

6 Reflexives

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0 Introduction

This chapter concerns the binding behavior of Japanese reflexives. Reflexives are used to express one's reflexive action or state. For instance, sentence (1a), in which the English reflexive *himself* occurs as the object, expresses John's reflexive action, that is, "blaming himself." Reflexivization is normally captured through the use of reflexive pronouns. Compare (1a) with (1b–c).

- (1) a. John_i blamed himself_i.
b. *John_i blamed John_i.
c. *John_i blamed him_i.

In (1b), the subject NP is repeated as the object, and in (1c), the pronominal is used as the object. In both cases, reflexive reading is not possible.

Japanese employs three different types of reflexive words: (i) *zibun* "self," which is morphologically simplex, (ii) *zibun-zisin*, which is composed of *zibun* and *zisin* "self," and (iii) *kare-zisin*, which is composed of the pronominal *kare* "he" and *zisin*. Examples of these three reflexive words are given in (2a–c).

- (2) a. Taro_i-ga zibun_i-o semeta.
Taro-Nom self-Acc blamed
b. Taro_i-ga zibun-zisin_i-o semeta.
Taro-Nom self-self-Acc blamed
c. Taro_i-ga kare-zisin_i-o semeta.
Taro-Nom he-self-Acc blamed
"Taro_i blamed himself_i."

Although Japanese employs the three different reflexives, the literature concerning reflexivization has paid much attention to *zibun*. There are several

reasons for this. First, *zibun* exhibits a number of properties different from English reflexives. For instance, consider (3) and (4).

- (3) a. Taro_i-ga [Ziroo_j-ga zibun_{i/j}-o semeta to] itta.
 Taro-Nom Ziro-Nom self-Acc blamed Comp said
 "Taro_i said that Ziro_j blamed self_{i/j}."
 b. John_i said that Bill_j blamed himself_{i/j}.
- (4) a. Taro_i-ga Ziroo_j-ni zibun_{i/j}-nituite hanasita.
 Taro-Nom Ziro-Dat self-about told
 "Taro_i told Ziro_j about self_{i/j}."
 b. John_i told Bill_j about himself_{i/j}.

In (3a), the matrix subject *Taro* as well as the embedded subject *Ziro* can serve as the antecedent of *zibun*. This means that *zibun* and its antecedent do not have to be in the same clause. In English, by contrast, a reflexive word and its antecedent must be in the same clause, as shown in (3b).

The data in (4), on the other hand, concern the difference between *zibun* and English reflexives with respect to the type of antecedent NP. As in (4a), *zibun* can take only a subject NP as its antecedent. English reflexives do not exhibit such a property as shown in (4b). We will see more differences between *zibun* and English reflexives in section 1.

Another reason why *zibun*-binding has received much attention is that it is claimed to involve pragmatic or discourse factors, not just syntactic ones.¹ As we just saw in (4a), *zibun* is assumed to take only the subject as its antecedent. This subject antecedent condition on *zibun*-binding, however, can be suspended in certain contexts. Take, for instance, the case in (5).

- (5) *Taro_i-wa zyuunen mae-ni Mary-ga zibun_i-o tazunete-itta ie-de
 Taro-Top ten years ago Mary-Nom self-Acc visit-went house-in
 mada kurasite-iru.
 still live-ing
 "Taro_i is still living in the house where Hanako went to visit him_i ten years ago." (Kuno 1978b: 206)

In (5), *zibun* takes the subject NP *Taro* as its antecedent. The ungrammaticality of (5) then contradicts the subject antecedent condition. To account for such binding behavior of *zibun*, a number of analyses that resort to pragmatic notions like empathy, perspective, and logophoricity have been explored. *Zibun*-binding thus has invoked not only syntactic analyses but also pragmatic or discourse ones, and the debate concerning which approach is more appropriate has been found extensively in the literature.²

Furthermore, *zibun*-binding is used as a diagnostic test for subjecthood in Japanese and it plays a crucial role for analyses of other syntactic phenomena such as passives and causatives. For instance, consider (6).

- (6) a. Taro_i-ga Yosiko_j-o zibun_{i/j}-no heya-de hatarak-ase-ta.
 Taro-Nom Yosiko-Acc self-Gen room-in work-Cause-Past
 "Taro_i made Yosiko_j work in self_{i/j}'s room."
 b. Taro_i-ga Yosiko_j-ni zibun_{i/j}-no ofisu-de nak-are-ta.
 Taro-Nom Yosiko-Dat self-Gen office-in cry-Passive-Past
 "Taro_i was adversely affected by Yoshiko_j's crying in self_{i/j}'s room."

(6a) involves the causative construction and (6b) involves the indirect passive construction. In both examples, *zibun* can be bound to the nonsubject *Yoshiko* (as well as to the subject *Taro*). Given the subject antecedent condition, this suggests that *Yoshiko* bears subjecthood, although it is not marked by the nominative case *-ga*. On the basis of the binding behavior of *zibun* as in (6), researchers have argued that causatives and indirect passives in Japanese are underlyingly complex as schematized in (7) (Kuno 1973, K. Inoue 1976b, Shibatani 1973a, 1976, among others).

- (7) a. [_S Taro [_S Yosiko zibun-no heya-de hatarak-] -aseta]
 b. [_S Taro [_S Yosiko zibun-no ofisu-de nak-] -areta]

Given the underlying structures in (7), the nonsubject NP *Yoshiko* in (6) counts as a subject and hence it can serve as the antecedent of *zibun*. As shown, *zibun*-binding involves a number of issues, both syntactic and pragmatic. In addition, *zibun*-binding plays a crucial role for syntactic analyses of various constructions, and it is one of the most studied topics in Japanese linguistics.

The organization of this chapter is as follows: in section 1, I examine basic properties of *zibun*, while pointing out theoretical issues pertinent to *zibun*-binding. Section 2 reviews some syntactic analyses of *zibun*-binding that have been explored under the framework of Government and Binding Theory (N. Chomsky 1981a). In section 3, I discuss previous studies of *zibun*-binding that resort to pragmatic notion(s). In section 4, I examine the nature of the two Japanese complex reflexives (i.e. *zibun-zisin* and *kare-zisin*). Section 5 discusses remaining problems concerning Japanese reflexives.

1 *Zibun* "Self"

1.1 *Basic properties of zibun*

Zibun is considered to be the most representative reflexive word in Japanese. As was mentioned briefly above, *zibun* exhibits a number of properties that are different from English reflexive words. First, *zibun* lacks specification of person, gender, and number features (i.e. phi-features). For instance, any subject NP in (8) can serve as the antecedent of *zibun*.³ English reflexives, by contrast, must agree in their phi-features with their antecedents as indicated by the English translation.

- (8) Watasi_i/Taro_j/Hanako_k/[_{NP}Taroo-to Hanako]_l-ga zibun_{i/j/k/l}-o semeta.
 I /Taro /Hanako/ Taro-and Hanako-Nom self-Acc blamed
 "I_i/Taro_j/Hanako_k/[Taroo and Hanako]_l blamed myself_i/himself_j/herself_k/
 themselves_l."

Second, only an animate NP can serve as the antecedent of *zibun*. English, by contrast, has the reflexives, *itself* and *themselves*, for inanimate antecedents. Consider (9), which is drawn from Kuno (1972b: 178).

- (9) a. *Rekisi_i-wa zibun_i-o kurikaesu.
 history-Top self-Acc repeat
 "History_i repeats itself_i."
 b. *Sono sinbun_i-wa kaze-ni zibun_i-o hirogeta.
 that newspaper-Top wind-in self-Acc unfolded
 "The newspaper_i unfolded itself_i in the wind."

(9a–b) are ungrammatical because the inanimate NPs *rekisi* "history" and *sono sinbun* "that newspaper" antecede *zibun*, respectively.

Third, as we saw in (3) above, *zibun* and its antecedent do not have to be in the same clause, but English reflexives do. (3) is repeated as (10) below.

- (10) a. Taro_i-ga [Ziroo_j-ga zibun_{i/j}-o semeta to] itta.
 Taro-Nom Ziro-Nom self-Acc blamed Comp said
 "Taro_i said that Ziro_j blamed self_{i/j}."
 b. John_i said that Bill_j blamed himself_{i/j}.

In (10a), *zibun* can be bound by the matrix subject *Taro* (as well as the embedded subject *Ziro*). Cases where a reflexive takes its antecedent outside its local domain are called long-distance binding (LD-binding). English reflexives cannot participate in LD-binding as shown in (10b).

Fourth, as seen in (4), the antecedent of *zibun* must be the subject (Kuroda 1965a). English reflexives are not subject to such a constraint. (4) is repeated as (11).

- (11) a. Taro_i-ga Ziroo_j-ni zibun_{i/j}-nituite hanasita.
 Taro-Nom Ziro-Dat self-about told
 "Taro_i told Ziro_j about himself_{i/j}."
 b. John_i talked to Bill_j about himself_{i/j}.

Fifth, *zibun* can participate in discourse-binding as illustrated in (12) (Oshima 1979, Koster 1982, Fukui 1984, among others).

- (12) A: John_i-ga dareka-o soko-ni okutta n-desu-ka?
 B: Iie, zibun_i-ga itta n-desu.
 A: "Did John_i send someone there?"
 B: *"No, himself_i (= John) went (there)." (Fukui 1984: 40 with modification)

Zibun in utterance B can refer to *John*, which is introduced in the previous discourse. English reflexives are not allowed to participate in discourse-binding as shown by the ungrammaticality of the English translation.

Sixth, in some dialects of Japanese, *zibun* can be used as the first person pronoun "I" or the second person pronoun "you."⁴ This is illustrated in (13) (Gunji 1987, Aikawa 1993, Iida 1996).

- (13) a. Masao-ga zibun-o semeta.
 Masao-Nom self-Acc blamed
 "Masao_i blamed himself_i/me."
 b. Yosiko-zyanakute, zibun-ga warui-n-zyanai!
 Yosiko-not self-Nom bad it is that
 "It's you, not Yoshiko, who is bad!"

Zibun in (13a–b) can be understood to be the speaker of the sentence and the addressee, respectively. English reflexives, *myself* and *yourself*, do not have such pronominal usage.

Seventh, unlike English reflexives, *zibun* can occur in the possessor position of an NP or in the subject position of an embedded clause as in (14).

- (14) a. Taro_i-ga [_{NP} zibun_i-no sensee]-o nagutta.
 Taro-Nom self-Gen teacher-Acc hit
 "Taro_i hit himself_i's teacher."
 b. Taro_i-ga [_S zibun_i-ga kono kurasu-de itiban da to]
 Taro-Nom self-Nom this class-in the best be Comp
 omotte-iru.
 think
 "Taro_i thinks that himself_i is the best in this class."

Last, *zibun* can be modified by some other element. For instance, in (15a), *zibun* is modified by the demonstrative *sono* "that/such" and in (15b), it is modified by the relative clause, *kinoo Mitiko-ni tumetaku atatta* "(who) was hard on Mitiko yesterday." Both these examples are grammatical under the intended readings. Such modification is not possible for English reflexives.

- (15) (Context: Usually, Masao is nice to Mitiko but yesterday he was mean to her.)
 a. Masao_i-wa sonna zibun_i-o semeta.
 Masao-Top such self-Acc blamed
 "Masao_i blamed such himself_i."
 b. Masao_i-wa [_{NP}[_S Mitiko-ni tumetaku atatta] zibun_i]-o semeta.
 Masao-Top Mitiko-Dat was hard self-Acc blamed
 "Masao_i blamed himself_i, who was hard on Mitiko." (Aikawa 1993: 55 with modification)

As seen above, the lexical nature of *zibun* and its binding behavior are quite different from those of English reflexives. There are, however, some similarities

between *zibun* and English reflexives. One such similarity concerns the c-command requirement. Consider (16).

- (16) a. [_{NP} Taroo_i-no sensee]_j-ga zibun_{i/j}-o hihansita.
 Taro-Gen teacher-Nom self-Acc criticized
 "[Taro_i's teacher]_j criticized himself_{i/j}."
 b. [John_i's teacher]_j blamed himself_{i/j}.

In (16a), *Taro*, being embedded in the larger NP, cannot c-command *zibun*, but the whole subject NP, *Taroo-no sensee* "Taro's teacher," can. The contrast in the grammaticality of *zibun*-binding shows that when *zibun* finds its antecedent within the sentence, it observes the c-command requirement. English reflexives behave the same way in this respect, as shown in (16b).

Another similarity between *zibun* and English reflexives is that both of them are incapable of taking a split antecedent, as shown in (17).⁵

- (17) a. *Masao_i-ga Taroo_j-ni zibun_{i+j}-no koto-nituite hanasita.
 Masao-Nom Taro-Dat self-Gen things-about told
 "*Masao_i told Taro_j things about self_{i+j}."
 b. *John_i told Mary_j about themselves_{i+j}.

To sum up, *zibun* and English reflexives exhibit the following differences and similarities.

(18)	<i>Zibun</i>	English reflexives
a. Phi-feature specification	no	yes
b. Animacy requirement on the antecedent	yes	no (<i>itself/themselves</i>)
c. Local binding	yes	yes
d. LD-binding	yes	no
e. Subject orientation	yes	no
f. Discourse-binding	yes	no
g. Pronominal usage of "I" / "You"	yes	no
h. Possessor position or subject position	yes	no
i. Modification	yes	no
j. C-command requirement	yes	yes
k. Split antecedent	no	no

1.2 Two controversial issues

As we saw in section 1.1, *zibun* exhibits a number of properties different from English reflexives. Among these differences, the following two have received

much attention: LD-binding and subject orientation. One reason for this is that these two properties of *zibun* are problematic for the standard Binding Theory (BT) proposed within the framework of Government and Binding Theory (N. Chomsky 1981a). Let us briefly examine the standard BT.

The standard BT concerns the distribution of different types of NPs. Under the standard BT, all NPs are assumed to fall into one of the following three types: (i) anaphors (i.e. reflexives and reciprocals), (ii) pronominals, and (iii) R(eferential)-expressions. The distribution of these three types of NPs is assumed to be regulated by the three binding conditions stated in (19).

- (19) *The Standard Binding Theory* (N. Chomsky 1981a: 188 with some modification)
- Condition A: An anaphor must be bound in its local domain.
 Condition B: A pronominal must be free in its local domain.
 Condition C: An R-expression must be free.

Under the standard BT, α can be bound by β if and only if: (i) α and β are coindexed; (ii) β c-commands α ; and (iii) β is in an A-position. Otherwise, α is free. The definition of local domain has several different versions, but we take the one based on the notion of governing category.⁶ Informally, this version states that an NP or an S that contains an anaphoric expression α delimits the local domain for α .⁷

Now, using some English examples, let us examine how the standard BT in (19) regulates the distribution of different types of NPs. We focus on Condition A and Condition B, because only these two are relevant to our discussion about *zibun*-binding. Consider (20).

- (20) a. John_i loves himself_i/*him_i.
 b. John_i thinks [that Mary loves *himself_i/him_i].
 c. [_{NP} John_i's teacher] hit *himself_i/him_i.
 d. John_i like *herself_j(=Mary)/her_j(=Mary).

Himself/him in (20a) is locally bound by *John*. The occurrence of *himself* satisfies Condition A but the occurrence of *him* violates Condition B. In (20b), by contrast, *himself/him* is free in its local domain. The occurrence of *himself* triggers a Condition A-violation but the occurrence of *him* satisfies Condition B, resulting in the contrast. The contrast in (20c) illustrates the difference in c-command requirement between an anaphor and a pronominal. *John* in (20c), being embedded in the larger NP, fails to c-command *himself/him*. Thus, *himself/him* is not bound by *John*. *Himself* triggers a Condition A-violation but *him* satisfies Condition B. (20d) is an instance of discourse-binding: *herself/her* receives the discourse referent of *Mary*, and these expressions are free. Thus, *herself* triggers a Condition A-violation and *her* satisfies Condition B.

Returning to *zibun*-binding, the fact that *zibun* can participate in LD-binding as well as in local binding is problematic for the standard BT. The possibility

of local binding of *zibun* indicates that *zibun* is subject to Condition A and it should be categorized as anaphor. On the other hand, the possibility of LD-binding of *zibun* indicates that *zibun* is subject to Condition B and it should be categorized as pronominal. In short, *zibun* sometimes behaves like an anaphor and sometimes like a pronominal. The standard BT presumes that anaphoric expressions fall into either the category of anaphor or that of pronominal, but not both. Regardless of how *zibun* is categorized, the standard BT cannot provide a satisfactory explanation for this paradoxical nature of *zibun*.

The standard BT also fails to explain the subject orientation because neither Condition A nor Condition B makes any reference to the notion of subjecthood. The two properties of *zibun* mentioned above thus pose serious problems for the standard BT.

The subject orientation of *zibun* has invited yet another debate. As mentioned earlier in (5), the subject antecedent condition on *zibun*-binding faces many counterexamples and its validity is still controversial. (21) presents some counterexamples.

- (21) a. [_S Zibun_i-ga gan kamo sirenai koto]-ga Hiroshi_i-o
 self-Nom cancer may Comp-Nom Hiroshi-Acc
 nayam-ase-ta.
 worry-make-Past
 "That he_i might have cancer worried Hiroshi_i," (N. A. McCawley 1976: 63)
- b. *John_i-wa Mary-ga zibun_i-o korosita toki, Jane-to
 John-Top Mary-Nom self-Acc killed when Jane-with
 nete-ita.
 was sleeping
 "*John_i was in bed with Jane when Mary killed him_i," (Kuno 1973: 310)

In (21a), *zibun* is bound to the nonsubject NP, and yet the sentence is grammatical. On the other hand, in (21b), *zibun* is bound to the subject NP, but *zibun*-binding is ungrammatical.⁸ These examples are thus problematic for the subject antecedent condition. In fact, such counterexamples are numerous, and many researchers have argued that the nature of *zibun*-binding cannot be fully explained in terms of syntax, and pragmatic factors must be taken into consideration for understanding *zibun*-binding (Kuno 1973, 1978a, Kuroda 1973, Kuno and Kaburaki 1977, Kameyama 1984, 1985, Iida and Sells 1986, Gunji 1987, Sells 1987, Iida 1996, among others). Recall here that *zibun*-binding is used as a diagnostic test for subjecthood in Japanese and analyses of other syntactic phenomena make crucial reference to *zibun*'s subject orientation. Thus, the issue of whether the antecedent condition on *zibun*-binding should be captured in terms of the syntactic notion of subjecthood or in terms of some pragmatic notion(s) is an important one. I will discuss this controversial status of subject orientation in more detail in section 3.

2 Syntactic Analyses of *Zibun*-Binding

We now start examining analyses of *zibun*-binding. In this section, we restrict our attention to those that have been proposed within the framework of Government and Binding Theory (GB) (N. Chomsky 1981a). As mentioned in section 1.2, the paradoxical nature of *zibun* as an anaphor and a pronominal has invited much debate, and the status of *zibun* is still controversial. For this reason, we focus on two types of analyses: (i) those that categorize *zibun* as pronominal, as discussed by Fukui (1984) and Ueda (1986), and (ii) those that categorize *zibun* as anaphor, as in Katada (1988, 1991) and Aikawa (1993).⁹

2.1 *Zibun* as a pronominal: Fukui (1984) and Ueda (1986)

Fukui (1984) and Ueda (1986) argue that LD-binding and discourse-binding of *zibun* indicate that *zibun* bears pronominal-like properties. These two analyses, although implemented with different mechanisms and assumptions, are similar in spirit. They both point toward the conclusion that *zibun* should be categorized as pronominal and that it must function as a bound variable.

Fukui (1984) argues that *zibun* is a special type of pronoun and is subject to Condition B of the standard BT.¹⁰ In addition, he proposes (22) as the antecedent condition on *zibun*-binding.

(22) *Zibun* must be bound by the closest A'-binder. (Fukui 1984: 27)

In Fukui's analysis, the subject position in Japanese, unlike that in English, is assumed to be an A'-position. (22) then can be paraphrased as saying that *zibun* must be bound by the closest subject. Note that the combination of Fukui's hypothesis that the subject position in Japanese is an A'-position and his condition in (22) implies that *zibun* must function as a bound variable: A'-positions are assumed to be operator positions (cf. N. Chomsky 1981a, 1982) and what is bound by an element in such a position is supposed to function as a bound variable.

Fukui explains local binding of *zibun* in (23) as follows: *Hanako* in (23) is in an A'-position and it is the closest A'-binder for *zibun*. *Zibun*-binding to *Hanako* thus satisfies (22), resulting in grammaticality.

(23) Hanako_i-ga zibun_i-o hihansita.
 Hanako-Nom self-Acc criticized
 "Hanako_i criticized SELF_i."

Note that Condition B concerns only cases of A-binding. *Zibun*-binding to *Hanako* in (23) is an instance of A'-binding because *Hanako* is an A'-binder, and so Condition B is not applicable.

Next, consider (24), in which *zibun* in the embedded clause is LD-bound by the matrix subject.

- (24) a. Taro_i-ga [zibun_i-ga tensai da to] omotte-iru.
 Taro-Nom self-Nom a genius be Comp think
 "Taro_i thinks that he_i is a genius."
 b. Taro_i-ga [Hanako-ga zibun_i-o hihansita to] omotte-iru.
 Taro-Nom Hanako-Nom self-Acc criticized Comp think
 "Taro_i thinks that Hanako criticized him_i."

In (24a), *zibun* occurs in the subject position of the embedded clause. The closest A'-binder for this *zibun* is the matrix subject *Taro*. *Zibun*-binding to *Taro* thus satisfies (22), resulting in grammaticality. In (24b), on the other hand, the embedded subject *Hanako* intervenes between *zibun* and the matrix subject. But according to Fukui, this embedded subject is assumed to be in an A-position.¹¹ The matrix subject *Taro*, but not the embedded subject *Hanako*, counts as the closest A'-binder for *zibun*.¹² Hence, *zibun*-binding to *Taro* in (24b) is grammatical.

Ueda (1986) also argues for the position that *zibun* should be categorized as pronominal. Ueda's characterization of *zibun*, however, is somewhat different from Fukui's. He argues that *zibun* is inherently a bound pronominal. In Ueda's analysis, pronominals are divided into two types: bound pronominals, which have the features of [-anaphor, +pronominal, +bound], and nonbound pronominals, which have the features of [-anaphor, +pronominal, -bound] (cf. N. Chomsky 1982).¹³ Ueda claims (1986: 94) that Japanese has two different forms of (overt) pronominals: *zibun*, which bears the features of [-anaphor, +pronominal, +bound], and *kare*, which bears the features of [-anaphor, +pronominal, -bound]. He supports this hypothesis by presenting data such as (25-7). First, consider (25), which involves the quantifier phrase (QP) antecedent, *daremo* "everyone."

- (25) a. Daremo_i-ga [zibun_i-ga sono siken-ni gookaku-suru
 everyone-Nom self-Nom that exam.-Dat pass
 to] sinzite-iru.
 Comp believe
 b. *Daremo_i-ga [kare_i-ga sono siken-ni gookaku-suru
 everyone-Nom he-Nom that exam.-Dat pass
 to] sinzite-iru.
 Comp believe
 "Everyone_i believes that he_i will pass that exam." (Ueda 1986: 92
 with modification)

QPs do not refer to any specific individuals, and so pronominals cannot be coreferential with them (cf. Geach 1972). Thus, when a QP occurs as the antecedent of a pronoun, that pronoun is forced to be construed as a bound variable.

The contrast in grammaticality between (25a) and (25b) then shows that *zibun* can be construed as a bound variable, but *kare* cannot (S. Martin 1975, Nakai 1976, Oshima 1979, C. Kitagawa 1981, M. Nakayama 1982, Saito and Hoji 1983, Aoun and Hornstein 1986, Hoji 1989, 1990, among others). This is consistent with Ueda's hypothesis above.

Next, consider (26–7), which involve the so-called sloppy identity of pronominals (Sag 1976, Reinhart 1983, among others).

- (26) John_i called his_i mother and Bill, too.
- a. on the bound variable reading of *his* → sloppy reading
John called John's mother and Bill called Bill's mother, too.
 - b. on the coreference reading of *his* → strict reading
John called John's mother and Bill called John's mother, too.
- (27) a. John_i-wa zibun_i-ga katte-iru inu-o naguru to, Bill-mo soo sita.
John-Top self-Nom keep-ing dog-Acc hit when Bill also so did
"When John_i hit the dog he_i kept, Bill did so, too."
(sloppy) "When John hit the dog John kept, Bill hit the dog Bill kept, too."
- b. John_i-wa kare_i-no kuruma-ni notta. Bill-mo soo sita.
John-Top he-Gen car -in rode Bill also so did
"John_i got in his_i car. Bill did so, too."
*(sloppy) "John got in John's car. Bill got in Bill's car, too." (Ueda 1986: 97)

(26) illustrates the sloppy identity test of the English pronoun *his*. The VP in the first conjunct of (26) is assumed to be copied onto the elided VP in the second conjunct. If the pronoun *his* is construed as a bound variable, the predicate of "*x* called *x*'s mother" is copied, resulting in the interpretation of (26a). This type of reading is called sloppy reading. By contrast, if *his* is simply coreferential with *John*, the predicate of "*x* called John's mother" is copied, resulting in the interpretation of (26b).¹⁴ This type of reading is called strict (or nonsloppy) reading. To put these together, variable binding of a pronoun induces sloppy reading whereas coreference of a pronoun induces strict reading, and the availability of sloppy reading tells us whether the pronoun in question can be a bound variable.

Returning to Ueda's analysis, he argues that the result of the sloppy identity test of *zibun/kare* in (27) supports his hypothesis: *zibun* can induce sloppy reading but *kare* cannot. Thus, *zibun* is a [+bound] pronominal and *kare* is a [-bound] pronominal.¹⁵

In Ueda's analysis, the inherent [+bound] feature of *zibun* plays an important role in accounting for subject orientation. He assumes with Williams (1980) that pronominals can be construed as bound variables only when they are bound by an element that can serve as the subject of predication.¹⁶ He argues

that a subject NP is one of the elements that can serve as the subject of predication and from this, subject orientation follows.

LD-binding, on the other hand, is expected because in Ueda's analysis, *zibun* is categorized as pronominal. But *zibun*'s ability to participate in local binding is problematic (as he admits). While Ueda essentially leaves this problem open, he makes an interesting observation concerning local binding of *zibun*. Compare (28a) and (28b) below, which are drawn from Ueda (1986).

- (28) a. John_i-wa zibun_i-o nikunde-iru/semeta.
 John-Top self-Acc hate /blamed
 "John_i hates/blamed himself_i," (Ueda 1986: 100)
- b. *John_i-wa zibun_i-o nagutta/ketta.
 John-Top self-Acc hit /kicked
 "John_i hit/kicked himself_i," (Ueda 1986: 105; originally from Oshima 1979: 425)

As shown above, local binding of *zibun* is sometimes good but sometimes bad (cf. N. A. McCawley 1976, Oshima 1979). Ueda notes that there is a semantic difference between verbs such as in (28a) and those in (28b): the former involves physical activity whereas the latter involves activity of a more abstract sort. He suggests that "*zibun* is exempt from the Binding Theory (B) when the verb of the clause in which *zibun* occurs represents abstract activity" (Ueda 1986: 107). We will come back to this issue later in section 5.

It is important to note that both Fukui and Ueda base their antecedent conditions on the observation that *zibun* can be bound not only by a subject NP but also by an element like a topic NP or a discourse referent. In Fukui's analysis, these potential binders of *zibun* are identified as A'-binders, whereas in Ueda's, they are identified as elements that can serve as the subject of predication. Take, for instance, *zibun*-binding to a discourse referent. Both Fukui and Ueda assume with Huang (1984) that Japanese has an empty topic and this empty topic is coindexed with some salient discourse referent as shown in (29).

- (29) [_{Top} e_i] [_S zibun_i . . .] OP_i] (where "i" is the index of a discourse referent)

Given Fukui's analysis, discourse-binding of *zibun* in (29) is possible because *zibun* is bound by the closest A'-binder (i.e. the empty topic), whereas given Ueda's, it is possible because the empty topic, just like a regular topic NP, can serve as the subject of predication. Fukui's antecedent condition and Ueda's, although stated differently, are thus quite similar.

Fukui's analysis and Ueda's are also similar in that they both use data involving subject-object asymmetries of *zibun*-binding as supporting evidence. For instance, examine (30), which involves binding of *zibun* that occurs in an adjunct clause.

- (30) a. Taro_i-wa [zibun_i-ga Ziroo-o hometa] toki, Hanako-no
Taro-Top self-Nom Ziro-Acc praised when Hanako-Gen
soba-ni ita.
near was
“Taro_i was near Hanako when he_i praised Ziro.”
- b. *Taro_i-wa [Ziroo-ga zibun_i-o hometa] toki, Hanako-no
Taro-Top Ziro-Nom self-Acc praised when Hanako-Gen
soba-ni ita.
near was
“Taro_i was near Hanako when Ziro praised him_i.” (Ueda 1986: 99–100 with modification)

As noted by Kuroda (1965a), *zibun*-binding in an adjunct clause exhibits a subject–object asymmetry: the binding of the subject *zibun* by *Taro* in (30a) is grammatical but that of the object *zibun* in (30b) is not. Such subject–object asymmetry does not arise when *zibun* occurs in a complement clause as in (31).

- (31) a. Taro_i-wa [[zibun_i-ga Ziroo-o hometa] koto]-o oboete-iru.
Taro-Top self-Nom Ziro-Acc praised Comp-Acc remember
“Taro remembers that he praised Ziro.”
- b. Taro_i-wa [[Ziroo-ga zibun_i-o hometa] koto]-o oboete-iru.
Taro-Top Ziro-Nom self-Acc praised Comp-Acc remember
“Taro remembers that Ziro praised him.” (Ueda 1986: 100 with modification)

In accounting for such subject–object asymmetries, both Fukui and Ueda make reference to the distinction between a governed S and an ungoverned S. In Fukui’s analysis, this distinction is reflected in the A/A’-distinction of their subject positions: that is, the subject position of a governed S is an A-position whereas that of an ungoverned S is an A’-position (see n. 11). Given Fukui’s analysis, *zibun*-binding to *Taro* in (30b) violates (22) because the embedded subject *Ziro* serves as the closest A’-binder for *zibun*, but the one in (31b) does not because *Ziro* here is in an A-position and therefore *Taro* counts as the closest A’-binder for *zibun*. Accordingly, there is a subject–object asymmetry in (30), but not in (31).

In Ueda’s analysis, such subject–object asymmetries are explained on the basis of the hypothesis that “the predicate of an ungoverned clause is opaque to the binding of the overt pronominal, i.e. indices other than that of its own subject are unavailable for this purpose” (Ueda 1986: 100).¹⁷ Given this, the predicate of the adjunct clause in (30b) is assumed to be opaque to binding of the object *zibun*. This amounts to saying that the index of the matrix subject *Taro* is not available for the object *zibun* and hence *zibun*-binding to *Taro* is ungrammatical. The predicate of the complement clause in (31b), on the other hand, is not subject to his condition above. Accordingly, the binding of the object *zibun* by *Taro* in (31b) is possible, resulting in the absence of subject–object asymmetry.

2.2 Zibun as an anaphor: Katada (1988, 1991) and Aikawa (1993)

We now move to the other two proposals of *zibun*-binding that treat *zibun* as an anaphor. They both assume certain LF-mechanisms to explain subject orientation and LD-binding and in this respect, they can be characterized as LF-analyses of *zibun*-binding.¹⁸

Katada (1988, 1991) argues that *zibun* is an operator anaphor and it raises at LF. She contends that the lack of phi-feature specification of *zibun*, which we saw earlier in (8), implies that *zibun* possesses a “semantic range”: just like other operators such as *who/everyone*, *zibun* picks a [+human] referent. She argues that this lexical nature of *zibun* licenses *zibun* to raise at LF. In her analysis, *zibun* is assumed to raise to higher position(s) through VP-adjunction. Examine (32), which schematizes Katada’s LF-analysis of *zibun*.

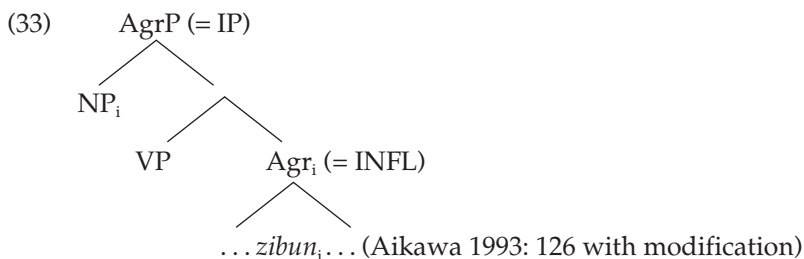
- (32) John_i-ga [S Bill_j-ga Mary_k-ni zibun_{i/j/*k}-no koto-o hanasita
 John-Nom Bill-Nom Mary-Dat self-Gen things-Acc told
 to] omotte-iru.
 Comp thinks
 “John thinks that Bill told Mary things about self.”
- a. LF for the coindexation between Bill_j-zibun_j
 [John-Nom . . . [S Bill_j-Nom [VP zibun_j [VP Mary-Dat . . . t_j]]]]
- b. LF for the coindexation between John_i-zibun_i
 [John_i-Nom [VP zibun_i [VP [S Bill-Nom . . . [VP Mary-Dat . . . t_i]]]]]]

(32a) involves the LF-raising of *zibun* to the VP in the embedded clause and (32b) involves the LF-raising of *zibun* to the VP in the matrix clause.¹⁹ In both cases, *zibun* is bound by the closest c-commanding antecedent (i.e. *Bill_j* in the case of (32a) and *John_i* in the case of (32b)). Thus, not only *zibun*-binding to *Bill* but also *zibun*-binding to *John* satisfies Condition A. Katada argues that this LF-movement of *zibun* makes it possible for *zibun* to participate in LD-binding.

As for subject orientation, she explains it on the basis of the asymmetric c-command relation displayed by subject NPs and nonsubject NPs with respect to *zibun*’s landing site(s). For instance, consider the LF-movement of *zibun* in (32a). After having adjoined to the embedded VP, *zibun* can be c-commanded by the embedded subject *Bill*, but not by the dative NP *Mary*. Hence, *Bill* can antecede *zibun* but *Mary* cannot.

Aikawa (1993), on the other hand, explores an LF-analysis of *zibun* that does not involve any LF-movement of *zibun*. Following Reinhart and Reuland (1991, 1992), she argues that the lack of phi-feature specification in *zibun* forces *zibun* to be associated with Agr (= INFL) at LF: in order for *zibun* to be

interpreted, *zibun* must receive phi-features (Bouchard 1984). Agr is the only head that can provide phi-features for *zibun*. She proposes that *zibun* is to be bound to the first accessible Agr (= INFL) at LF so that it can receive phi-features.²⁰ Examine (33), which schematizes Aikawa's analysis of *zibun*.



In her analysis, *zibun*-binding to the subject NP in (33) occurs in two steps. First, Agr receives the index of the subject NP through spec-head agreement (N. Chomsky 1992).²¹ Then, this index is assigned to *zibun* by virtue of *zibun* being bound to Agr. Thus, contrasting with Katada, Aikawa explains subject orientation on the basis of the association between *zibun* and Agr through binding.

Aikawa's explanation of LD-binding also contrasts with Katada's. Recall that under Katada's analysis, LF-raising of *zibun* through VP-adjunction makes it possible for *zibun* to participate in LD-binding. Aikawa's analysis, by contrast, does not invoke any LF-movement of *zibun*. In her analysis, LD-binding of *zibun* is explained on the basis of the mechanism of Agr-chain, which is advanced by Progovac (1992). Following Progovac, she argues that Agr's in Japanese are anaphoric to each other (cf. Borer 1986) and they can form an Agr-chain. This Agr-chain then allows the index of a remote antecedent to be transferred from the Agr associated with the antecedent in question to the Agr closest to *zibun*. As a result, LD-binding of *zibun* becomes possible. Consider, for instance, (34), in which the previous example of (32) is analyzed on the basis of Aikawa's system.

- (34) a. John_i-ga [_s Bill_j-ga Mary_k-ni *zibun*_{i/j/*k}-no koto-o hanasita
John-Nom Bill-Nom Mary-Dat self-Gen things-Acc told
to] omotte-iru.
Comp thinks
"John thinks that Bill told Mary things about self."
- b. [John_i Agr₂ [Bill_j Agr₁ Mary_k *zibun*_{i/j/*k} V] V]

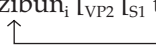
Agr-chain *zibun*-binding to the first accessible Agr (= (33))

Zibun-binding to the embedded subject *Bill* can be explained on the basis of (33): the index of *Bill* (i.e. *j*) is assigned to Agr₁ through spec-head agreement, and *zibun*, by virtue of its being bound to Agr₁, receives this index, resulting in

the grammaticality of *zibun*-binding to *Bill*. LD-binding of *zibun* by the matrix subject *John*, on the other hand, involves the Agr-chain composed of Agr1 and Agr2: Agr1 and Agr2, being anaphoric to each other, form an Agr-chain. The index of *John* is first assigned to Agr2 through spec-head agreement and then it is transmitted to Agr1 through the Agr-chain. *Zibun* is bound to Agr1 and *zibun*-binding to *John* is grammatical. Note that the dative NP *Mary* cannot be a potential antecedent for *zibun* because *Mary* is not in spec of Agr1, and so its index is not assigned to Agr1. There is no way for *zibun* to receive the index of *Mary*.

As shown, both Katada and Aikawa utilize LF-mechanisms so that *zibun*-binding can conform to Condition A. In Katada's analysis, LF-raising of *zibun* through VP-adjunction allows *zibun* to be associated with a remote antecedent without violating Condition A, and hence LD-binding of *zibun* becomes possible. This LF-raising also explains subject orientation: the landing site of *zibun* at LF can be c-commanded only by subject NPs, not by nonsubject NPs. Accordingly, *zibun* exhibits the property of subject orientation. In Aikawa's analysis, on the other hand, the mechanism of an Agr-chain allows the binding domain of *zibun* to extend up to some remote antecedent, so that LD-binding of *zibun* becomes possible without violating Condition A. As for subject orientation, she ascribes it to the defective nature of *zibun*: the lack of phi-feature specification in *zibun* forces *zibun* to be associated with Agr for interpretation. *Zibun*, being bound to Agr, then is expected to receive its referent from the subject.

It is hard to assess which LF-analysis would be more viable, because the two analyses above are based on different assumptions and implemented with different LF-mechanisms. However, we wish to point out one problem with Katada's analysis, which has been noted by Hoji (1990). Katada utilizes LF-raising of *zibun* to explain *zibun*'s properties of subject orientation and LD-binding. Thus, for her, it is crucial to show that *zibun* actually raises in LF. Katada, in fact, presents data such as those in (35) as evidence for this hypothesis.

- (35) a. ?*[John_i-ga [_{S1} zibun_i-ga kare_i-no hahaoya-o semeta to] itta].
 John-Nom self-Nom he-Gen mother-Acc blamed Comp said
 "John_i said that zibun_i blamed kare_i's mother." (Katada 1991: 304)
- b. [_{S2} John_i [_{VP2} zibun_i [_{VP2} [_{S1} t_i [_{VP1} . . . kare_i . . .]]]]]


Given Katada's LF-analysis, *zibun* in the embedded subject position of (35a) is assumed to adjoin to the VP in the matrix clause as in (35b). She assumes that once *zibun* moves to an A'-position, it must stay in that position (Katada 1991: 303). She ascribes the ungrammaticality of (35a) to *kare*'s inability to participate in A'-binding: *zibun*, which in an A'-position, A'-binds *kare*. But *kare* cannot be A'-bound, resulting in ungrammaticality. The problem is, as Hoji (1990) points out, that Katada's analysis above incorrectly predicts a sentence like (36b) to be grammatical.

- (36) a. Daremo_i-ga soitu_i-no hahaoya-o semeta.
 everyone-Nom that guy-Gen mother-Acc blamed
 "Everyone_i blamed that guy_i's mother."
 b. *?[John_i-ga [zibun_i-ga soitu_i-no hahaoya-o semeta
 John-Nom self-Nom that guy-Gen mother-Acc blamed
 to] itta].
 Comp said
 "John_i said that zibun_i blamed soitu_i's mother."
 c. [_{S2} John_i [_{VP2} zibun_i [_{VP2} [_{S1} t_i [_{VP1} . . . soitu_i . . .]]]]]

The sentences in (36) involve the demonstrative *soitu* "that guy." The grammaticality of (36a), in which *soitu* is bound by the QP antecedent *daremo* "everyone," simply shows that *soitu* can be a bound variable. (36b) is parallel to (35a) except that in (36b), *soitu* occurs in place of *kare*. If the ungrammaticality of (35a) were due to *kare*'s inability to participate in A'-binding as Katada argues, (36b) should be grammatical because *soitu* can participate in A'-binding. But this is not the case. The ungrammaticality of (36b) thus casts doubt on Katada's essential point that *zibun* raises at LF.²²

3 Pragmatic/Discourse Approach to *Zibun*-Binding

As seen above, under the syntactic approach to *zibun*-binding, subjecthood condition is taken for granted. However, as mentioned in section 1.2, this condition faces a number of counterexamples and its validity is still controversial. In order to fully understand the nature of *zibun*-binding, it is essential to examine in what contexts the subject antecedent condition can be suspended and what kinds of pragmatic factors are relevant to such contexts. This section surveys analyses of *zibun*-binding that resort to pragmatic notion(s).

3.1 Pragmatic factors that affect *zibun*-binding

We begin by examining in what context(s) *zibun* can take a nonsubject NP as its antecedent. Consider, first, (37), where *zibun* in the embedded clause is bound to the nonsubject *Ziro*.

- (37) Taroo-wa Ziroo_i-kara [_S Hanako-ga zibun_i-o nikunde-iru
 Taro-Top Ziro-from Hanako-Nom self-Acc hate
 to] kiita.
 Comp heard
 "Taro heard from Ziro_i (that): 'Hanako hates me_i.'"

To explain such nonsubject *zibun*-binding, Kuno (1973) argues that *zibun* can take a nonsubject NP as its referent if the clause containing *zibun* describes his or her internal feeling or thought. Given Kuno's analysis, *zibun*-binding to the nonsubject *Ziro* in (37) is possible because the embedded clause that contains *zibun* expresses *Ziro's* internal feeling. Kuno supports this hypothesis by presenting a contrast such as the one between (37) and (38).

- (38) *Taroo-ga Ziroo_i-ni [_S Hanako-ga zibun_i-o nikunde-iru to] itta.
 Taro-Nom Ziro-Dat Hanako-Nom self-Acc hates Comp said
 "Taro said to Ziro_i (that): 'Hanako hates me.'<"

According to Kuno, the interpretation of the first person pronoun in the direct quotation form of an embedded clause can tell us whose internal feeling the embedded clause in question expresses.²³ As shown by the English translations above, the first person pronoun of the direct quotation form in (37) is understood to be *Ziro*. The embedded clause in (37) represents *Ziro's* internal feeling, and *zibun*-binding to the nonsubject NP *Ziro* is possible. By contrast, in (38), the first person pronoun is understood to be *Taro*. The embedded clause represents *Taro's* internal feeling, and *zibun*-binding to *Ziro* is ungrammatical. Kuno calls this analysis the Direct Discourse Analysis of *zibun*.

Another context where *zibun* can take a nonsubject NP as its antecedent involves a psych-verb (N. A. McCawley 1976). For instance, consider (21a), repeated here as (39), which involves the psych-verb *nayamaseta* "worried."²⁴

- (39) [_{NP} [_S Zibun_i-ga gan kamosirenai koto]-ga Hiroshi_i-o
 self-Nom cancer may Comp-Nom Hiroshi-Acc
 nayamaseta.
 worried
 "That he_i might have cancer worried Hiroshi_i," (N. A. McCawley
 1976: 63)

Kuno extends the above line of analysis to *zibun*-binding with a psych-verb as in (39). Given Kuno, the constituent that includes *zibun* in (39) (i.e. the whole subject NP) represents *Hiroshi's* internal feeling. Hence, *zibun*-binding to the nonsubject NP *Hiroshi* is allowed.

The notion of logophoricity is also used to account for nonsubject *zibun*-binding cases as in (37) and (39) (Kuno 1978b, Kameyama 1984, 1985, Iida and Sells 1986, Sells 1987). A logophoric individual is understood to be someone other than the speaker whose speech, thoughts, feelings, or general state of consciousness are reported or reflected in the linguistic context in which a logophoric expression occurs (Clements 1975: 141). Kameyama (1984, 1985), for instance, explores an analysis of *zibun*-binding based on the features of [\pm sub] and [\pm log]. She argues that *zibun* can take as its antecedent either an element associated with the feature of [+sub] (a grammatical subject) or

one associated with the feature of [+log] (a logophoric individual). Given Kameyama's analysis, the nonsubject *zibun*-binding cases in (37) and (39) are explained as follows. The embedded clause containing *zibun* in (37) reflects Ziro's feeling. Thus, Ziro can be considered to be a logophoric individual and so, *zibun*-binding to Ziro is grammatical. The object NP Hiroshi in (39) is also considered to be marked as [+log] because the clause containing *zibun* reflects his feeling. Hence, *zibun*-binding to Hiroshi is grammatical.

Next, let us examine cases where *zibun*-binding to a subject NP is ruled out. First, compare (21b), repeated here as (40a), and (40b).

- (40) a. *John_i-wa Mary-ga zibun_i-o korosita toki, Jane-to
 John-Top Mary-Nom self-Acc killed when Jane-with
 nete-ita.
 was sleeping
 "John_i was in bed with Jane when Mary killed him_i." (Kuno 1973: 310)
- b. John_i-wa Mary-ga zibun_i-o korosoo to sita toki, Jane-to
 John-Top Mary-Nom self-Acc tried to kill when Jane-with
 nete-ita.
 was sleeping
 "John_i was in bed with Jane when Mary tried to kill self_i." (Kuno 1973: 309)

(40a) and (40b) are structurally parallel. But *zibun*-binding in (40a) is ungrammatical whereas that in (40b) is grammatical. The ungrammaticality of (40a), as opposed to the grammaticality of (40b), cannot be explained on the basis of the subject antecedent condition.

To explain such a contrast, Kuno (1973) proposes the Awareness Condition on *zibun*-binding, which roughly states that the referent of *zibun* must be aware of the event or situation in question.²⁵ Kuno's Awareness Condition explains the contrast between (40a) and (40b) as follows. In (40a), the verb *korosita* "killed" occurs in the *when*-clause. John could not be aware of the event that Mary killed him at the time she killed him. Accordingly, *zibun*-binding to John is ungrammatical. By contrast, in (40b), the verb *korosoo to sita* "tried to kill" occurs in the *when*-clause. John could be aware of the state that Mary tried to kill him at the time of her trying to kill him. Hence, *zibun*-binding to John is grammatical.

The notion of empathy is also claimed to affect *zibun*-binding (Kuno 1976c, 1978b, Kuno and Kaburaki 1977). Empathy concerns the issue of with whom the speaker identifies himself or herself in describing a given event or state, and it indicates the speaker's position in relation to a particular participant in the event or state described.²⁶ Kuno and Kaburaki (1977), for instance, argue that *zibun* is an empathy-loaded expression and its referent must be someone with whom the speaker empathizes. Consider, for instance, (41), which is taken from Iida (1996: 46).

- (41) a. *Taro_i-wa [Hanako-ga zibun_i-ni yatta] okane-o
 Taro-Top Hanako-Nom self-Dat gave money-Acc
 tukatte-simatta.
 use-Perfective
 "Taro_i has used the money that Hanako gave to self_i."
- b. Taro_i-wa [Hanako-ga zibun_i-ni kureta] okane-o
 Taro-Top Hanako-Nom self-Dat gave money-Acc
 tukatte-simatta.
 use-Perfective
 "Taro_i has used the money that Hanako gave to self_i."

The underlined verbs in (41) are giving verbs. Like the case in (40), (41a) and (41b) are structurally parallel. Yet, *zibun*-binding in (41a) is ungrammatical whereas *zibun*-binding in (41b) is grammatical. Kuno and Kaburaki argue that such a contrast cannot be explained on the basis of the syntactic subjecthood condition, but it can be on that of the notion of empathy. According to Kuno and Kaburaki, *yatta* "gave" in (41a) signals that the speaker empathizes with the giver (i.e. *Hanako*), whereas *kureta* "gave" in (41b) signals that the speaker empathizes with the receiver (i.e. *Taro*). In their analysis, the referent of *zibun* must be someone with whom the speaker empathizes. *Zibun*-binding to *Taro* in (41a) then shows that the speaker's empathy is with *Taro*. But this empathy relation conflicts with the one signaled by *yatta*. Accordingly, *zibun*-binding in (41a) is ungrammatical. By contrast, (41b) involves no conflict in the speaker's empathy: both *zibun*-binding and *kureta* signal that the speaker's empathy is with *Taro*. Hence, *zibun*-binding in (41b) is grammatical.

As seen above, many researchers have explored analyses that resort to different kinds of pragmatic notions. Note, however, that there is one thing in common among them, namely, they all presuppose that a pragmatic condition applies to *zibun*-binding only when the subject antecedent condition fails to explain. That is, as Iida (1996) points out, pragmatic condition(s) are considered to be secondary to the syntactic subjecthood condition, and in this respect, these analyses can be characterized as a disjunctive approach to *zibun*-binding.

3.2 *Conjunctive theory of zibun-binding: Iida (1996)*

Recently, Iida (1996) has explored an analysis of *zibun*-binding that stands out from previous studies. Her analysis stands out because it applies both a syntactic condition and a discourse condition to every instance of *zibun*-binding. Iida characterizes her analysis as a conjunctive approach to *zibun*-binding. One immediate consequence of her conjunctive approach is that the power of a syntactic condition is greatly reduced. Unlike previous analyses, Iida's syntactic condition on *zibun*-binding does not make any reference to the notion of subjecthood. Instead, it is stated in terms of a coargument relation between *zibun* and its antecedent. Informally, her syntactic condition states that *zibun*

may not take a more oblique argument as its referent.²⁷ Within the framework of Head-Driven Phrase Structure Grammar, arguments of a verb are assumed to hold a certain hierarchy of obliqueness, and a subject is assumed to be the least oblique argument. For instance, the object NP is more oblique than the subject NP in (42). Thus, *zibun*-binding in (42a), where *zibun* is bound to the less oblique argument (i.e. the subject NP), satisfies Iida's syntactic condition, but *zibun*-binding in (42b), where *zibun* is bound to the more oblique argument (i.e. the object NP), violates her condition.²⁸

- (42) a. Taro_i-ga zibun_i-o hihansita.
Taro-Nom self-Acc criticized
"Taro_i criticized self_i."
b. *Zibun_i-ga Taro_i-o hihansita.
Self-Nom Taro-Acc criticized
"Self_i criticized Taro_i."

Iida's discourse condition, on the other hand, is based on the notion of deictic perspective. She claims that "the antecedent of *zibun* is understood as the reference point which the speaker chooses in describing the situation in question" (Iida 1996: 163). Thus, in her analysis, the antecedent of *zibun* must have perspective, and *zibun*-binding signals from whose perspective the speaker is describing a given situation. Iida supports this hypothesis on the basis of similarities between the binding behavior of *zibun* and the interpretations of deictic expressions such as *migi* "(on) the right (of)." First, consider (43), which involves the deictic expression *migi*.

- (43) (Situation: Taro and Hanako are standing face to face)
Taro_i-wa Hanako_j-ni zityensya-o migi-ni ok-ase-ta.
Taro-Top Hanako-Dat bicycle-Acc right-to put-Cause-Past
a. "Taro_i made Hanako_j put the bicycle to his_i right."
b. "Taro_i made Hanako_j put the bicycle to her_j right." (Iida 1996: 164)

The deictic expression *migi* in (43) can be ambiguously interpreted either as "Taro's right" or "Hanako's right." This ambiguity, however, disappears once the sentence involves *zibun*-binding as shown in (44).

- (44) Taro_i-wa Hanako_j-ni zibun_j-no zityensya-o migi-ni ok-ase-ta.
Taro-Top Hanako-Dat self-Gen bicycle-Acc right-to put-Cause-Past
a. ??"Taro_i made Hanako_j put her_j bicycle to his_i right."
b. "Taro_i made Hanako_j put her_j bicycle to her_j right." (Iida 1996: 164)

Given Iida's analysis, the referent of *zibun* is assumed to be the one who has perspective. *Zibun*-binding to *Hanako* in (44) thus signals that the speaker describes the situation from Hanako's perspective. The deictic expression *migi* in (44a), however, is interpreted from Taro's perspective. Iida assumes with

Fillmore (1975) that there can be only one perspective in a specified domain. She ascribes the awkwardness of (44a) to the fact that the sentence involves the two different perspectives. (44b), on the other hand, is grammatical because the sentence under this interpretation involves only one perspective (i.e. Hanako's perspective). She argues that data such as in (44) show that *zibun* is in nature similar to deictic expressions and that the referent of *zibun* must be the one who has perspective.

Recall here that Iida's syntactic condition makes no reference to the syntactic notion of subjecthood, and her syntactic condition alone cannot explain a contrast such as that in (45).

- (45) Taro_i-ga Hanako_j-ni zibun_{i/s_j}-no ayamati-o hanasita.
 Taro-Nom Hanako-Dat self-Gen mistake-Acc told
 "Taro_i told Hanako_j self's_{i/s_j} mistake."

In (45), both the subject NP *Taro* and the dative NP *Hanako* are less oblique than *zibun*. Thus, Iida's syntactic condition is met in both cases of *zibun*-binding. However, her discourse condition correctly rules out *zibun*-binding to *Hanako*, while rendering *zibun*-binding to *Taro* grammatical. According to Iida, a subject NP is one of the default possibilities that can have perspective, and the subject's perspective is, in principle, always available. Thus, the subject *Taro* in (45) can be understood as having perspective, but the dative object *Hanako* cannot. Hence, only *zibun*-binding to *Taro* is licensed. In Iida's system, *zibun*'s alleged property of subject orientation is explained in terms of the discourse function of a subject NP, not in terms of subjecthood.

One advantage of Iida's conjunctive approach over a disjunctive approach is that it can explain a contrast such as that in (46). Sample (ia) in n. 28 is repeated here as (46a).

- (46) a. Zibun_i-no zitu-no musuko-ga Taro_i-o kurusimete-iru.
 self-Gen real-Gen son-Nom Taro-Acc annoys
 "His_i own son annoys Taro_i."
 b. *Zibun_i-ga Taro_i-o kurusimete-iru.
 self-Nom Taro-Acc annoys
 (lit.) "Self_i annoys Taro_i." (Iida 1996: 98)

As mentioned briefly above, analyses proposed under a disjunctive approach apply the subjecthood condition and a discourse condition independently wherever they are applicable. For instance, recall Kameyama's analysis of *zibun*-binding discussed in section 3.1. Under her analysis, subject *zibun*-binding is explained on the basis of the feature of [+sub] (i.e. a grammatical subject), and nonsubject *zibun*-binding on that of the feature of [+log] (i.e. a logophoric individual). Given her analysis, then, (46a) is grammatical because it reports Taro's internal feeling. Taro is considered to be a logophoric individual and hence *zibun*-binding to *Taro* is allowed. But this line of analysis fails to

explain the ungrammaticality of (46b), which also reports Taro's feeling. If the notion of logophoricity is all that matters for nonsubject *zibun*-binding, *zibun*-binding to Taro in (46b) should be grammatical, contrary to the fact. The disjunctive approach thus cannot provide a satisfactory explanation of the contrast in (46).

Iida's conjunctive approach, on the other hand, explains the contrast in (46) as follows: her discourse condition is met in (46), because the speaker takes Taro's perspective in both cases. Her syntactic condition, however, rules out *zibun*-binding in (46b) while rendering *zibun*-binding in (46a) grammatical. In (46b), *zibun* is bound to the more oblique argument Taro. *Zibun*-binding in (46b) violates her syntactic condition, resulting in ungrammaticality. *Zibun* and Taro in (46a), by contrast, do not hold a coargument relation, and *zibun*-binding here is not subject to Iida's condition, resulting in grammaticality.

Another advantage of Iida's conjunctive approach over the disjunctive approach can be seen in data involving multiple *zibun*. Consider (47).

- (47) Taroo-wa [Hanako-ga zibun-no heya-de zibun-no sigoto-o
Taro-Top Hanako-Nom self-Gen room-in self-Gen job-Acc
site-ita to] itta.
was-doing Comp said
- a. Taro said that Hanako was doing his work in his room.
 - b. Taro said that Hanako was doing her work in her room.
 - c. *Taro said that Hanako was doing his work in her room.
 - d. *Taro said that Hanako was doing her work in his room. (Iida 1996: 80; originally from Howard and Niyekawa-Howard 1976)

As observed in Howard and Niyekawa-Howard (1976), when a sentence contains two instances of *zibun* as in (47), the two *zibun* in question must share the same referent. Thus, sentence (47) can induce the interpretations of (47a–b), but it cannot induce the interpretations of (47c–d). As Iida argues, if a syntactic mechanism and a pragmatic one were to apply disjunctively to *zibun*, the two occurrences of *zibun* in (47) should be able to take two different antecedents and therefore the interpretations in (47c–d) should be available.

Iida's conjunctive approach explains the contrast between (47a–b) and (47c–d) as follows. Her syntactic condition applies to (47) but it has nothing to say about the contrast between (47a–b) and (47c–d): Taro and *zibun* are not subcategorized by the same verb. So, *zibun*-binding to Taro is not subject to Iida's condition. As for *zibun*-binding to Hanako, since Hanako is the least oblique argument in the embedded clause, *zibun*-binding to Hanako satisfies Iida's condition.²⁹

Iida's discourse condition, however, makes the interpretations in (47a–b) available while rendering those in (47c–d) unavailable. As mentioned in (44), the speaker can take only one perspective in describing a given situation. The interpretations in (47a–b) require the speaker to take just one person's perspective to describe the situation, whereas those in (47c–d) require the speaker

to take both Taro's perspective and Hanako's. Accordingly, the interpretations in (47a–b) are available but those in (47c–d) are not. Iida argues that data with multiple *zibun* such as those in (47) provide evidence that the conjunctive approach is the right one for *zibun*-binding.

4 Complex Reflexives in Japanese

So far, we have concentrated on *zibun*-binding. In this section, we examine the nature of the complex reflexives, *zibun-zisin* and *kare-zisin*. I first present their basic properties and then examine two analyses of these reflexives, Katada (1988, 1991) and Aikawa (1993).³⁰

4.1 Basic properties of *zibun-zisin* and *kare-zisin*

The two complex reflexives, like *zibun*, are subject to the c-command requirement. For instance, *Taro* in (48) is embedded in the larger NP and cannot c-command *zibun-zisin/kare-zisin*, but the whole subject NP, *Taroo-no sensee*, "Taro's teacher," can, resulting in the contrast.

- (48) a. [_{NP} Taroo_i-no sensee]_j-ga zibun-zisin_{s_i/j}-o hihansita.
 Taro-Gen teacher-Nom self-self-Acc criticized
 "[Taro_i's teacher]_j criticized self-self_{s_i/j}."
 b. [_{NP} Taroo_i-no sensee]_j-ga kare-zisin_{s_i/j}-o hihansita.
 Taro-Gen teacher-Nom he-self-Acc criticized
 "[Taro_i's teacher]_j criticized he-self_{s_i/j}."

However, unlike *zibun*, the two complex reflexives cannot participate in LD-binding (Nakamura 1987, Katada 1988, 1991).³¹ For instance, consider (49).

- (49) Taroo_i-ga [Zi-roo_j-ga zibun-zisin_{s_i/j}/kare-zisin_{s_i/j}-o semeta
 Taro-Nom Ziro-Nom self-self /he-self -Acc blamed
 to] itta.
 Comp said
 "Taroo_i said that Ziro_j blamed self-self_{s_i/j}/he-self_{s_i/j}."

In (49), only the embedded subject *Ziro*, not the matrix subject *Taro*, can antecede *zibun-zisin/kare-zisin*.

Although the two complex reflexives are the same with respect to the c-command requirement and their locality, they exhibit different properties in other respects. First, *zibun-zisin* requires no agreement in phi-features with its antecedent, whereas *kare-zisin* does, as exemplified in (50).

- (50) a. Taroo_i/Hanako_j/[_{NP}Taroo-to Hanako]_k-ga zibun-zisin_{i/j/k}-o
 Taro /Hanako Taro-and Hanako-Nom self-self -Acc
 semeta.
 blamed
 "Taro_i/Hanako_j/[Taroo and Hanako]_k blamed self-self_{i/j/k}."
- b. Taroo_i/Hanako_j/[_{NP}Taroo-to Hanako]_k-ga kare-zisin_{i/*j/*k}-o
 Taro /Hanako Taro-and Hanako-Nom he-self -Acc
 semeta.
 blamed
 "Taro_i/Hanako_j/[Taroo and Hanako]_k blamed he-self_{i/*j/*k}."

The difference above can be ascribed to the difference in phi-feature specification between the *zibun* part of *zibun-zisin* and the *kare* part of *kare-zisin*: *zibun* lacks its phi-feature specification, whereas *kare* "he" bears the phi-features of [+3rd person, +singular, +male]. From this, the contrast in (50) naturally follows.

Second, the two complex reflexives are different with respect to their subject orientation: *zibun-zisin* is subject-oriented but *kare-zisin* is not, as shown in (51).

- (51) a. Taroo_i-ga Ziroo_j-ni zibun-zisin_{i/*j}-nituite hanasita.
 Taro-Nom Ziro-Dat self-self -about told
 "Taro_i told Ziro_j about self-self_{i/*j}."
- b. Taroo_i-ga Ziroo_j-ni kare-zisin_{i/j}-nituite hanasita.
 Taro-Nom Ziro-Dat he-self -about told
 "Taro_i told Ziro_j about he-self_{i/j}."

Again, we can ascribe this contrast to the difference between *zibun* and *kare*: *zibun* is subject-oriented while *kare* is not. Hence, there is a contrast in subject orientation between *zibun-zisin* and *kare-zisin*.

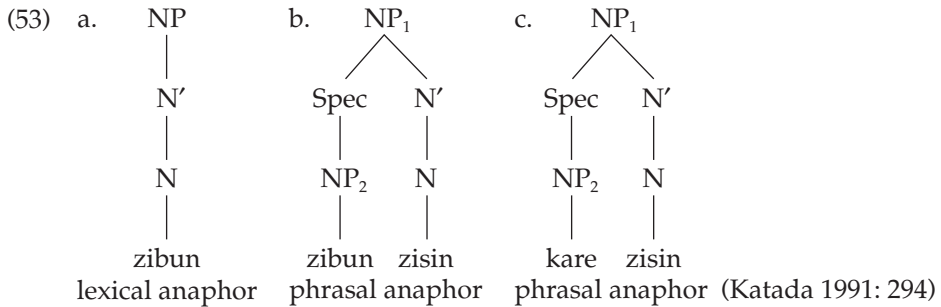
Third, the two reflexives under consideration are different with respect to the type of NP that they can take as their antecedent.

- (52) a. Daremo_i-ga zibun-zisin_i-o hihansita.
 everyone-Nom self-self-Acc criticized
 "Everyone_i criticized self-self_i."
- b. *Daremo_i-ga kare-zisin_i-o hihansita.
 everyone-Nom he-self-Acc criticized
 "Everyone_i criticized he-self_i."

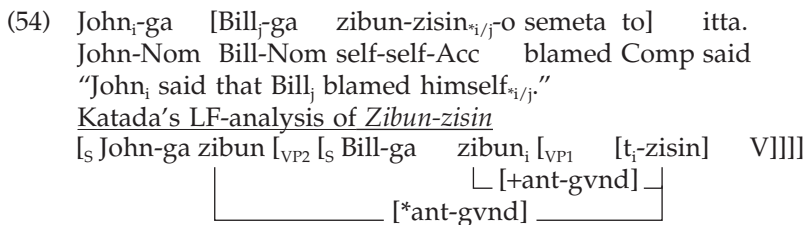
In (52), the QP, *daremo* "everyone," occurs as the antecedent of *zibun-zisin*/*kare-zisin*. As shown, *zibun-zisin* can take a QP antecedent but *kare-zisin* cannot. This is predicted, given the fact that *zibun* can be a bound variable but *kare* cannot (see section 2.1).³² As shown, differences in binding behavior between *zibun-zisin* and *kare-zisin* can be ascribed to the differences in lexical properties between *zibun* and *kare* (cf. Nakamura 1987).³³

4.2 Katada's (1988, 1991) unified analysis of the three reflexives

Katada (1988, 1991) explores a unified analysis of the three reflexives in Japanese by extending her LF-analysis of *zibun* to *zibun-zisin* and *kare-zisin*. In so doing, she first distinguishes the complex reflexives from *zibun* on the basis of a difference in their internal structures. Examine (53), which presents Katada's analysis of the internal structures of the three reflexives.



Katada characterizes *zibun* as a lexical anaphor and the two complex reflexives as phrasal anaphors. Recall that under Katada's analysis, *zibun* raises to a higher position(s) in LF through VP-adjunction and this LF-raising of *zibun* is unlimited, so that *zibun* can participate in LD-binding (see section 2.2). LF-raising of *zibun* out of *zibun-zisin*, however, is limited. Katada argues that in the case of *zibun-zisin*, what raises is only the *zibun* part, not the entire *zibun-zisin* as schematized in (54).



According to Katada, the trace of *zibun* extracted from *zibun-zisin* in the embedded clause of (54) cannot be lexically governed because there is no genitive case marker here.³⁴ Then, this trace must be antecedent-governed by *zibun* in order to satisfy the Empty Category Principle (N. Chomsky 1981a).³⁵ LF-raising of *zibun* to the embedded VP allows the trace in question to be antecedent-governed, but LF-raising of *zibun* to the matrix VP does not, as shown above. Accordingly, LD-binding of *zibun-zisin* is not possible.

Zibun-zisin's subject orientation, just like the case in *zibun-binding*, is explained on the basis of the asymmetric c-command relation displayed between a subject NP and a nonsubject NP with respect to the landing site of the *zibun* part of *zibun-zisin*.

As for the binding behavior of *kare-zisin*, Katada argues that *kare-zisin* does not undergo any LF-movement because it possesses the specified phi-features of [+3rd, +singular, +male]. *Kare-zisin* must be interpreted in situ and from this, the unavailability of LD-binding for *kare-zisin* naturally follows. The hypothesis that *kare-zisin* does not undergo LF-movement also explains the absence of the property of subject orientation in *kare-zisin*: *kare-zisin*, being interpreted in situ, can be c-commanded either by a dative NP, if any, or by a subject NP as schematized in (55). Hence, *kare-zisin* exhibits no property of subject orientation.

- (55) ... NP_i-ga [_{VP} ... NP_j-ni ... [*kare-zisin*]_{i/j} ...] ... (Katada 1991: 299 with modification)

As shown, Katada ascribes the differences in binding behavior among the three reflexives to the differences in their LF-movements: LF-raising of (bare) *zibun* is unlimited and so *zibun* can participate in LD-binding. By contrast, LF-raising of *zibun* out of *zibun-zisin* is limited only to the local VP and hence *zibun-zisin* is a local anaphor. The property of subject orientation that these two reflexives exhibit is explained on the basis of the asymmetric c-command relation displayed by subject NPs and nonsubject NPs with respect to the landing site(s) of *zibun*. *Kare-zisin*, on the other hand, does not undergo LF-raising. Hence, neither LD-binding nor subject orientation is available for it.

4.3 *Zibun-zisin as a reflexivizer: Aikawa (1993)*

Aikawa (1993) explores yet another type of approach to the distinction between *zibun* and *zibun-zisin*. Following Reinhart and Reuland (1993) (R&R), she characterizes *zibun-zisin* as a reflexivizer and *zibun* as a non-reflexivizer. Since her analysis is largely dependent on R&R's analysis of reflexivity, we will first look at their analysis.

R&R distinguish morphologically complex anaphors (SELF anaphors) from morphologically simplex ones (SE anaphors) on the basis of their functions. They argue that SELF anaphors can function as reflexivizers but SE anaphors cannot. Informally, the function of a reflexivizer is to impose identity between coarguments of a predicate, and the occurrence of a reflexivizer in the reflexivity domain of a predicate (i.e. Theta-grid positions of a predicate) is expected to license the reflexivity of the predicate in question. Thus, in R&R's analysis, only SELF anaphors, not SE anaphors, can license the reflexivity of predicates. Consider, for instance, (56), which involves the two types of Dutch anaphors, *zichzelf* "self-self" and *zich* "self."

- (56) a. Max_i haat zichzelf_i.
 “Max hates SELF.” (Reinhart and Reuland 1993: 661)
 b. *Max_i haat zich_i.
 “Max hates SE.” (Reinhart and Reuland 1993: 665)

As shown, the occurrence of *zichzelf* can induce the reflexive interpretation of a predicate but the occurrence of *zich* cannot.

It is important to note that under R&R’s analysis, the reflexivity of a predicate can also be licensed by the intrinsic (lexical) reflexivity of a predicate. For instance, consider (57), taken from R&R.

- (57) Max schaamt_[+reflexive] zich.
 shames SE
 “Max is ashamed.” (Reinhart and Reuland 1993: 666)

According to R&R, the predicate in (57) is intrinsically reflexive and this lexical reflexivity of the predicate can license its reflexivity. This is why (57) is grammatical without the occurrence of SELF. In R&R’s system, not only the type of anaphor (i.e. SELF or SE) but also the type of predicate (i.e. intrinsically reflexive or not) plays an important role for licensing the reflexivity of predicates.

Returning to Aikawa (1993), she presents data such as (58) to support the hypothesis that *zibun-zisin*, but not *zibun*, can function as a reflexivizer. Examine (58), which involves the interaction between a QP antecedent and the two reflexives under consideration.

- (58) a. Dareka_i-ga zibun-zisin_i/?*zibun_i-o tunetta.
 someone-Nom self-self /self-Acc pinched
 “Someone_i pinched zibun-zisin_i/?*zibun_i.”
 b. Daremo_i-ga zibun-zisin_i/?*zibun_i-o hagemasita.
 everyone-Nom self-self /self-Acc encouraged
 “Everyone_i encouraged zibun-zisin_i/?*zibun_i.” (Aikawa 1993: 42 with modification)

Aikawa assumes with R&R that the reflexivity of a predicate can be licensed only through the relationship of variable binding between two arguments of a predicate. Thus, in her analysis, if an expression *x* is a reflexivizer and if it occurs in the reflexivity domain of a predicate, *x* is expected to be construed as a bound variable. Aikawa argues that the ungrammaticality of *zibun*-binding in (58) shows that *zibun* cannot be construed as a bound variable in the reflexivity domain of a predicate, and as such, it cannot be a reflexivizer. By contrast, the grammaticality of *zibun-zisin*-binding in (58) shows that *zibun-zisin* in the reflexivity domain of a predicate can be construed as a bound variable and hence can be a reflexivizer. She argues that data such as those in (58) support the hypothesis that Japanese has only one reflexivizer, namely, *zibun-zisin*.

She continues to argue that the strict locality of *zibun-zisin* can be ascribed to the function of *zisin* as a reflexivizer: reflexivity is a matter of the relationship between coarguments of a predicate and it must be licensed locally. The function of *zisin* as a reflexivizer then imposes strict locality on *zibun-zisin*.

As for subject orientation, Aikawa explains it on the basis of the binding relation between the *zibun* part of *zibun-zisin* and Agr: *zibun* of *zibun-zisin*, just like (bare) *zibun*, is expected to be bound to the first accessible Agr in LF for interpretation.

Note that Katada's analysis fails to explain a contrast such as that in (58): her analysis predicts no difference in grammaticality between binding of *zibun-zisin* and local binding of *zibun*. For instance, given her analysis, the *zibun* part of *zibun-zisin* and the bare *zibun* in (58) are both expected to adjoin to the VP at LF. Thus, both binding of *zibun-zisin* and that of *zibun* in (58) are expected to be grammatical. By contrast, Aikawa's analysis, as just seen above, can provide an explanation of such a contrast by making reference to the difference in functions between *zibun-zisin* and *zibun*, and in this respect, Aikawa's analysis is more advantageous than Katada's.

Another advantage of Aikawa's analysis over Katada's can be seen in the contrast between (58) and (59) with respect to the grammaticality of *zibun*-binding. Consider (59).

- (59) a. Daremo_i-ga [zibun_i-no kodomo]-o tunetta.
 everyone-Nom self-Gen child-Acc pinched
 "Everyone_i pinched self_i's child."
 b. Daremo_i-ga [John-ga zibun_i-o tunetta to] itta.
 everyone-Nom John-Nom self-Acc pinched Comp said
 "Everyone_i said that John pinched self_i." (Aikawa 1993: 43 with modification)

Zibun in (59a) is embedded in the larger NP and *zibun* in (59b) is LD-bound. As shown, once *zibun* gets outside the reflexivity domain, *zibun*-binding to a QP becomes acceptable. Nothing in Katada's system can explain the contrast in grammaticality between *zibun*-binding in (58) and that in (59). Aikawa's analysis, by contrast, can provide an explanation of this contrast: *zibun*, by nature, is capable of being construed as a bound variable and hence *zibun*-binding to the QP in (59) is possible. But in (58), *zibun* occurs inside the reflexivity domain. Aikawa argues that once *zibun* occurs inside the reflexivity domain, because of its inability to function as a reflexivizer, *zibun* cannot be a bound variable. Accordingly, *zibun*-binding to the QP in (58) is ungrammatical.

At this point, one might wonder how her analysis of *zibun* explains the grammaticality of sentences like (60).

- (60) Daremo_i-ga zibun_i-o hihansita/semeta.
 everyone-Nom self-Acc criticized/blamed
 "Everyone_i criticized/blamed self_i."

In (60), *zibun* occurs with the QP antecedent, and unlike in (58), *zibun*-binding to the QP antecedent here is acceptable. Aikawa explains the grammaticality of (60), analogous to R&R's account of (57). She argues that the predicates in (60) are listed in the lexicon both as reflexive and as nonreflexive and that the intrinsic reflexivity of the reflexive entries can license their reflexivity. Accordingly, (60) is grammatical.

5 Remaining Problems

This section discusses some of the remaining problems concerning *zibun*-binding. One problem concerns the binding behavior of local *zibun* as in (61).

- (61) a. Taro_i-ga zibun_i-o hihansita/semeta.
 Taro-Nom self-Acc criticized/blamed
 ‘‘Taro_i criticized/blamed himself_i.’’
 b. ??/?*Taro_i-ga zibun_i-o nagutta/tataita/ketta.
 Taro-Nom self-Acc hit /hit /kicked
 ‘‘Taro_i hit/hit/kicked himself_i.’’

As was mentioned in section 2.1, the grammaticality of local binding of *zibun* varies, depending on the type of predicate that *zibun* occurs with. The standard BT has no way to explain such varied grammaticality of local *zibun*: if *zibun* is categorized as anaphor, the ungrammaticality of a sentence like (61b) would be problematic for Condition A. But if it is categorized as pronominal, the grammaticality of a sentence like (61a) would be problematic for Condition B. Although this phenomenon of *zibun*-binding has been noted in the literature for quite some time (cf. N. A. McCawley 1976, Oshima 1979, Takezawa 1989, Ueda 1986, Y. Kitagawa 1986, among others), the question of why such varied grammaticality arises for local binding of *zibun* has never been answered in a systematic way.³⁶

Note that the pragmatic approach to *zibun*-binding also cannot explain such phenomenon of local binding of *zibun*. For instance, recall Kuno's Awareness Condition that we saw in section 3.1. Taro in (61) must have been aware of his own action, regardless of the type of activity that the verb denotes here. Thus, Kuno's Awareness Condition does not provide a satisfactory account. Iida's conjunctive approach cannot explain the contrast in (61), either: *zibun* is bound to the less oblique argument *Taro*. Thus her syntactic condition is met in both (61a) and (61b). Her discourse condition is also met because Taro, serving as the subject, has perspective. In short, regardless of whether we take a syntactic approach or a pragmatic approach, we have no way to explain the varied grammaticality of local binding of *zibun* in (61).

Recall also Ueda's observation concerning the data in (28), which involve the same kind of contrast observed in (61). He suggests that predicates that

allow local binding of *zibun* involve abstract activities whereas those that preclude local binding of *zibun* involve physical activities. One way to capture Ueda's insight is to hypothesize that *zibun* cannot be associated with SELF in a concrete sense. For instance, the activities expressed by the predicates in (61b) affect some body part(s) of the referent of *zibun* in one way or another and in this respect, *zibun* involves SELF in a concrete sense. By contrast, the activities expressed by the predicates in (61a) concern Taro's personality, thought(s), deed(s), etc., rather than Taro's physical body part(s) and in this respect, *zibun* involves SELF in an abstract sense. Thus, it is plausible to assume that the semantic constraint on local *zibun* mentioned above is responsible for the varied grammaticality of local binding of *zibun*.

At this point, one might argue that the reason why (61b) resists local binding of *zibun* is that predicates of the type in (61b) select a body-part NP as their object. As evidence, once a body-part object is inserted, (61b) becomes grammatical as in (62).

- (62) Taroo-ga (zibun-no) migi asi-o nagutta/tataita/ketta.
 Taro-Nom self-Gen right leg-Acc hit /hit /kicked
 "Taro hit/hit/kicked (his) right leg."

The grammaticality of (63), however, indicates that these predicates do not have to take a body-part object.

- (63) a. Ziroo-wa sono tukue-o sotto tataita.
 Ziro-Top that desk-Acc softly hit
 "Ziro hit that desk softly."
 b. Hanako-ga sono booru-o ketta.
 Hanako-Nom that ball-Acc kicked
 "Hanako kicked that ball."

It is important to note that the varied grammaticality of the sort that we saw in (61) disappears if *zibun* occurs in the possessor position of an object NP or in an embedded clause, as shown in (64) and (65).

- (64) Taro_i-ga [_{NP} zibun_i-no kodomo]-o nagutta/tataita/ketta.
 Taro-Nom self-Gen child-Acc hit /hit /kicked
 "Taro_i hit/hit/kicked his_i child."
 (65) Taroo_i-ga [_S Hanako-ga zibun_i-o nagutta/tataita/ketta to] itta.
 Taro-Nom Hanako-Nom self-Acc hit /hit /kicked Comp said
 "Taro_i said that Hanako hit/hit/kicked him_i."

In (64), *zibun* occurs in the possessor position of the object NP, and in (65), it occurs in the embedded clause. In both cases, unlike in (61b), *zibun*-binding is acceptable. A similar pattern can be observed regarding *zibun*-binding to a QP antecedent. (66) illustrates this point.

- (66) a. ??/?*Daremo_i-ga zibun_i-o nagutta.
 everyone-Nom self-Acc hit
 "Everyone_i hit himself_i."
- b. Daremo_i-ga [_{NP} zibun_i-no kodomo]-o nagutta.
 everyone-Nom self-Gen child-Acc hit
 "Everyone_i hit his_i child."
- c. Daremo_i-ga [_S Hanako-ga zibun_i-o nagutta to] itta.
 everyone-Nom Hanako-Nom self-Acc hit Comp said
 "Everyone_i said that Hanako hit him_i."

The data above then show that an important distinction to be made for *zibun*-binding is whether *zibun* occurs as an argument of a predicate or not. As just seen above, binding of argument *zibun* is affected by types of activities expressed by verbs but binding of nonargument *zibun* is consistently grammatical. Further, argument *zibun* is unstable with respect to variable binding but nonargument *zibun* is not.

The importance of the distinction of argument vs. nonargument for reflexive binding, in fact, is recognized in the traditional view on reflexivization. In traditional linguistics, reflexivization is understood as a property of predicates: that is, use a reflexive if the verb in question expresses a reflexive interpretation (cf. Jespersen 1933, Partee and Bach 1981). Put slightly differently, reflexivization is considered to be about the relationship between coarguments of a predicate.³⁷ Under the standard BT, however, the phenomenon of reflexivization is subsumed under Conditions A and B and we seem to have "an illusion" that elements called reflexives all concern this phenomenon. But this is clearly not true. To see this more concretely, take *zibun*-binding in (64) and (65). *Zibun* in these examples does not occur as an argument of the predicates, and *zibun*-binding here has nothing to do with reflexivization of the predicates. If we take reflexives literally as elements that concern reflexivization, nonargument *zibun* as in (64) and (65) cannot be a reflexive. The literature has been focusing on the issue of how LD-binding of *zibun* can be accommodated by conforming to the standard BT. But the data above rather point toward the hypothesis that what is crucial is the distinction of argument *zibun* vs. nonargument *zibun* and the theory of *zibun*-binding must make reference to this distinction, which is similar to the position that Iida (1996) takes.

Another problem concerns subject orientation of *zibun*. As seen in section 3, the subject antecedent condition on *zibun*-binding faces counterexamples, and subject orientation is highly controversial. But suppose that subject orientation is not valid as argued by Iida (1996). This hypothesis then may have a significant impact on other phenomena in Japanese. As mentioned at the outset of this chapter, *zibun*-binding has been used as a diagnostic test of subjecthood in Japanese and we saw that researchers have explored analyses of constructions such as causatives or indirect passives on the basis of this diagnosis. But if *zibun*-binding has nothing to do with subjecthood but rather something to do with pragmatic factor(s), as some scholars argue, re-examination of previous

analyses of such constructions might be required. In order to shed more light on the grammar of Japanese, the validity of subject orientation should be further investigated.

NOTES

- 1 Reflexive binding seems to involve pragmatic condition(s) cross-linguistically. See, for instance, Clements (1975), Hyman and Comrie (1981), Kuno (1987), Sells (1987), and Zribi-Hertz (1989), among others.
 - a. on the distributive reading:
Taro blamed himself and Hanako blamed herself.
 - b. *on the collective reading:
Taro and Hanako (collectively) blamed themselves.
- 2 For the syntactic approach to *zibun*-binding, see Kuroda (1965a), Oyakawa (1973, 1974), K. Inoue (1976b), N. A. McCawley (1976), Howard and Niyekawa-Howard (1976), Akmajian and Kitagawa (1976), C. Kitagawa (1981), N. Hasegawa (1981), Oshima (1979), Saito and Hoji (1983), Fukui (1984), Y. Kitagawa (1986), Ueda (1988), M. Nakamura (1987), Katada (1988, 1991), J. Abe (1991), and Aikawa (1993), among others. For the pragmatic approach, see Kuroda (1973), Kuno (1972b, 1973, 1976a, 1976c, 1978a, 1978b, 1986a, 1987), Kuno and Kaburaki (1977), Kameyama (1984, 1985), Iida and Sells (1986), Gunji (1987), Sells (1987), and Iida (1996), among others.
- 3 It should be noted that when *zibun* takes a plural NP as its antecedent, the sentence induces only a distributive reading, not a collective reading, as shown in (i) (cf. Ishii 1989, J. Abe 1991).
 - (i) [_{NP}Taro-to Hanako]_i-ga
Taro and Hanako-Nom
zibun_i-o semeta.
self-Acc blamed
“[_{NP}Taro and Hanako]_i blamed self_i.”
- 4 Such usage of *zibun* is common in the dialects of the western part of Japan (e.g. Kansai dialect).
- 5 One might argue that the ungrammaticality of (17) is due to *zibun*'s property of subject orientation: one of the referents of the split antecedent in (17) is the nonsubject *Taro*. However, the following example, which is drawn from J. Abe (1991: 61), shows that this is not the case.
 - (i) *Masao_i-ga [Yoichi_j-ga
Masao-Nom Yoichi-Nom
[zibun_{i+j}-no syasin-ga
self-Gen picture-Nom
uri-ni deteiru to] omotte-iru
be on sale Comp think
to] itta.
Comp said
“Masao_i said that Yoichi_j
thought that a picture of
themselves_{i+j} would be on
sale.”

The split antecedent in (i) consists of the two subject NPs (i.e. *Masao* and *Yoichi*). Yet *zibun*-binding here is impossible. Data such as (i) show that the ungrammaticality of (17) has nothing to do with the subject orientation of *zibun*.

- 6 Lasnik (1989) provides a helpful summary of the historical development of the standard BT. We refer to his work for more details on this topic.
- 7 The definition of governing category (GC) is stated as follows:
- α is the GC for β if and only if α is the minimal category containing β and a governor of β , where $\alpha = \text{NP}$ or S . (N. Chomsky 1981a: 188)
- 8 *Zibun* in (21b) is, in fact, bound to the topic NP *Taro* but this is not problematic if we assume that a topic NP is base-generated in the subject position, and then is topicalized as in (i):
- (i) [Taro_i [s $t_i \dots$]]
↑ (Topicalization)
- 9 See also Akmajian and Kitagawa (1976), Saito and Hoji (1983), Y. Kitagawa (1986), Farmer et al. (1986), M. Nakamura (1987), and J. Abe (1991), among others.
- 10 More precisely, Fukui claims that *zibun* is a resumptive pronoun in Japanese.
- 11 Fukui proposes the following for the distinction of A-subject vs. A'-subject in Japanese:
- (i) A-subject: subject of a complement clause
(ii) A'-subject: matrix subject/subject of an adjunct clause (Fukui 1984: 28)
- 12 Given Fukui's analysis, the embedded subject *Hanako* is in an A-position (see n. 11). Thus, *zibun*-binding to *Hanako* in (24b) is expected to be ruled out by Condition B. In fact, Fukui notes that this *zibun*-binding is hardly possible. However, many speakers consider such *zibun*-binding acceptable, and this might be a potential problem for his analysis.
- 13 N. Chomsky (1982) introduces the features of [\pm anaphor] and [\pm pronominal] to categorize different types of NPs, including empty categories, as in (i):
- (i)
a. Lexical anaphors, NP-trace \rightarrow [$+$ anaphoric, $-$ pronominal]
b. Lexical pronominals, *pro* \rightarrow [$-$ anaphoric, $+$ pronominal]
c. R-expressions, *wh*-trace \rightarrow [$-$ anaphoric, $-$ pronominal]
d. PRO \rightarrow [$+$ anaphoric, $+$ pronominal]
- 14 The semantic representations of the two types of readings for the VP in (26) are provided in (i) below:
- (i) John_i called his_i mother. (= (26))
a. John (λx (x called x 's mother)) (on the bound variable reading of *his*)
b. John (λx (x called John's mother)) (on the coreference reading of *his*)
- Informally, (ia) says that whoever is assigned to x , that person x called his (= x 's) mother. On the other hand, (ib) says that whoever is assigned to x , that person x called John's mother, not x 's mother. The indexing system in syntax cannot encode this distinction between the two types of readings, and therefore it is hard to see the distinction under normal circumstances.
- 15 Ueda notes that *zibun* in (27a) can induce not only the sloppy reading but also the strict reading, which is contradictory to his analysis. He leaves this problem open.
- 16 In Williams (1980), the rule of predication is defined as: "coindex NP and X" (Williams 1980: 206), where "X" is the maximal projection of some head. For instance, the

- subject predicate relation of the sentence, *John left*, can be indicated as follows: [John]_{NP_i} [left]_{VP_i}.
- 17 Ueda (1986) stipulates this as a principle specific to Japanese.
- 18 Since Lebeaux (1983), a series of works has been done to argue for the LF-raising of so-called LD-anaphors. Different types of LF-movement have been proposed for LD-anaphors. See, for instance, Pica (1984, 1987), Battistella (1989), Cole et al. (1990), Huang and Tang (1989), and Koster and Reuland (1991), among others.
- 19 Katada assumes the following to explain the free extraction of *zibun*:
- (i) The trace of *zibun* can be lexically governed by Case hence the Empty Category Principle (N. Chomsky 1981a) [see n. 35] can always be satisfied;
 - (ii) Case marker stranding is allowed at LF in Japanese; and
 - (iii) Subjacency can be violated at LF (Huang 1982). (Katada 1991: 294–5)
- 20 Reinhart and Reuland (1991, 1992) argue that simplex anaphors (SE anaphors in their terminology) lack phi-features and the acquisition requirement of phi-features forces them to be associated with Agr^o. Aikawa, however, argues that adopting their LF-movement analysis for *zibun*-binding is problematic. See Aikawa (1993) for more details.
- 21 Aikawa assumes with N. Chomsky (1992) that morphological features must be checked off by the head of a functional category (e.g. Agr, Tense, etc.) through spec-head agreement at LF and, in the case of the subject, its features must be checked in spec of Agr (Aikawa 1993: 165).
- 22 Hoji (1990) points out that the ungrammaticality of (35a) can be explained on the basis of Lasnik's (1986) generalization of referentiality hierarchy, which states that a less referential expression cannot bind a more referential one. *Zibun*, which lacks phi-feature specification, is assumed to be less referential than *kare*, which has the specified phi-features. As such, the ungrammaticality of (35a), in which the less referential *zibun* binds the more referential *kare*, is predicted.
- 23 It is assumed that a complement clause headed by *to* "that" can be used to represent one's direct speech, thoughts, and feelings (Kuno 1973).
- 24 Belletti and Rizzi (1988) argue that the surface subject of a psych-verb is the theme of the verb and it originates in the VP. Given this, then, the surface object *Hiroshi* in (39) can c-command the subject NP in the d-structure.
- 25 Kuno's Awareness Condition on *zibun*-binding is stated as follows:
- Zibun* in a constituent clause (A) is coreferential with a noun phrase (B) of the matrix sentence only if A represents an action or state that the referent of B is aware of at the time it takes place or has come to be aware of at some later time. (Kuno 1973: 322)
- 26 The notion of empathy differs from that of logophoricity in the following sense. Empathy encodes whose point of view the speaker is taking in describing a particular event or state, and this notion comes into play in explaining cases where subject *zibun*-binding is ruled out. Logophoricity, on the other hand, concerns whose feeling or thought is reported in the domain that contains

a logophoric expression, and it is used to explain cases of nonsubject *zibun*-binding.

- 27 Iida proposes the following as a minimal syntactic condition on *zibun*-binding:
- (i) *Zibun* may not “o-command” its antecedent. (Iida 1996: 117)
 - (ii) Definition of O-command: Let Y and Z be synsem objects with Y referential, Y “o-commands” Z just in case Y is less oblique than some X that dominates Z. In case X = Z, Y is said to locally o-command Z. (Iida 1996: 115)

Her condition is based on the binding theory of Head-Driven Phrase Structure Grammar (HPSG). See Pollard and Sag (1994) or Iida (1996).

- 28 According to Iida, *zibun*-binding such as that in (i) below is not subject to her condition.
- (i) a. *Zibun_i-no zitu-no self-Gen real-Gen musuko-ga Taroo_i-o son-Nom Taro-Acc kurusimeteiru.*
annoy
“His_i own son annoys Taro_i.”
 - b. *Zibun_i-ga Taroo_i-nitotte self-Nom Taro-for yuiitu-no tayori da.*
only-Gen reliance is
(lit.) “Self_i is only reliable to Taro_i.” (Iida 1996: 98)

In (ia), *zibun* occurs in the possessive position of the subject. Iida notes that such *zibun* does not enter into an obliqueness relation with the object NP. Thus, her syntactic condition does not rule out *zibun*-binding to the more oblique object NP in (ia). Her condition does not say anything about *zibun*-binding in

(ib), either, because the NP, *Taro-ni totte* “to Taro,” is not subcategorized by the verb, and hence no obliqueness relation is held between *zibun* and *Taro*.

- 29 Note that the first occurrence of *zibun* in (47) (i.e. *zibun* that occurs in the PP, *zibun-no heya-de* “in self’s room”) does not enter into an obliqueness relation with *Hanako*, because the PP in question is not subcategorized by the embedded verb. Accordingly, the binding of this *zibun* by *Hanako* is not subject to Iida’s syntactic condition.
- 30 Nakamura (1987) also explores an analysis of the two complex reflexives. He takes a parametric approach (cf. Yang 1983, Huang 1983, Manzini and Wexler 1987) to explain their binding behavior.
- 31 Aikawa (1994) observes that LD-binding of *zibun-zisin/kare-zisin* becomes possible when they occur in the embedded subject position. She analyzes such *zibun-zisin/kare-zisin* as a focus logophor in the sense of Reinhart and Reuland (1993).
- 32 Note that both *zibun-zisin* and *kare-zisin* can take a referential NP as their antecedent as in (i).
- (i) a. *Taroo_i-ga zibun-zisin_i-o Taro-Nom self-self-Acc hihansita.*
criticized.
 - b. *Taroo_i-ga kare-zisin_i-o Taro-Nom he-self-Acc hihansita.*
criticized
“Taro_i criticized himself.”

Given the assumption that *zibun-zisin* can be a bound variable whereas *kare-zisin* cannot, we should predict that (ia) yields only sloppy reading whereas (ib) yields only strict reading. This prediction, however, is not borne out. Examine

(ii) below, which involves the sloppy identity test of *zibun-zisin/kare-zisin*.

- (ii) a. Taro-ga zibun-zisin-o
Taro-Nom self-self-Acc
hihansita. Kazuo-mo da.
criticized Kazuo also be
(sloppy reading) Taro
criticized himself. Kazuo
criticized himself, too.
(strict reading)*Taro
criticized himself. Kazuo
criticized him (= Taro),
too.
- b. Taro-ga kare-zisin-o
Taro-Nom he-self-Acc
hihansita. Kazuo-mo da.
criticized Kazuo also be
(sloppy reading)(?)Taro
criticized himself. Kazuo
criticized himself, too.
(strict reading) Taro
criticized himself. Kazuo
criticized him (= Taro),
too.

The results in (iia) are consistent with the prediction above, but the availability of the sloppy reading for *kare-zisin* in (iib) is contradictory to it. We leave this problem open here.

- 33 However, as pointed out by Aikawa (1993), *zibun's* properties of

modification, pronominal usage, and discourse-binding are not carried over to *zibun-zisin*.

- 34 Recall that Katada (1991) assumes that the trace of *zibun* can be lexically governed by Case including the genitive case *-no*. See n. 19.
- 35 The Empty Category Principle (ECP) (N. Chomsky 1981a) states that an empty category must be either lexically governed by a lexical X^0 or antecedent-governed by (i.e. coindexed with and c-commanded by) a category that governs it.
- 36 N. A. McCawley (1976) proposes that verbs such as *arau* "to wash" obey an Unlike-NP Constraint and that *zibun* cannot occur as an object of such verbs.
- 37 As we saw briefly in section 4.3, Reinhart and Reuland's (1993) analysis of reflexivity is, in spirit, the same as this traditional view on reflexivization. They argue, among other things, that what Conditions A and B are about can be subsumed under conditions on the wellformedness and the interpretation of reflexive predicates. They propose a revision of BT. Interested readers should refer to them for more details.