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Summary

This paper discusses the reconstruction effects and binding of *zibun* in relative clause head positions. We propose two different structures for "*zibun no X*": AGENT *zibun* is in Spec of DP; non-AGENT *zibun* (e.g. THEME *zibun*) is a sister position of the relative clause. We claim that the relative clauses with AGENT *zibun* are derived by IP scrambling at S-Structure. This structural relation between the scrambled relative clause and its head is very similar to non-restrictive relatives. Thus, we will conclude, at least, that a relative clause with AGENT *zibun* is non-restrictive one. By assuming our proposed structure of relative clauses and the obligatory undoing of the scrambled IP in the sense of Saito (1992), the disjoint interpretation between *zibun* and the subject in the relative clause results from the condition (C) type of reconstruction effects.

*reconstruction effects *scrambling *AGENT

0. Introduction

In (1)–(2), an NP in a relative clause cannot bind an anaphoric expression in the head of the relative clause.

- (1) a. Taroo $_i$ -ga Ziroo $_j$ -no-tokoro-ni [John $_k$ -ga e taipu-sita] $zibun_{i/^*j/^*k}$ -NOM -GEN -place -DAT -NOM typed SELF
 - -no ronbun-o mottekita
 - -GEN paper -ACC brought
 - 'Taroo brought SELF's paper which John typed to Ziroo.'
 - - -no ronbun-o mottekita
 - -GEN paper -ACC brought

- c. Taroo $_i$ -ga Ziroo $_j$ -no-tokoro-ni [John $_k$ -ga e taipu-sita] $kare-zisin_{i/j/k}$
 - -no ronbun-o mottekita
 - -GEN paper -ACC brought
- (2) a. [John; -ga kesa e mituketa] zibun; ni tuite-no sinbunkizi
 -NOM this morning found SELF about newspaper article

 'the newspaper article about SELF which John found this morning.'
 b.??[John; -ga kinoo e taipu-sita] zibun; -no kizi

-NOM yesterday typed SELF -GEN article 'SELF's paper which John typed yesterday.'

We claim that a kind of AGENT *zibun* is base-generated in Spec of DP such as WH-phrases, whose and which (Fiengo (1988)), not under an NP. On the other hand, non-AGENT *zibun*, *zibun-zisin*, and *kare-zisin* are base-generated under an NP like *himself* in English. Furthermore, sentences such as (1a) are derived by IP scrambling. We will attempt to explain the contrast between (1a)–(1c) and between (2a)–(2b) by the condition (C) type reconstruction effects only for AGENT *zibun*.

Section 1 will point out problems in previous analyses of relative clauses with a head containing an anaphor (Ishii (1991) among others), which are based on LF anaphor raising (Katada (1991)) and Chain Binding (Barss (1986)) and reconstruction effects through Williams' predication. Section 2 will justify two distinct positions for *zibun* of 'zibun no X.' The proposed structure for AGENT zibun appropriately predicts the disjoint reading between the anaphor in the relative head position and the subject NP of the relative clause in terms of condition (c) type of reconstruction effects. In section 3, we will observe that relative clauses with Agent zibun behave structurally like non-restrictive relatives in terms of reconstruction effects and parasitic gap licensing. The final section will give the conclusion.

1.0. A Problem of Anaphor Binding in Relative Clause

1.1. Basics of Anaphor Binding in Japanese

Japanese has three types of anaphors, zibun, zibun-zisin, kare-zisin. Zibun is a long-distance anaphor, whose antecedent can be outside its Governing Category,

and is subject oriented as illustrated in (3a). (3b-c), on the other hand, show that *zibun-zisin* and *kare-zisin* must be locally bound.

- (3) a. Taroo_i -ga Ziroo_j -ni [John_k -ga $\operatorname{zibun}_{i/*j/k}$ -o semeteiru] to itta -NOM -DAT -NOM SELF -ACC blame COMP said 'Taroo said to Ziroo that John blamed SELF.'
 - b. Taroo _i -ga Ziroo _-ni [John _k-ga zibun-zisin _*_i/*_j/_k-o semeteiru] to itta _-NOM _-DAT _-NOM SELF-SELF _-ACC blame COMP said
 - c. Taroo $_i$ -ga Ziroo $_j$ -ni [John $_k$ -ga kare-zisin $_{*i/*j/k}$ -o semeteiru] to itta -NOM -DAT -NOM HE-SELF -ACC blame COMP said

Unlike *zibun* of *zibun-zisin*, *kare-zisin* does not show Subject Orientation as in (4).

- (4) a. Tanaka sensei $_i$ -ga Ziroo $_j$ -ni kare-zisin $_{i/j}$ -no ronbun-o riidingu -NOM -DAT HE-SELF -GEN paper -ACC reading asainmento tosite ataeta assignment as gave
 - 'Mr. Tanaka gave SELF's paper to Ziroo as a reading assignment.'
 - b. Tanaka sensei $_i$ -ga Ziroo $_j$ -ni zibun $_{i/^*j}$ -no ronbun-o riidingu -NOM -DAT SELF -GEN paper -ACC reading asainmento tosite ataeta assignment as gave
 - c. Tanaka sensei $_i$ -ga Ziroo $_j$ -ni zibun-zisin $_{i/*j}$ -no ronbun-o riidingu -NOM -DAT SELF-SELF -GEN paper -ACC reading asainmento tosite ataeta assignment as gave

Katada (1991)¹ proposes that *zibun* is an operator anaphor, which is raised and adjoined to VP to get an appropriate interpretation in LF, and that its licensing takes place at LF. Since *zibun* can raise by iterative VP adjunctions, it can extend its GC domain and find its subject antecedent outside its immediate clause. In her analysis,

zibun of zibun-zisin raises locally due to the Empty Category Principle (henceforth ECP), but kare of kare-zisin does not move at any level of syntax. However, examples like (5) in Section 1.2 are much more complicated.

1.2. Antecedent of zibun and kare-zisin in a Relative Head Position

In (5), the relative clause head contains an anaphor.

- (5) a. Bill_i -ga [John $_j$ -ga e taipu-sita] $\operatorname{\textit{kare-zisin}}_{i/j}$ -no ronbun-o -NOM -NOM typed HE-SELF -GEN paper -ACC mottekita brought
 - b. Bill_i-ga [John_j-ga e taipu-sita] *zibun* _{i/*j}-no ronbun-o
 -NOM -NOM typed SELF -GEN paper -ACC
 mottekita
 brought

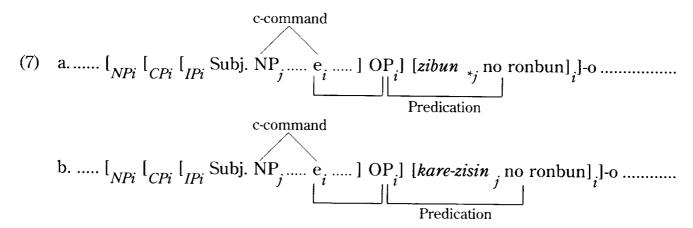
In (5b), *zibun* cannot take the subject *John* of the relative clause as its antecedent unlike *kare-zisin* in (5a). Ishii (1991) and others insist that *kare-zisin* exhibits reconstruction effects (henceforth REs), whereas *zibun* does not. However *zibun*, in fact, exhibits REs in scrambled sentences like (6) (Hoji 1985, Saito 1985/1989, Ishii 1991, among others).

- (6) a. [NP] sono $zibun_i$ -ni tuite-no hon $]_j$ -o $John_i$ -ga e_j suteta the SELF about book -ACC -NOM threw away 'John, threw away the book about himselfi.'
 - b. $[NP]_{S}$ Mary-ga $zibun_{i}$ -ni kureta] hon]_j-o John_i-ga e_j suteta -NOM SELF-DAT gave book -ACC -NOM threw away 'John_i threw away the book that Mary gave to SELF_j.'

(Ishii: 1991, 26)

These studies suggest that REs with *zibun* show up only when the movement is literally undone. This indicates that scrambling can be literally undone in LF, where-

as relativization cannot. According to Ishii (1991), assuming that relativization has nothing to do with the direct head movement², the relationship between the head and the operator or the chain of the moved operator and its trace (Barss (1986)) depends upon the type of predication (Williams (1980)) as illustrated in (7).



Ishii (1991) assumes that reconstruction through predication is possible³. However, in order to explain the contrast between (7a) and (7b), he must stipulate a condition for reconstruction effects with zibun which is more restricted than with kare-zisin or English himself. In other words, reconstruction effects with zibun can be observed only when the movement related to it is literally undone. In (7), since it is not the head of the relative clause, but rather is the empty operator that moves back to the original D-structure position, the relative head is not undone, and thus (7a) with zibun cannot take the subject of the relative clause as its antecedent. He suggests that this special condition for zibun be due to the properties of zibun as an operator anaphor as proposed by Katada (1991). Note that zibun has to wait until LF to be licensed (Katada 1991, Abe 1990, among others). In LF, zibun has already raised to a higher VP leaving its trace behind when the head NP and the moved operator are related by predication. It is too far to hold their predicational relation. On the other hand, since kare-zisin does not move in LF, the predication is completely satisfied. Therefore, kare-zisin can find its appropriate antecedent in the relative clause, which results in the reconstruction effects through predication, contrary the case of zibun.

1.3. A Problem of Previous Analyses

Ishii (1991) and others have attempted to explain the different antecedent distri-

bution of two anaphors, *zibun* and *kare-zisin* in a relative head position in terms of the possibility of reconstruction effects through predication, and properties of *zibun* as an operator anaphor. Their analyses do not explain the degree of marginality of examples like (8). They just treat both as ungrammatical sentences when *zibun* is to be bound by *John*.

(8) a. *[John; -ga e, taipu-sita] [
$$zibun$$
; -no ronbun;]
-NOM typed SELF -GEN paper

'SELF;'s paper that John; typed.'

(Hasegawa, 1988, p.59)

Ishii's analysis predicts that both (8a) and (8b) should be unacceptable (he uses the term "ungrammatical"), because of incomplete predication due to raising of *zibun* to the higher VP in LF. We, however, believe that this contrast in (8) is much more crucial. The next Section 2 will discuss this contrast in terms of the position of *zibun* in D-Structure.

2.0. Two types of "zibun no X"

2.1. Acceptable data

In this section, there are two different types of "zibun no X", that is, two different positions for zibun. One is in the Spec of DP for AGENT zibun, the other is a sister position of the relative clause, at least, under the maximal projection of N.

First, consider examples (9) (10) which show the contrast more clearly than (8).

(9) a. *[Taroo; -ga e honomekasita] zibun; -no intai-ga uwasa ni natta.

-NOM hinted SELF -GEN retirement -NOM rumor became 'SELF;'s retirement that Taroo; hinted at became a rumor.'

- b. *[Taroo, -ga e sengensita] zibun, -no yuushoo-wa mokuzenda.

 -NOM declared SELF -GEN victory -TOP is about to come true.'
- (10) a. [John ; -ga e kesa mituketa] zibun ; nituite no shinbunkiji-wa -NOM this morning found SELF; about newspaper article -TOP hotondo detarame datta.5 almost nonsensical PAST
 - The newspaper article about SELF_i that John_i found this morning was almost nonsensical.'
 - b. [John; -ga e kiita] zibun; -no uwasa-wa omotta izyoo ni hidokatta.
 -NOM heard SELF; -GEN rumor -TOP expected much worse
 'SELF;'s rumor that John; heard was much worse than he expected.
 - c. [John; -ga e gakuseisho-ni hatteiru] zibun; -no syasin-wa
 -NOM student ID -on puts SELF -GEN picture -TOP zissaiyorimo wakaku mieru.

than younger looks

'SELF,'s picture that John, puts on his student ID looks younger than he is.'

The analysis that I mentioned above predicts that (10) should be unacceptable due to incomplete predicational relation between the head NP containing the anaphor and the operator. The examples in (10) are, however, significantly better than (9). We would like to claim in the following section that only (9), but not (10)–(12), should be categorized as ungrammatical because of the violation of condition (C) of the Binding Theory.

If *zibun* of *zibun-zisin* also raises in the LF component as in Katada (1991), (11), which contains *zibun-zisin* in the relative head, should be ungrammatical or have the same degree of marginality as (9), but (11) is perfectly acceptable.

(11) [Taroo $_i$ -ga e syoosetu ni kakiorosita] $zibun_i$ -zisin -no oitati-ga -NOM novel wrote SELF $_i$ -SELF-GEN personal history -NOM

eigakasareru kotoninatta.

be-made into a movie became

'SELF's personal history that $Taroo_i$ wrote as a new novel will be made into a movie soon.'

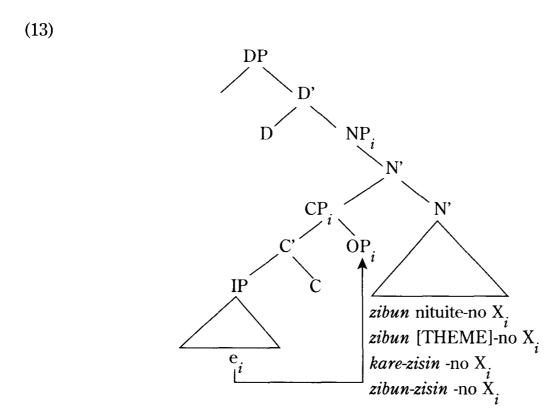
Zibun-zisin of (11) is replaced with zibun in (12), but (12) is quite acceptable.

(12) a. [Taroo ; -ga e syoosetu ni kakiorosita] zibun ; -no oitati-ga
-NOM novel wrote SELF; -GEN personal history -NOM eigakasareru kotoninatta.
be-made into a movie became

Therefore, the marginality of (9) is not due only to incomplete predication by anaphor raising in LF, as the high acceptability of (10), (11), and (12) indicate.

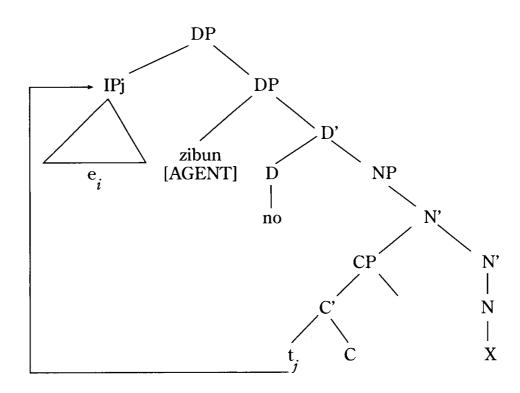
2.2. AGENT zibun vs. Non-AGENT zibun

The contrast suggests that *zibun* in (9) is different from that in (10)–(12). In (9), *zibun* of "*zibun* no X" is assigned AGENT theta-role by X or *no*, whereas *zibun* in (10)–(12) is not. *Zibun* in (9a-b) refers to (a) the person who retires from his job and (b) the person who wins a race, while those in (10)–(12) are interpreted as "THEME of X" or "X about *zibun*." *Zibun* in (9) is generated in a higher position than in (10)–(12). In addition, non-AGENT *zibun* in (10b-c) and (12) are generated under an NP like other anaphors *zibun*-nituite, *zibun-zisin*, and *kare-zisin* in (8b), (10a), and (11). (13) shows the structure of the relative clause in (10)–(12).



In this construction, unless *zibun* raises to the matrix VP, *zibun* can be coreferential with the subject NP in the relative clause through predication in the sense of Ishii (1991). It follows that we observe reconstruction effects in them, even though the relative head contains *zibun*, when the relative clause itself is the matrix subject. Namely, when there is no other candidate for its antecedent in the matrix clause, non-AGENT *zibun* in the relative head position can be coreferential with the subject in the relative clauses. On the other hand, *zibun* in (9), which is an AGENT *zibun* is placed in SPEC of DP, at least in the LF component as illustrated in (14)⁶.

(14)



It is claimed that sentences in (9) are derived by IP scrambling. AGENT *zibun* has nothing to do structurally with the subject NP in the relative clause at S-structure. It follows, thus, that reconstruction effects with AGENT *zibun* are not observed. If scrambling is undone in LF as in Saito (1992), (9) are ruled out by the Condition (C) type of reconstruction effects, but not by incomplete predication. The subject Taroo in (9) is bound by *zibun* after the obligatory undoing of scrambling in LF, if *zibun* is coreferential with the relative clause subject.

Further evidence is provided by the set (15), which are more acceptable than (9). In (15), X of "zibun no X" are "situgyoo" (unemployment) and "syoosin" (promotion) and are unaccusative, that is, subjects are in a lower position than an agentive subject. Their acceptability is almost as high as (10)–(12).

(15) a. [[John; -ga e; naganen yumemitekita] [zibun; -no syoosin];]-ga Mary
-NOM for years hes dreamed SELF -GEN promotion -NOM
tono rikon-no ookina gen'in-ni natta.
from divorce -GEN big reason became
'SELF;'s promotion that John; has dreamed for years was one of the

biggest reason for his divorce from Mary.'

b. [[John_i-ga e_i osoreteita] [zibun_i-no situgyoo]_j]-ga genzitu to natta.

-NOM worried SELF -GEN unemployment -NOM be-realized

'SELF_i's unemployment that John_i had been afraid of was realized.'

3.0. AGENT zibun in the head of Non-Restrictive Relative Clauses

We have, so far, observed that there are two distinct positions for *zibun* of "*zibun* no X". AGENT *zibun* does not allow coreferential reading with the relative clause subject unless *zibun* raises and adjoins to a higher VP. We propose a structure like (14) derived by IP scrambling for relative clauses with AGENT *zibun*. This is reminiscent of the structural relation between a non-restrictive relative clause and its head.

3.1. Reconstruction Effects and Non-Restrictive Relative Clause

Non-restrictive relatives do not exhibit reconstruction effects even with *karezisin*, because non-restrictive relatives in Japanese do not involve any movement, even operator movement (Ishii, 1991; Safir, 1986). Their head-clause relation is a simple predication.

(16) ?*Mary-wa [John -ga taipu-sita] ano $kare-zisin_i$ -no ronbun-o -TOP -NOM typed that HE-SELF -GEN paper -ACC sutete-simatta.

threw away

'Mary threw away that paper of his_i own, which $John_i$ typed' (Ishii, 1991, p.49, with some modifications)

Similar phenomena have been observed in relative clauses with AGENT *zibun*. The reading "AGENT *zibun* = rel.cl. Subj. *Taroo*" in (9) is impossible. The structure suggested in (14) also appropriately predicts that the coreferential reading "zibun = John" is implausible, where the head *zibun* no X does not c-command the relative clause; thus the predicational relation is not possible. If our proposed structure is appropriate for AGENT *zibun*, sentences such as (9) must exhibit the properties of non-restrictive relatives.

3.2. Parasitic Gaps

Non-restrictive relatives do not license parasitic gaps because they do not involve any movement, that is, A'-movement (Ishii, 1991; Safir, 1986). This can be the result of IP (but not CP) scrambling in the structure (14). In other words, parasitic gaps can occur only in restrictive relative clauses. First, consider the non-AGENT case in (17).

- (17) a. e, [e, soitu, -o naganen sokubakusitekita] [zibun, -no oitati], -ACC for years has-restricted SELF, -GEN personal history kara yatto kaihoo sareta [otoko], from managed to be -free man

 'The man who managed to be free from SELF's personal history which had restricted him for years.'
 - b. e [e e naganen sokubakusitekita] [zibun] -no oitati] for years has-restricted SELF; -GEN personal history kara yatto kaihoo sareta [otoko]; from managed to be -free man

Next, suppose that the referent of *zibun* of (18) (=SPEAKER in this case) and Hanako are married. The speaker, who is a businessman, is eager to succeed and get wealth and honor but to forget about his happy days with his wife Hanako. Such a life made her decide to get a divorce from him.

- (18) a. [[e_i sore_j-o kowasita] [zibun_k-no syusse]_i] -ga Taroo-ni e_j
 it -ACC broke SELF -GEN promotion -NOM -DAT
 kookaisaseru gen'in to natta [Hanako tono zinsei]_j
 regret CAUSE cause became with life
 'My life with Hanako which SELF's victory, which broke e_j was the cause of regretting.'
 - b. * $[[e_i e_j \text{ kowasita}] [zibun_k \text{-no syusse}]_i]$ -ga e_j Taroo-ni broke SELF -GEN promotion -NOM -DAT kookaisaseru gen'in tonatta [Hanako tono zinsei]_j regret CAUSE cause became with life

The parasitic gap e_i in (17b) can be licensed even though the acceptability is a little marginal, whereas that in (18b) cannot. The contrast indicates that the relative clauses with AGENT zibun share some structural properties with non-restrictive relative clauses, but not with restrictive clauses in terms of gap licensing.

4.0. Conclusion

This paper has discussed binding of anaphor in the head of the relative clauses. We have suggested, at least two distinct positions of "zibun no X;" one being the SPEC of DP for AGENT zibun, the other being the sister position of the relative clause for non-AGENT zibun. We have claimed that the former, which is derived by IP scrambling, shares some structural properties of non-restrictive relative clauses; and have shown evidence in terms of reconstruction effects and parasitic gaps.

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Notes

- Katada (1991) does not discuss anaphors in genitive case. Ishii (1991) expands her idea to genitive construction, [NPANAPHOR's N] as a relative head.
- 2. Schachter (1973) proposed to directly raise the head NP from the relative clause.
- 3. He extends the term "reconstruction effects" as follows: An anaphor which is not c-commanded by its antecedent at S-structure is well-formed, if it or a phrase related to a phrase that contains it through predication is c-commanded by the antecedent at D-structure.
- 4. Some (Ishii (1991)) judge the coreferential readings in (8b)-(9b) to be impossible.
- 5. Akira Watanabe suggested this example in personal communication.
- 6. As for interpretation of zibun as POSSESSOR, the reading of zibun = Subj. in the relative clause is highly acceptable, as illustrated in (i).
 - (i) zibun = Possessor reading

 - a. [Taroo] ga tuyoku syutyoosita] zibun no aribai ga kaette tatiba-o warukusita. b. [Taroo] ga konkai no zisin de nakusita] zibun no osiego wa 20-nin o koeta. This paper, however, leaves the problem of POSSESSOR zibun open to further study.

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