past

        'But, in all innocence of that, she~Mitiko~ cancelled her life insurance.'


In (299), on the other hand, the verb *todoku* 'arrive' is not a psych-verb and Mitiko is not the Experiencer. Rather, this carries the Receiver role. This argument cannot be the

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if psych-verbs involve movement as discussed in Postal (1971) and Belletti and Rizzi (1988, 1991). If this class of verb really involves movement, the underlying structure of a psych-verb would be different from its surface one. The surface structure of (297) is derived via movement, while the one of (299) is not.

logophoric individual in this sentence. Backward interpretation is hard to get.[3]

Let me introduce another environment where arguments with the Experiencer occur. Compare the two English expressions in (301) that contain the psych verb *worry* and their corresponding Japanese expressions in (302). The (a) examples contain 'subject-experiencer verbs' (verbs that have arguments with the Experiencer role in their subject position), and the (b) examples contain object-experiencer verbs.

(301) a. John worried about the TV set.

   b. The TV set worried John.

(302) a. John-ga    sono terebi.setto-ni.tuite nayan-da.

      John-Nom that  TV.set-about       worry-Past

      'John worried about the TV set.'

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[3]The type of verb does not affect the availability of backward control, contrary to the backward binding case. Compare (i) and (ii), in which the same psych-verb and non-psych-verb as (297) and (299), respectively, are used. This would be because PRO does not have the antecedent requirement that logophoric *zibun* has.

   (i) [PRO$_i$ gan-dearu-toiu    sindan]-ga    Mitiko$_i$-o zetubou-e    oiyat-ta.        (cf. (297))

         cancer-Cop-Comp evaluation-Nom Mitiko-Acc desperation-to drive-Past

      'The evaluation that she$_i$ has cancer drove Mitiko$_i$ to desperation.'

   (ii) [PRO$_i$ gan-dearu-toiu        sindan]-ga    Mitiko$_i$-ni  todoi-ta.        (cf. (299))

         cancer-Cop.Pres-Comp evaluation-Nom Mitiko-Dat arrive-Past

      'The evaluation that she$_i$ has cancer was delivered to Mitiko$_i$.'

b. Sono terebi.setto-ga John-o     nayam-ase-ta.

   that   TV.set-Nom    John-Acc worry-Caus-Past

   'The TV set worried John.'                              (Kiguchi, 2002, 106)

In the English examples (301a) and (301b), the subject-experiencer verb and the object-experiencer verb are in the same form. On the other hand, in their corresponding sentences in Japanese in (302a) and (302b), respectively, the two types of verb are in different forms. The object-experiencer verb in (302b) has a morphological complex causative structure: the subject-experiencer verb *nayamu* 'worry' used in (302a) takes the causative marker *sase*. The more appropriate translation of (302b) would be 'The TV set caused John to be worried.'

To understand how (302a) and (302b) are related, I review Kuroda (1965) as an analysis of experiencer-verbs in Japanese. Comparing subject-experiencer verbs such as *tanosimu* 'be amused' in (303a) to object-experiencer verbs like *tanosimasu* 'amuse' in (303b), he proposes that the object-experiencer verb has the underlying structure like (303c): the object-experiencer verb is underlyingly the subject-experiencer verb embedded in a causative structure marked with the *sase* causative morpheme.

(303) a. John-ga     ongaku-o   tanosim-u.

        John-Nom music-Acc be.amused-Pres

        'John is amused at music.'

     b. Ongaku-ga John-o     tanosim-ase-ru.

        music-Nom John-Acc be.amused-Caus-Pres

        'Music amuses John.'

c. Ongaku-ga (John-ga ongaku-o tanosim) sase-ru[4]

What he assumes is that, in both (303a) and (303b), John has the Experiencer role. The underlying structure in (303c) contains two instances of *ongaku* 'music,': one functions as the Theme of the embedded predicate and the other as the Causer of the matrix predicate, *-sase*.

Adopting Kuroda (1965), I assume that (302a) and (302b) are analyzed as having the configurations like like (304a) and (304b), respectively. What thematic role each item has is indicated in (304).

(304) a. John-Nom     TV-set-about   worry   -Tense

      Experiencer   Theme            verb

   b. TV-set-Nom   [John-Nom    TV-set-about    worry ]    *-ase*     -Tense

      Causer         Experiencer   Theme              verb       -Caus

John has the Experiencer role and TV-set has the Theme role in both cases. In (304b), TV-set has the Causer role too.

Now, let us come back to backward binding. As (305) illustrates, backward binding of

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[4](303a) and (303b) are Ex.36 and Ex.37 in Kuroda (1965), respectively. The gloss in (303a), (303b) and (i) below are added by MK.

Kuroda (1965) originally proposes (i) as the underlying structure of (303b). However, I change the accusative case marker *-o* in (i) to the nominative case marker *-ga* as in (303c), to show the parallel of the structures between the subject-experiencer verb and the object-experiencer verb more clearly.

(i) Ongaku-ga John-o     ongaku-o  tanosim    sase  ru

   music-Nom John-Acc music-Acc be.amused Caus Pres.                    (Kuroda, 1965, (23))

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*zibun* is allowed when the item occurs in a sentence that contains a complex causative structure.

(305)  [$_{CP}$ Zibun$_{i/*j}$-ga gan    kamosirenai koto]-ga  Kenji$_i$-ni  oya$_j$-o      itawar-ase-ta.

     Self-Nom      cancer may.have    fact-Nom Kenji-Dat parent-Acc care-Caus-Past

     'The fact that he may have cancer caused Kenji to care for his parent.'

<div align="right">(Motomura, 2001, (22))</div>

Following Motomura (2001), I claim that the verbal complex (the verb taking the causative marker) in (305) has the same underlying structure with object-experiencer verbs like (302b) and that (305) is underlyingly like (306).

(306)   [$_{CP}$ *...zibun...* ]-Nom   [Kenji-Nom   parent-Acc   care ]   *-ase*    -Tense

     Causer                 Experiencer   Theme       verb    -Caus

Then, in (305), Kenji has the Experiencer role, and the requirement of logophoric *zibun* that needs a logophoric individual is satisfied. Another participant, *oya* 'parent,' does not have that role and cannot be regarded as the logophoric individual. The reading in which *zibun* refers to this participant is excluded because the requirement of logophoric *zibun* on its antecedent is not satisfied.

If *pro* is used, instead of logophoric *zibun*, as in (307), *pro* does not have such an antecedent restriction. Then, the second participant *oya* 'parent' as well as Kenji can be interpreted as the reference of *pro*.

(307) [pro$_{i/j}$ gan    kamosirenai koto]-ga  Kenji$_i$-ni  oya$_j$-o      itawar-ase-ta.

          cancer may.have    fact-Nom Kenji-Dat parent-Acc care-Caus-Past

     'The fact that *pro* may have cancer caused Kenji to care for his parent.'

<div align="right">(Motomura, 2001, (32))</div>

So, backward binding of logophoric *zibun* is allowed as far as it can find a logophoric individual antecedent. The verbs (or complex causative verbs) in (297) and (305) give such an environment. I would say that backward binding of logophoric *zibun* is allowed when *zibun* occurs with verbs that contains the Experiencer role.

    Logophoric *zibun* is not the only one type of *zibun* that allows backward binding, as reported in Oshima (2009). Observe (308).[5]

(308) [Zibun$_i$-ga hatumei-si-ta] kikai-ga     Sato-san$_i$-ni  kyoman-no tomi-o motarasi-ta.

     self-Nom  invent-Past    machine-Nom Sato-Mr.-Dat huge fortune-Acc  bring-Past

     'The machine he$_i$ invented brought a big fortune to Mr. Sato$_i$.'  (Oshima, 2009, (2))

In (308), a non-psych verb is used. In (299) as well, a non-psych verb is used and the backward binding of logophoric *zibun* is not allowed. If *zibun* in (308) were of the same type as *zibun* in (299), then the former sentence would be also excluded because the possible antecedent of *zibun* in (308), namely Mr. Sato, does not have the Experiencer role and *zibun* cannot find a logophoric individual. That (308) is acceptable and the backward binding of *zibun* is totally fine, contrary to the unacceptable (299), suggests that *zibun* in (308) belongs to a different type from *zibun* in (299) that is of the logophoric type.

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[5]See Momoi (1985) and Iida (1996) for other examples of this type of *zibun* backward binding.

A piece of evidence that shows that *zibun* in (308) is not of the logophoric type is that this *zibun* needs not to be interpreted with the *de se* interpretation. The sentence (308) can be followed by a sentence like (309).

(309) Sikasi soutowa-sira-zu hitasura hataraki-tuduke-ta.

　　　but　　that-know-Neg　busily　work-keep-Past

　　　'But, in all innocence of that, he$_{Sato}$ kept working so hard.'

Thus, *zibun* in (308) is not of the logophoric type. Then, which type of *zibun* is this? We have seen in (298) that reflexive *zibun* does not allow backward binding. Then, is *zibun* of the empathic type?

To see if this *zibun* is really of the empathic type, consider (310). The sentence is slightly changed from (308) but still has the same backward binding configuration.

(310) [Zibun$_i$-ga hatumei-si-ta] kikai-ga　　　Sato-san$_i$-o　yuumeini-si-ta.

　　　self-Nom　invent-Past　　machine-Nom Sato-Mr.-Dat famous-make-Past

　　　'The machine he$_i$ invented made Mr. Sato$_i$ famous.'

If *zibun* in this example were of the empathic type, the speaker empathizes with Mr. Sato, the referent of *zibun*. Now, recall the giving verb auxiliaries in Japanese reviewed in Section 2.1.2.1: when the action is looked at from a subject element's point of view, the verb *yaru* (a subject-centered giving verb) is used. In contrast, when a non-subject element has the point of view, the verb *kureru* (a non-subject-centered giving verb) is used. Then, it is predicted that, in (310), because the speaker empathizes with the object, the matrix verb *yuumeini-suru* 'make X famous' felicitously takes the non-subject-centered verb *kureru*, but not the subject-centered verb *yaru*, as its auxiliary verb. Observe (311).

(311) * [Zibun<sub>i</sub>-ga hatumei-si-ta] kikai-ga        Sato-san-o      yuumeini-si-te      {yat-ta

self-Nom   invent-Past      machine-Nom Sato-Mr.-Dat famous-make-Asp {Ben-Past
/ kure-ta}.

/ Ben-Past}

'The machine he$_i$ invented made Mr. Sato$_i$ famous.'

The result is that, as predicted, the subject-centered verb *yaru* is not available. Contrary to the prediction, however, the non-subject-centered verb *kureru* is also excluded. So, *zibun* in (308) is not of the empathic type that is bound by an empathy-locus. Then, what type is this *zibun*?

Adopting Oshima (2009), I assume that *zibun* in (308) is a special case of the contrastive or emphatic use of *zibun* (Hirose (1997): cf. Pollard and Xue (2001)) that is exemplified in (312).

(312) Taro-wa  minna-ni      nihonsya-o        susume-ru-si,        zibun-mo Toyota-no

Taro-Top everyone-Dat Japanese.car-Acc recommend-Pres-and self-also   Toyota-Gen
kuruma-ni not-teiru.

car-Dat      drive-Asp.Pres

'Taro recommends Japanese cars to everyone, and he himself drives a Toyota too.'

(Oshima, 2009, (19))

In this example, *zibun* not only refers to the subject Taro but also has the contrastive meaning as the English gloss *he himself* illustrates. Oshima does not give any proposal with respect to the licensing conditions for this usage of *zibun*. Neither can I give any here. However, I would like to point out the relation between backward binding and con-

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trastive/emphatic meaning, showing another case in which contrastive/emphatic meaning affects the availability of backward binding.

In (298) above, I have shown that backward binding of reflexive *zibun* is not allowed. Backward binding of reflexive anaphor is, however, not always excluded. In (313), the exact same configuration as (298), scrambled reflexive anaphors *mizukara* and *zibun-zísin* (the intensified form of reflexive *zibun*) allow the reflexive readings in which they refer to the local antecedent Mary of their original position.

(313) John-wa  Bill-ni   {mizukara / zibun-zísin / *zibun / *zibun-zisin}$_i$-o

    John-Top Bill-Dat {self     / self-self    / self   / self-self}-Acc

    [Mary-ga    $t_i$ seme-ta]    to     it-ta.

    [Mary-Nom   blame-Past] Comp say-Past

    'John said to Bill that Mary$_i$ blamed self$_i$.'    (= (i) in Footnote 10 of Chapter 4)

In (313), some anaphors allow backward binding, so the property of the predicate *semeru* 'blame' is irrelevant for the (un)availability of backward binding of anaphor. I attribute the difference of the availability to the property of the anaphors. The anaphors that allow backward binding, namely *mizukara* and *zibun-zísin*, have the contrastive meaning (recall that these anaphors both have contrastive meaning: see (157)), while the anaphors that exclude backward binding; *zibun* and *zibun-zisin*, lack this meaning.[6]

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[6]Judgements on the acceptability of *zibun-zisin* backward binding vary: some speakers allow that, but some exclude. If *zibun-zisin* can refer to Mary, the argumente here would not work.

Also, in (313), *zibun* allows the reading in which it refers to the matrix subject John: 'John$_i$ said to Bill that Mary blamed self$_i$.' I do not regard *zibun* in this reading as a reflexive anaphor because it is not in a reflexive relation with its antecedent John: *zibun* is involved in the blaming event but the antecedent is not.

The licensing condition of the contrastive/emphatic usage of *zibun* as in (308) would be accounted for by considering the relation between backward binding and contrastive meaning. I leave this issue for future study.

The observations in this section illustrate that the acceptability of backward binding of element depends on both the properties of element and the properties of predicate. Also, it seems that, compared to the reflexive type of *zibun*, the distribution of the logophoric *zibun* is less restricted in terms of syntax: while the reflexive *zibun* requires a local antecedent, the logophoric *zibun* allows non-local antecedents as well as local ones. Further, although the reflexive *zibun* is subject-oriented, the logophoric *zibun* is not subject-oriented and it can refer to a subject or a non-subject. In terms of semantics, however, the logophoric *zibun* is more restricted: it needs to be bound by a logophoric individual and yields a *de se* interpretation. The reflexive type of *zibun*, in contrast, does not have such a semantic restriction on its antecedent. Can reflexive *zibun* occur without any restriction as long as it takes a coargument subject antecedent?

The answer is 'No.' The reflexive type of *zibun* also has a restriction on its cooccuring verb, as does the logophoric type of *zibun*. We have seen in (296) that the local binding of *zibun* is allowed when it occurs with the verb *semeru* 'blame,' but not with the verb *keru* 'kick.' In the following section, I consider what properties each of the verb has.

## 5.2   Types of predicate and reflexive

The purpose of this section is to find the type of predicate that allows its cooccuring reflexive *zibun* to be locally bound. For this, I first review two previous studies that

classify predicates in a language into types: Reinhart and Reuland (1993) and Bergeton (2004), in Section 5.2.1. Adopting the latter analysis to Japanese, I consider how Japanese predicates are classified in Section 5.2.2. I discuss the relation between the type of predicates and the type of reflexives that felicitously cooccur. In Section 5.2.3, I propose an answer to the unsolved question in the study of reflexives in Japanese: what causes the different availability of local *zibun* 'self' binding between (296a) and (296b).

## 5.2.1  Classification of predicates

Several studies have proposed that the availability of local binding of anaphor depends on the properties of its cooccuring predicate, observing several languages (Reinhart and Reuland, 1993, Aikawa, 1993, Bergeton, 2004, among others). In this subsection, I review Reinhart and Reuland (1993) and Bergeton (2004).

In Section 3.1, we saw that Reinhart and Reuland (1993) classify predicates into three types: inherently reflexive, non-reflexive and doubly-specified verbs (I mark each type of verb as [+ ref], [– ref] and [+/– ref], respectively, for convenience).

(314)  a.  Max gedraagt ([+ ref]) {zich /*zichzelf}.                    (= (160)) [Dutch]

     behaves   {SE /*SELF}

  'Max behaves.'


 b.  Max haat ([– ref]) {zichzelf /*zich}.

     hates   {SELF /*SE}

  'Max hates himself.'

c. Max wast ([+/– ref]) {zich / zichzelf}.

　　　washes　　　　{SE / SELF}

　'Max washes himself.'

Reinhart and Reuland account for the distribution of the two types of Dutch anaphor: *zich* 'self' and *zichzelf* 'selfself,' as follows (see also the review of their analysis in Section 3.1). In (314a), the inherently reflexive verb takes the morphologically simplex anaphor *zich* that does not have the 'reflexivizing' function that adds reflexivity to verbs that lexically lack reflexivity. In contrast, in (314b), the non-reflexive verb needs to take the morphologically complex reflexivizer anaphor *zichzelf* to be reflexivized. The verb in (314c) is doubly specified as reflexive and non-reflexive. When it is used as a reflexive verb, the verb takes the non-reflexivizer anaphor *zich*. If it is used as a non-reflexive verb, it takes the reflexivizer anaphor *zichzelf*. (315) summarizes how their analysis classifies predicates.

(315) Predicate Classification in Reinhart and Reuland (1993)

| Type | Property | Occur with | Example |
|---|---|---|---|
| Reflexive | have lexical reflexivity | non-reflexivizer *zich* | (314a) |
| Non-reflexive | lack lexical reflexivity | reflexivizer *zichzelf* | (314b) |
| Doubly specified | used as reflexive | *zich* | (314c) |
|  | used as non-reflexive | *zichzelf* | (314c) |

We, however, have observed in Section 3.4.1 that the predicate system in Japanese is different from the ones in languages that they observe. For example, Dutch has verbs that are compatible with a certain type of anaphor as in (314b). On the other hand, Japanese does not have such verbs. The verb *hihan-suru* 'criticize' is compatible with any type of anaphor. So, Reinhart and Reuland's (1993) analysis is not available to classify predicates in Japanese.

(316) John-wa {zibun-o /zibun-zisin-o / ziko-} hihan-si-ta.                [Japanese]

   John-Top {self-Acc /self-self-Acc / self-}  criticize-do-Past

   'John criticized himself.'

As an alternative way to classify predicates, let us review Bergeton (2004) who mainly considers Danish and classifies predicates into types. In the Danish examples in (317), as in the Dutch examples in (314), some verbs occur only with the morphologically simplex anaphor as in (317a), some verbs occur only with the complex one as in (317b), and others occur with both types of anaphor as in (317c).

(317)  a. Peter hviler {sig /*sig selv}                                [Danish]

      Peter rests  {self / self self}

      'Peter rests himself.'

   b. Peter hader {∗sig / sig selv}.

      Peter hates {self / self self}

      'Peter hates himself.'

c. Peter vasker {sig / sig selv}.

Peter washes {self / self self}

'Peter washes himself.' (Bergeton, 2004, 116, (1c,b,a))

Bergeton's explanation of the distribution of the two forms of anaphor is, however, very different from Reinhart and Reuland's (1993). The two analyses differ not only in terms of the classification of predicate but also in terms of the classification of anaphor.

Let us see how Bergeton classifies anaphors first. He proposes that Danish has one type of reflexive anaphor *sig* 'REFL' (I adopt his notation) and this language has *sig selv* 'REFL self' as the intensified form of *sig*. He claims that the latter form is not an independent anaphor. This complex form is compositionally derived from its constituent components: the anaphor *sig* 'self' and the adnominal intensifier *-selv* 'self.' This intensifier adds contrastive or 'contrary-to-expectation-of-identity-of-arguments' meanings, as do adnominal intensifiers in other languages (recall Section 2.2).

Under his analysis, the anaphor *sig* is used if its cooccuring verb implies reflexivity or describes an identity relation between an anaphor and its antecedent. In contrast, the intensified form of *sig*, namely *sig selv*, is used if a verb implies non-reflexivity or a non-identity relation between arguments. Compare the two expressions in (318): both are acceptable but mean different.

(318) Peter wasker {sig / sig self}.

Peter washes {REFL / REFL self}

'Peter washes (himself).' (Bergeton, 2004, 116, (1a))

The former expression simply means 'Peter washes (himself),' but the latter expression has a contrary-to-expectation meaning such as 'Peter washes himself (not his car, in the garage).'

Now, let us see the predicate classification under Bergeton's analysis. He treats 'inherently reflexive verbs' in Reinhart and Reuland (1993) as 'reflexive verbs' that evoke a presupposition of representational identity of its arguments.[7] The verbs in (317a) above and (319) below belong to this class.

(319) Peter solede {sig    /*sig selv   /*Mary}.

   Peter tanned {REFL /REFL self / Mary}

   'Peter was tanning.' / *'Peter tanned Mary.'        (Bergeton, 2004, 153, (55))

With this type of verb, in terms of meaning, identity between an anaphor (/ object) and its antecedent (/ subject) is as expected or not surprising. In such an environment, the anaphor *sig* is used. It is weird to use the intensified form *sig selv* that has a contrary-to-expectation meaning. Also, these verbs do not allow a transitive usage: in (319), the non-reflexive object Mary is not available as an object of the verb, because of the identity requirement of the verb.

He calls what Reinhart and Reuland categorize as 'non-reflexive predicates' 'anti-reflexive predicates' that evokes a presupposition of non-identity. The verbs in (317b) and (320) are examples of this type of verb. As these verbs evoke a presupposition of non-identity between an anaphor and its antecedent, the coreference between the arguments

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[7]I use the term 'presupposition' following Bergeton (2004) in this section. As what he means by the term can be cancelled, 'presupposition' might not be the most appropriate term. I think that what he means would be expressed in a different term such as 'implicature.'

is unexpected. In that situation, the intensified form *sig selv* that has the contrary-to-expectation meaning is required. The (un-intensified) anaphor *sig* lacks such a meaning, so this type of anaphor is not compatible with this class of verb. These verbs allow the transitive usage, as the availability of Henry IV as the object in (320) shows: the subject *Der König* 'the king' and the object Henry IV are not identical and they felicitously occur with this class of verb that evokes a presupposition of non-identity between arguments.

(320) Der König efterfulgte {*sig   / sig selv   / Henry IV}.

  the king   succeeded {REFL / REFL self / Henry IV}

  'The king succeeded {himself / Henry IV}.'

Notice that, when *sig selv* is used, coarguments of this class of verb are representationally not identical, because these verbs evoke presupposition of non-identity between arguments. For example, given a traditional notion that a new king can only be crowned after the death of the old, the expression in (320) becomes true only in a situation like the king acted dead and pretended he was his crown prince. Then, what the subject *der König* 'the king' refers to is the king himself, but what the object *sig selv* refers to is not the king himself but something like 'the king pretending to be his crown prince.' Bergeton claims that *sig selv* refers to the focus-generated set of alternative semantic values for *sig* triggered by the adnominal intensifier.[8] That the anaphor and its antecedent are referentially related but not exactly identical in the *sig selv* case reminds us of Near reflexive interpretations in Lidz's (1996, 2001a,b) analysis reviewed in Section 3.2. I propose that

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[8]This idea is similar to Liu's (2003) analysis of the Chinese anaphor *ziji-benshen* 'self-Self' as a focus operator anaphor, reviewed in Section 3.3.

what Bergeton (2004) calls anti-reflexive predicates are predicates that allow only Near reflexive interpretations. Pure reflexive interpretations are always excluded.[9]

Reinhart and Reuland's 'doubly-specified predicates' are not doubly specified with respect to reflexivity under Bergeton's analysis. These verbs are called 'neutral verbs' that lack presuppositions concerning identity of arguments. These verbs are compatible with both reflexive and non-reflexive scenarios. The verb in (317c) and (321) are the examples. Both the reflexive anaphors and the non-reflexive element are available as the object argument of this class of verb.

(321)  Peter barberede {sig      / sig selv      / John}.

　　　 Peter shaved      {REFL / REFL self / John}

　　　 'Peter shaved {himself/John}.'                    (Bergeton, 2004, 155, part of (59))

In (321), *sig*, *sig selv* and John are all allowed as the objects of the verb. When *sig selv* is used, the expression has the contrary-to-expectation meaning, compared to the *sig* case.

Neutral verbs have a subtype that Bergeton calls 'hidden neutral verbs' such as *koge* 'boil' in (322).

(322)  Peter kogte  { #sig   / sig selv      / Mary}.

　　　 Peter boiled {REFL / REFL self / Mary}

　　　 'Peter boiled {himself / Mary}.'                           (Bergeton, 2004, 156, (60))

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[9]In Kishida (2009), I assume that languages have 'anti-reflexive verbs' and define these verbs as in (i), based on the semantics of Near reflexive anaphor (see (175) in Section 3.2) proposed in Lidz (1996, 2001a,b). I will come back to anti-reflexive verbs in Japanese in Section 5.2.2.

(i)  Anti-reflexive predicates are 'f(x)≠ x' verbs.                           (Kishida, 2009, (110))

This type of verb apparently looks like anti-reflexive verbs: the identity between subject and object is unexpected. These verbs are, however, logically compatible with reflexive scenarios: a presupposed non-identity of coarguments of verbs can be cancelled by contexts. With these verbs, normal background assumptions about the world trigger expectations of representational non-identity of arguments, but identity between the arguments is logically allowed. For example, in (322), boiling oneself is strange or unexpected given what we know about the world, but the following scenario is logically allowed: someone puts himself in a big water-filled pot on the stove and turns on the heat. In the case of the anti-reflexive type, in contrast, non-identity presuppositions are not cancellable by any context and identity of arguments is logically impossible. For example, in (320), the king could not succeed himself unless he pretended that he was his crown prince. The difference between the two types of verb is the compatibility with reflexive contexts.

Note that both normal and hidden types of neutral predicate are compatible with reflexive and non-reflexive scenarios, but they are different in their compatibility with *sig*. The normal type of neutral verb can occur with *sig* as in (321), while the hidden type cannot as in (322). Contexts make the hidden type of verb acceptable in reflexive scenarios, but these readings are not simple reflexive interpretations. Thus, *sig selv* that has an additional meaning like contrast, compared to simple *sig*, is required with the hidden type of neutral verbs for semantic reason.

The chart in (323) is the summary of Bergeton's (2004) predicate classification. The availability of cooccurrence with *sig* distinguishes the hidden type from the normal type of neutral verbs. Also, the cancellability of non-identity presuppositions separates hidden neutral verbs from anti-reflexive verbs.

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(323) Predicate Classification in Bergeton (2004)

| Type | Property | Cooccuring anaphor | Example |
|------|----------|-------------------|---------|
| Reflexive | presuppose identity of coarguments | *sig*  <br>  **sig selv* | (317a) |
| Anti-reflexive | presuppose non-identity of coarguments | **sig*  <br>  *sig selv* | (317b) |
| Neutral | – do not presuppose any identity  <br>  of coarguments | *sig*  <br>  *sig selv* | (317c) |
| Hidden Neutral | – compatible with reflexive  <br>  and non-reflexive scenarios | #*sig*  <br>  *sig selv* | (322) |

In Reinhart and Reuland (1993), the distribution of multiple forms of anaphor is accounted for in terms of their syntactic behavior difference: for example, the Dutch anaphor *zichzelf* functions as a reflexivizer. Predicates that lexically lack reflexivity require them. The non-reflexivizer *zich*, on the other hand, occurs with verbs that lexically have reflexivity. Bergeton (2004), in contrast, classifies anaphors based on their semantic difference. For example, under his analysis, while the Danish anaphor *sig* is an anaphor, *sig selv* is the intensified form of the anaphor *sig* that takes the adnominal intensifier -*selv*. Compared to *sig*, *sig selv* has an additional contrastive or contrary-to-expectation meaning. Predicates that presuppose identity of arguments take *sig* and predicates that presuppose non-identity require *sig selv*.

Although Japanese does not have a reflexivizer anaphor as we have seen in Section

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3.4.1, this language has *zibun-zísin* that consists of the anaphor *zibun* and the adnominal intensifier *-zísin*. Let us see if Japanese *zibun* and *zibun-zísin* behave like Danish *sig* and *sig selv*, respectively.

## 5.2.2 Classification of Japanese predicates

In this section, I test if Bergeton's (2004) four-way classification of predicate applies to Japanese. Recall (296), repeated here as (324): *zibun* allows local binding when it occurs with the verb *semeru* 'blame' but not with the verb *keru* 'kick.' If his analysis applies to Japanese, the unacceptability of local binding in (324b) is accounted for as follows. The verb *keru* 'kick' is a verb that evokes a presupposition of non-identity between arguments, like *efterfulgte* 'succeeded' or *koge* 'boil' in Danish as discussed in Bergeton (2004). Its cooccuring anaphor, *zibun*, however, implies identity with its antecedent. Then, the verb and this anaphor cannot felicitously cooccur.

(324) a. John-wa  zibun-o  seme-ta.                              (= (6), (296))

   John-Top self-Acc blame-Past

   'John blamed himself.'

   b.∗ John-wa  zibun-o  ket-ta.

   John-Top self-Acc kick-Past

   'John kicked himself.'

Recall that I am assuming that *zibun* is a Near reflexive anaphor and it can refer to not only the antecedent itself (Pure reflexive interpretation) but also an element that is representational related to its antecedent (Near reflexive interpretation). While *zibun* under

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Pure reflexive interpretations implies identity with its antecedent, *zibun* under Near reflexive readings does not. Then, it is predicted that *zibun* under Near reflexive readings is compatible with verbs that evoke non-identity between arguments. This prediction is borne out, as the contrast between (324b) and (325) indicates.

(325) John$_i$-wa zibun$_i$-o ket-ta.

John-Top self-Acc kick-Past

'John$_i$ kicked the statue that depicts him$_i$.'

So, the combination of *zibun* and verbs like *keru* 'kick' is excluded only when *zibun* implies identity with its antecedent, or in other words, when it is read under Pure reflexive interpretations.

We have another prediction: *zibun* becomes compatible with these verbs if it takes the adnominal intensifier *-zísin* that adds the contrastive or contrary-to-expectation meaning, as in Danish. Compare (324b) to (326) with the adnominal intensifier *-zísin*.

(326) John-wa zibun-zísin-o ket-ta.

John-Top self-Self-Acc kick-Past

'John kicked himself, not someone else.'

Once the anaphor takes the adnominal intensifier, the unacceptable expression in (324b) becomes acceptable. By adding the contrastive meaning, the acceptability improves. Also, the complex form *zibun-zísin* is compatible with the verb *semeru* 'blame' used in the already acceptable sentence (324a). (327) has the additional contrastive meaning, compared to (324a).

(327) John-wa zibun-zísin-o seme-ta.

    John-Top self-Self-Acc blame-Past

    'John blamed himself, not someone else.'

That the verb *keru* 'kick' cannot felicitously occur with *zibun* 'self' in (324b) but can occur with its intensified form *zibun-zísin* 'self self' in (326) is parallel to the pattern that the Danish anaphor *sig* 'self' and its intensified form *sig selv* 'self self' show when they occur with hidden neutral verbs as in (322). Based on this observation, I claim that the verb *keru* 'kick' is a hidden neutral verb and that Japanese has hidden neutral verbs that evoke a presupposition of non-identity between subject and object. With this class of verb, identity of arguments becomes possible by contexts. Other verbs of this type in Japanese are *tataku* 'hit,' *naguru* 'hit' and *arau* 'wash.' One way to make the identity possible is to contrast the object with someone/something else by adding the adnominal intensifier *-zísin* '-Self' to *zibun*.[10][11]

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[10]There are two more ways to make the identity possible. I will introduce them in Section 5.2.3.

[11]Adding the adnominal intensifier improves the acceptability of the case in which *zibun* takes a plural subject as the contrast between (i) and (ii) shows.

  (i) *[John to   Mary]-wa zibun-o ket-ta.

    [John and Mary]-Top self-Acc kick-Past

    'John and Mary kicked themselves.'

  (ii) [John to   Mary]-wa zibun-zísin-o ket-ta.

    [John and Mary]-Top self-Self-Acc kick-Past

    'John and Mary kicked themselves (, not someone else).'

Recall that, as we have observed in (229c) in Section 4.1.1, *zibun-zísin* with a plural subject always induces distributive interpretations but never allows collective readings. The sentence (ii) also allows only the distributive reading: John kicked himself and Mary kicked herself. Other readings, like the reciprocal reading:

I claim that Japanese has the normal type of neutral verbs as well. The verb in (324a) is an example of this class of verb. In that example, the verb takes the reflexive anaphor *zibun* as its object and yields the reflexive reading 'John blamed himself.' This verb is compatible with the intensified form of *zibun* as well, as (327) shows. Also, in (328), the same verb takes the non-reflexive element Mary as its object

(328) John-wa Mary-o seme-ta.

    John-Top Mary-Acc blame-Past

    'John blamed Mary.'

This verb is compatible with both the reflexive and non-reflexive scenarios. This verb shares the properties that normal neutral verbs in Danish have. Other neutral verbs in Japanese are *homeru* 'praise,' *bunseki-suru* 'analyze' and *syoukai-suru* 'introduce.'

    I assume that Japanese has anti-reflexive verbs. Bergeton claims that anti-reflexive verbs occur only with the intensified form of anaphor (e.g. *sig selv* in Danish) and that the element and its antecedent are representationally not identical. I have proposed that anti-reflexive verbs in Bergeton's sense are predicates that induce only Near reflexive interpretations. Japanese has some predicates that share this property: verbs used in

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John kicked Mary and Mary kicked John, are not available. This makes us predict that the unacceptable sentence (i) becomes acceptable when the phrase *sorezore* 'respectively' that functions as a distributer is added to the sentence (see also Hara (2002, 50)). This prediction is borne out in (iii).

(iii) [John to Mary]-wa sorezore zibun-o ket-ta.

    [John and Mary]-Top respectively self-Acc kick-Past

    'John and Mary respectively kicked themselves.'

verbal idioms reviewed in Section 2.1.1, such as *zibun-o korosu* 'sacrifice oneself, kill one's self (lit. kill oneself).' Occurring with these verbs, the object *zibun* always induces a Near reflexive reading.

In normal reflexive expressions like (324a), *zibun* refers to its antecedent itself and induces a Pure reflexive interpretation. In this interpretation, the Near reflexive function of *zibun* (recall the semantics of Near reflexive anaphor in Lidz (1996, 2001a,b) in (175b)) takes its antecedent as its input and returns the antecedent itself. On the other hand, in the idiom usage, the Near reflexive function never returns its input itself. *Zibun* in idioms refers to an element that is representationally related to the antecedent but it is not exactly identical with the antecedent. Consider the idioms *zibun-o korosu* 'sacrifice oneself, kill one's self' in (329a) and *zibun-o mitumeru* 'consider about oneself' in (329b).

(329)  a. John-wa  zibun-o  korosi-te issyoukenmei hatarai-ta.

      John-Top self-Acc kill-and   hard             work-Past

      'John sacrificed himself and worked hard.'

    b. John-wa  zibun-o  mitume-naosi-ta.

      John-Top self-Acc stare-again-Past

      'John considered about himself again.'

In (329a), what is sacrificed or killed is his feeling or his self, not John himself. In (329b) as well, what is considered is his personality. These are some extension of John, that is, what are induced in these examples are the Near reflexive interpretations. My claim is that verbs in idioms are anti-reflexive verbs that evoke a presupposition of non-identity between subject and object and *zibun* in the object position of these verbs always induces

a Near reflexive interpretation. Note that, while Danish anti-reflexive verbs take the complex form *sig selv*, Japanese anti-reflexive verbs take *zibun* without the adnominal intensifier. This difference between the two languages would be because, in Japanese, the combinations of anti-reflexive verbs and *zibun* are fixed as idioms. Other anti-reflexive verbs in Japanese are *kitaeru* 'train (lit.)'/'discipline (idiom)' and *sagasu* 'search (lit.)'/'find (idiom).' Also see the list in (17) in Section 2.1.1.

Japanese has reflexive verbs as well: *zi*-verbs and *ziko*-verbs reviewed in Section 2.3.1.2. The example verbs are given in (330).

(330) a. John-wa  zi-satu-si-ta.

John-Top self-killing-do-Past

'John killed himself.'

b. John-wa  ziko-hinan-si-ta.

John-Top self-criticism-do-Past

'John criticized himself.'

These verbs morphologically incorporate object arguments, namely *zi-/ziko*-affixes, and they do not take object arguments: in (331), the *zi*-verb cannot take *zibun* as its object.

(331)*John-wa  zibun-o  zi-satu-si-ta.

John-Top self-Acc self-killing-do-Past

'John killed himself.'

Recall that we have applied the inherent reflexivity diagnostic to this class of verb in (197) and saw that coarguments of these verbs should be identical in Section 3.4.1. Also, in

Chapter 4, we have concluded that the *zi-* and *ziko-*affixes are the Pure reflexive anaphors. Pure reflexive anaphors refer to their antecedent themselves. That inherently reflexive verbs evoke a presupposition of identity between arguments is consistent with the fact that Pure reflexive anaphors are used in inherently reflexive verbs.

The chart (332) is the summary of our observation in this section.

(332)  Predicate Classification in Japanese

| Type | Properties | Cooccuring anaphor | Example |
|---|---|---|---|
| Reflexive | presuppose identity<br>of coarguments | *zi-/ziko-* | (330) |
| Anti-reflexive | – presuppose non-identity<br>– used in idioms | *zibun* (f(x)≠x) | (329) |
| Neutral | – do not presuppose any identity<br>   of coarguments | *zibun*<br>*zibun-zísin* | (324a)<br>(327) |
| Hidden<br>Neutral | – compatible with reflexive<br>   and non-reflexive scenarios | *zibun-zísin*<br>*\*zibun* | (326)<br>(324b) |

Japanese has the four types of predicates: reflexive verbs, anti-reflexive verbs, neutral verbs and hidden neutral verbs, as does Danish. The types of cooccuring anaphor are, however, different. As summarized in (323), in Danish, inherently reflexive verbs take the anaphor *sig* and anti-reflexive verbs take the intensified form of anaphor *sig selv*. In contrast, in Japanese, the reflexive type of verb morphologically incorporates the *zi-/ziko-*

affixes and cannot take further objects. Also, the anti-reflexive type of verb takes the anaphor *zibun* that never refers to its antecedent itself. So, Bergeton's (2004) classification of predicates does not apply as it stands to Japanese, but the proposed classes of predicate seem to be available to classify predicates in Japanese.

Before moving to the next section, I briefly talk about verbs that are excluded from our discussion: Japanese has verbs that cannot be categorized into the four classes, such as *nobasu* 'stretch' in (333a) and *syuutyuu-suru* 'concentrate' in (333b). The English counterparts of these verbs can felicitously occur with the reflexive anaphor *himself*. However, in Japanese, these verbs cannot felicitously occur with the anaphor *zibun*.

(333)  a.∗ John-wa   zibun-o nobasi-ta.

   John-Top self-o    stretch-Past

   'John stretched himself out.'                                    (Hirose, 1997, 75)

   b.∗ John-wa   zibun-o syuutyuus-ase-ta.

   John-Top self-o    concentrate-Caus-Past

   'John concentrated on himself.'              (Hirose, 1997, 76: his judgement is ?)

Hirose (1997) claims that the acceptability of (333b) is higher than the one of (333a) and explains the different acceptability as follows: *zibun* prefers verbs that describe mental activities (like *syuutyuu-suru* 'concentrate' in (333b)) to verbs that describe physical activities (*nobasu* 'stretch' in (333a)) as its cooccuring verb. I, however, believe that both sentences are equally unacceptable. I attribute the unacceptability to the requirement of the verbs. These verbs require a body part (a physical body part or a more abstract part that belongs to one's body) as their object. For example, the verb in (333a) takes *karada*

'body' as its object in (334a) and the verb in (333b) takes *seisin* 'mind' in (334b). The two expressions are totally acceptable.

(334) a. John-wa karada-o nobasi-ta.

   John-Top body-Acc stretch-Past

   'John stretched his body out.'

b. John-wa seisin-o syuutyuus-ase-ta.

   John-Top mind-Acc concentrate-Caus-Past

   'John concentrated his attention.'

I exclude these verbs from my discussion here, because these verbs are not compatible with reflexive anaphors as their object.[12]

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[12]Tsujimura and Aikawa (1996) claim that verbs that require a body part are reflexive verbs that have an identity requirement between subject and object, as does the inherently reflexive verb *behave* in English: in (i), the verb takes *himself* that is identical with the subject as its object, but cannot take Bill.

  (i) John behaved {himself / *Bill}.

Tsujimura and Aikawa propose that the identity relation in reflexive verbs in Japanese holds between the subject and the possessor (the specifier) of the object, not the object itself. In (ii), the object of the verb *nobasu* 'stretch,' namely *karada* 'body,' has to be of the subject John, not of someone else such as Bill.

  (ii) John-wa ({ zibun-no / *Bill-no }) karada-o nobasi-ta.

     John-Top   self-Gen / Bill-Gen    body-Acc stretch-Past
     'John stretched { his body /*Bill's body } out.'

Contrary to their claim, however, I regard only *zi*-verbs and *ziko*-verbs as reflexive verbs.

### 5.2.3 Predicates and reflexives

In the last subsection, adopting Bergeton's (2004) terms, I classify Japanese predicates into four types as reflexive, anti-reflexive, neutral and hidden neutral types. In this subsection, I discuss the relation between the type of reflexive and the type of predicate. Japanese has multiple forms of reflexive: *zibun*, *zibun-zisin*, *zibun-zísin*, *zi-/ ziko*-affixes, *zisin* and *mizukara* (see (157) in Section 2.5). I consider which type of predicate each type of reflexive can occur with. Before looking into the compatibility of reflexive and predicate, I would like to mention that I do not test the compatibility of reflexive verbs in Japanese, namely the reflexive type of *zi*-verbs and *ziko*-verbs, with reflexive anaphors, because these verbs morphologically incorporate the affixal *zi-/ziko*-anaphors and cannot occur with any other object arguments. Only the affixal *zi-/ziko*-anaphors can occur with, or they must occur in, the reflexive type of verbs.

First, consider *zibun*. It can occur with anti-reflexive verbs, namely verbs used in idioms, as we have seen in (329a). When it occurs with this class of verb, idiomatic readings are induced and *zibun* never refers to its antecedent itself. It always induces a Near reflexive reading. It occurs with the neutral type of predicates, as we have seen in (324a), but not with the hidden neutral type as in (324b).

*Zibun-zisin* is not compatible with the anti-reflexive type: the idiomatic reading is not yielded in (335a). It can occur only with the neutral type of verb as in (335b). It cannot occur with the hidden neutral type, as the ill-formedness in (335c) shows.

(335)  a.∗John-wa   zibun-zisin-o korosi-ta.          [Anti-reflexive verb]

       John-Top self-self-Acc  kill-Past

       'John sacrificed himself (idiom).'


   b.  John-wa   zibun-zisin-o seme-ta.          [Neutral verb]

       John-Top self-self-Acc  blame-Past

       'John blamed himself.'


   c.∗John-wa   zibun-zisin-o ket-ta.          [Hidden neutral verb]

       John-Top self-self-Acc  kick-Past

       'John kicked himself.'


*Zisin* shows the same pattern as *zisin-zisin*: observe the three sentences in (336).


(336)  a.∗John-wa   zisin-o    korosi-ta.

       John-Top self-Acc kill-Past

       'John sacrificed himself (idiom).'


   b.  John-wa   zisin-o    seme-ta.

       John-Top self-Acc blame-Past

       'John blamed himself.'


   c.∗ John-wa   zisin-o    ket-ta.

       John-Top self-Acc kick-Past

       'John kicked himself.'


We have seen in Section 2.4.1 that *zisin* can occur with psychological verbs and refers to

more abstract thing (the reference need not to be visible/touchable), but it cannot occur

with verbs that describe physical actions. *Zisin* can occur only with a subset of neutral predicates that describes a mental process.

The intensified form of *zibun*, namely *zibun-zísin*, cannot occur with the anti-reflexive type of verb: it does not add a contrastive meaning to the idiomatic usage of *zibun*, as (337a) shows. This item is compatible with the neutral and hidden neutral types of predicate. In the case of neutral predicates, it adds the contrastive or contrary-to-expectation meaning as in (337b). In the case of hidden neutral type of verb, not only does it add the contrastive meaning, but it makes the expression itself acceptable. Compare (337c) with the normal *zibun* case in (324b).

(337)  a. *John-wa   zibun-zísin-o korosi-ta.

      John-Top self-Self-Acc kill-Past

      'John sacrificed himself, not someone else (idiom).'

    b. John-wa   zibun-zísin-o seme-ta.

      John-Top self-Self-Acc blame-Past

      'John blamed himself, not someone else.'

    c. John-wa   zibun-zísin-o ket-ta.

      John-Top self-Self-Acc kick-Past

      'John kicked himself, not someone else.'

*Mizukara* behaves like *zibun-zísin*: while it cannot occur with anti-reflexive verbs as in (338a), it is compatible with neutral verbs as in (338b) and with hidden neutral verbs as in (338c). *Mizukara* has a contrastive meaning that *zibun* and *zibun-zisin* lack.

(338)  a. *John-wa   mizukara-o korosi-ta.

     John-Top self-Acc    kill-Past

     'John sacrificed himself, not someone else (idiom).'

    b. John-wa   mizukara-o seme-ta.

     John-Top self-Acc    blame-Past

     'John blamed himself, not someone else.'

    c. John-wa   mizukara-o ket-ta.

     John-Top self-Acc    kick-Past

     'John kicked himself, not someone else.'

The *zi-*/*ziko*-affixes are available only with the reflexive type of predicate as in (339). They are incompatible with other types of verb, as the three sentences in (340) illustrate. The result in (340) is natural because these anaphors are affixal and cannot stand alone and they have to be incorporated into this class of verb.

(339)  a. John-wa  **zi**-satu-si-ta.

     John-Top self-killing-do-Past
     'John killed himself.'

    b. John-wa  **ziko**-hinan-si-ta.

     John-Top self-criticism-do-Past
     'John criticized himself.'

(340)  a. *John-wa  zi-o     korosi-ta.

     John-Top self-Acc kill-Past

     'John sacrificed himself (idiom).'

b. *John-wa  zi-o      seme-ta.

John-Top self-Acc blame-Past

'John blamed himself.'

c. *John-wa  zi-o      ket-ta.

John-Top self-Acc kick-Past

'John kicked himself.'

The summary of the above observations is given in (341). It is clear from the chart that neutral verbs occur with many types of reflexive, but other types of verb have restrictions on the type of reflexive that they can occur with.

(341) Compatibility of reflexive and predicate

|  | Reflexive | Anti-reflexive | Neutral | Hidden Neutral |
|---|---|---|---|---|
| *zibun* | no | yes [f(x)≠x] | yes | no |
| *zibun-zisin* | no | no | yes | no |
| *zisin* | | | | |
| *zibun-zísin* | no | no | yes | yes |
| *mizukara* | | | | |
| *zi-/ziko-* | yes | no | no | no |

Now, let me come back to the question: what causes the different availability of local *zibun* 'self' binding between (342a) and (342b).

(342) a. John-wa zibun-o seme-ta. (= (324))

     John-Top self-Acc blame-Past

     'John blamed himself.'

   b.* John-wa zibun-o ket-ta.

     John-Top self-Acc kick-Past

     'John kicked himself.'

The number of neutral verbs is very large, but the one of the other three types of verb is small. *Zibun* felicitously occurs with a large number of verbs, and it is locally bound by its coargument in these environments. Observing these data, many researches have claimed that *zibun* is an anaphor that requires a local antecedent. Then, the unacceptable (342b) looks problematic for these analyses. To solve this, some researches have proposed that *zibun* in (342b) is a pronoun that excludes a local antecedent, while *zibun* in (342a) is an anaphor that requires a local antecedent. I believe that we do not need to assume such an idiosyncratic analysis. I claim that *zibun* in (342b) is also a reflexive anaphor that requires a local antecedent. My answer to the unsolved question is that the ill-formedness of (342b) is because the verb *keru* 'kick' is of the hidden neutral type that evokes a presupposition of non-identity between subject and object, and the meaning of this verb conflicts with the meaning of reflexive *zibun* when the anaphor implies identity with its antecedent, or in other words, when the anaphor yields a Pure reflexive interpretation. As an evidence, as we have seen in (325), repeated here as (343), when *zibun* is read under Near reflexive interpretations, it does not imply identity with its antecedent. *Zibun* felicitously occurs with the verb *keru* 'kick.' So, only the combination of the verb

*keru* 'kick' and *zibun* under Pure reflexive interpretations is not allowed.

(343) John<sub>i</sub>-wa zibun<sub>i</sub>-o ket-ta.                                                (= (325))

    John-Top self-Acc kick-Past

    'John<sub>i</sub> kicked the statue that depicts him<sub>i</sub>.'

The combination of the verb and *zibun* (under Pure reflexive interpretations) becomes acceptable if the anaphor takes the adnominal intensifier *-zísin* '-Self' that adds a contrary-to-expectation-of-identity-of-arguments meaning, as in (344).

(344) John-wa zibun-zísin-o ket-ta.                                                (= (326))

    John-Top self-Self-Acc kick-Past

    'John kicked himself, not someone else.'

My account here is that the additional meaning of the adnominal intensifier semantically/pragmatically counteracts the non-identity meaning that the verb has, and the combination becomes acceptable.

    There are two more cases in which the unacceptable combination becomes acceptable. In (345), what is added is the idiom *zibun-de* 'by oneself' reviewed in Section 2.1.2.4. This idiom functions as an actor-oriented intensifier that emphasizes 'the action the action described by a sentence is performed by the subject referent, and not by some other person' (Gast and Siemund, 2006, 13).

(345) John<sub>i</sub>-wa zibun<sub>i</sub>-de zibun<sub>i</sub>-o ket-ta.                                                (= (57b))

    John-Top self-by    self-Acc kick-Past

    'John kicked himself on his own.'

*keru* 'kick' and *zibun* under Pure reflexive interpretations is not allowed.

(343) John$_i$-wa zibun$_i$-o ket-ta.                                                (= (325))

    John-Top self-Acc kick-Past

    'John$_i$ kicked the statue that depicts him$_i$.'

The combination of the verb and *zibun* (under Pure reflexive interpretations) becomes acceptable if the anaphor takes the adnominal intensifier *-zísin* '-Self' that adds a contrary-to-expectation-of-identity-of-arguments meaning, as in (344).

(344) John-wa zibun-zísin-o ket-ta.                                                (= (326))

    John-Top self-Self-Acc kick-Past

    'John kicked himself, not someone else.'

My account here is that the additional meaning of the adnominal intensifier semantically/pragmatically counteracts the non-identity meaning that the verb has, and the combination becomes acceptable.

    There are two more cases in which the unacceptable combination becomes acceptable. In (345), what is added is the idiom *zibun-de* 'by oneself' reviewed in Section 2.1.2.4. This idiom functions as an actor-oriented intensifier that emphasizes 'the action the action described by a sentence is performed by the subject referent, and not by some other person' (Gast and Siemund, 2006, 13).

(345) John$_i$-wa zibun$_i$-de zibun$_i$-o ket-ta.                                                (= (57b))

    John-Top self-by    self-Acc kick-Past

    'John kicked himself on his own.'

I assume that the additional meaning yielded by the idiom also counteracts the non-identity between subject and object implied by the verb.[13]

Also, if *zibun* itself, not the adnominal intensifier part as in (344), has contrastive stress as in (346), the non-identity requirement of verb is counteracted and the meaning conflict is cancelled.[14]

(346) John-wa ZIBUN-o ket-ta.

   John-Top self-Acc kick-Past

   'John kicked himself, not someone else.'

The well-formedness in (343), (344), (345) and (346) indicates that *zibun* is a reflexive anaphor that requires a local antecedent, contrary to previous studies that regard *zibun* in some cases like (342b) as a pronoun.

## 5.3   Chapter summary

In Section 5.1, I have considered the relation between the type of element and the type of predicate, exploring backward binding. There are two types of backward binding relation. In one type of backward binding, logophoric *zibun* is bound by a logophoric individual. In the other type, *zibun* in the contrastive or emphatic use is involved (Oshima, 2009). We have also observed that some reflexives allow backward binding if they have a contrastive meaning. The observations illustrate that the acceptability of backward binding depends on both the type of element and the type of predicate.

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[13]Also, as we have seen in Section 2.1.2.4, this idiom has a strict locality requirement. This might also improve the acceptability of the local binding in the example.

[14]I thank Tonia Bleam for pointing out this possibility.

In Section 5.2, I have discussed the classification of Japanese predicates, reviewing previous works that propose a way to classify predicates into types based on their properties. I have proposed that Japanese has four types of predicate: reflexive, anti-reflexive, neutral and hidden neutral types, adopting Bergeton's (2004) terms. Japanese has multiple forms of reflexive and I have shown which type of predicate these reflexives can occur with. I have proposed an answer to one of the unsolved questions in the research of reflexives in Japanese: why local binding of *zibun* 'self' is not allowed when it occurs with a certain type of verb, as the contrast between (342a) and (342b) indicates. My answer to the question is as follows. The verb *semeru* 'blame' in (342a) is of the neutral type that evokes a presupposition of identity between arguments, so the reflexive anaphor *zibun* that implies identity with its antecedent is compatible. On the other hand, the verb *keru* 'kick' in (342b) is of the hidden neutral type. The non-identity between subject and object is dominantly yielded. The combination of a hidden neutral verb and *zibun* causes a meaning conflict, if *zibun* is read under Pure reflexive interpretations and implies identity with its antecedent. The sentence (342b), however, becomes acceptable in some cases. When *zibun* yields a Near reflexive interpretation as in (343), it does not imply identity with its antecedent. Its meaning does not conflict with the meaning of the verb that requires a non-identity of arguments. By adding some element, the non-identity requirement of the verb is counteracted and the meaning conflict is cancelled: (a) adding the adnominal intensifier *-zisin* '-Self' to *zibun* as in (344) and (b) inserting the subject-oriented intensifier *zibun-de* 'by oneself' to the expression as in (345). Also, putting a contrastive stress on *zibun* has the same effect, and (346) is acceptable.

Chapter 6

Thesis Summary

In this dissertation, I have reconsidered reflexives in Japanese going through the three steps: (a) separation of genuine reflexive elements from elements that are confounded as reflexives, (b) classification of reflexive anaphors into subtypes based on their semantic property, and (c) classification of predicates that occur with anaphors.

In Chapter 2, I have laid out the properties of reflexive elements and elements that are often confounded as reflexive elements in Japanese: *zibun* 'self,' *zibun-zisin* 'self-self,' *zibun-zísin* (the intensified form of *zibun*) 'self-Self' and *zi-/ziko*-affixes 'self.' Although many previous works regard these items uniformly as reflexive elements, I have shown that these items are not always used as reflexive elements and proposed a way to separate genuine reflexive anaphors from apparent reflexive elements. I have also considered less-studied reflexive anaphors: *zisin* 'self,' *ziko* 'self' and *mizukara* 'self.' I have proposed that reflexive anaphors have all the three properties: (a) local binding by coargument, (b) subject-orientation, and (c) Animacy restriction.

In Chapter 3, I have considered how reflexive elements in one language differ and how they are classified, reviewing three previous works: Reinhart and Reuland (1993), Lidz (1996, 2001a,b) and Liu (2003). I applied the three analyses to Japanese and I have concluded that (a) Reinhart and Reuland's analysis is not applicable to Japanese because their way of anaphor classification does not apply to Japanese and that (b) the application

of Lidz's and Liu's analyses explains the behavior of the reflexive anaphors in Japanese.

In Chapter 4, I have made two proposals. My first proposal is that anaphors in languages are classified into two subtypes as 'Pure reflexive anaphors' and 'Near reflexive anaphors' (Lidz, 1996, 2001a,b) based on their semantic property. My second proposal is that there is a parametric variation with respect to the two-type distinction of reflexive anaphors among languages, observing several languages from different language families. In languages like Japanese, anaphors in the form of affix are Pure reflexive anaphors, while non-affixal anaphors are Near reflexive anaphors. On the other hand, in languages like Dutch, the morphological composition (complexity) of anaphor corresponds to the two-type anaphor distinction. I have considered why such variation arises. Although I do not have an answer for the question, I pointed out the relation between anaphor classification and complexity of anaphors is vital. Also, giving the data of the crosslinguistic tendency that Pure reflexive anaphors cannot carry stress, I pointed out the importance of the relation between anaphor classification and stressability.

In Chapter 5, I have considered how the type of reflexive and the type of predicate relate. In considering reflexives, it is important to understand the properties of reflexive anaphors, but it is also essential to comprehend the properties of predicates that occur with an anaphor. Several studies have demonstrated that the availability of local binding of an anaphor depends on the property of its cooccuring predicate (Reinhart and Reuland, 1993, Aikawa, 1993, Bergeton, 2004, among others). I have proposed a way to categorize predicates in Japanese into subtypes based on the analysis in Bergeton (2004) as reflexive predicates, anti-reflexive predicates, neutral predicates and hidden neutral predicates.

By separating genuine reflexive anaphors from elements that are confounded as anaphors, classifying reflexives further into Pure reflexive and Near reflexive types, and revealing the types and properties of predicates, I have proposed an answer to one of the unsolved questions in the research of reflexives in Japanese: *zibun* 'self' cannot take a local antecedent when it occurs with a certain type of verb. Although some previous works attribute this unavailability of local antecedent to the status of *zibun* and claim that *zibun* in this instance is a pronoun, I have demonstrated that *zibun* in this case is also a reflexive anaphor that requires a local antecedent. I have proposed that the anaphor *zibun* is not compatible with verbs that evokes a presupposition of non-identity or non-reflexivity between their arguments, if *zibun* is read under Pure reflexive interpretation and implies identity with its antecedent, because the meaning of verb conflicts with the meaning of *zibun*. I have shown that the combination of these verbs and *zibun* is acceptable (a) when *zibun* is read under Near reflexive interpretation, because the meaning conflict does not occur, (b) when *zibun* takes the adnominal intensifier *-zísin* '-Self' and when the subject-oriented intensifier *zibun-de* 'by oneself' is inserted, because the additional meanings added by these elements counteract the non-identity requirement of the verb and cancels the meaning conflict, and (c) when *zibun* carries a contrastive stress for the same reason with the (b) case.

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