A TRANSFORMATIONAL STUDY
OF
JAPANESE REFLEXIVIZATION

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A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS
in the Department
of
LINGUISTICS

We accept this thesis as conforming to the
required standard

THE UNIVERSITY OF BRITISH COLUMBIA
April, 1975
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ABSTRACT

Japanese reflexivization has only recently come to linguists' attention in the framework of Chomsky's linguistic model, the transformational generative grammar.

The present thesis, also being based on this newly developed model, is aimed at investigating the nature of the Japanese reflexive system. In effect, the investigation is to become a procedure whereby inconsistencies of the current hypothetical treatments of Japanese reflexivization can be excluded so that a revised proposal can be presented.

The discussion toward a revised proposal is designed to pass through the two phases. First, in Chapter I, by examining Oyakawa's hypothesis, the discussion will focus on the structural positions of the antecedent and its reflexive, which will outline the basic property of Japanese reflexivization. It is also claimed that Langacker's two notions, 'command' and 'precede', are crucial in accounting for the question of the directionality, Forward and Backward reflexivization. The result of the examination will be presented as the revised proposal (I) to conclude
the chapter.

Next, in Chapter II, the second phase of the revision will result from the examination of Akatuka's treatment of Japanese reflexivization. The examination will eventually suggest that the ill-formedness treated by Akatuka stems rather from the inadequacy of what has been allegedly treated as a Japanese reflexive pronoun than from a syntactic reason. Consequently, the alternative to replace the alleged reflexive form will be presented with syntactic evidence in which the existence of the non-human reflexive pronoun is to be pointed out as well. The conclusion to the chapter will be presented as the revised proposal (II) showing that the coreferentiality between the antecedent and the genuine reflexive is really a phenomenon observable only in a simplex sentence.

In Chapter III, some problems left unsolved will be discussed. Having shown that the possible solutions to the problems are not far from being ad hoc so long as we adhere to the standard transformational approach, the alternative solutions will be looked into in the framework of Jackendoff's Interpretive Theory in which, unlike the standard transforma-
tional theory, the antecedent-reflexive relation is to be accounted for in the semantic component rather than the syntactic component. This chapter will be concluded by showing that the interpretive approach is equipped with more explanatory power than the standard transformational approach. All the information obtained through the revision in the preceding chapters will play a crucial role in formulating Japanese reflexivization by the interpretive approach.

In Chapter IV, the conclusions to the preceding three chapters are to be recapitulated so that a schematic representation of Japanese reflexivization is presented as both the conclusion to the present thesis and a tentative conclusion to the issue of Japanese reflexivization.
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CHAPTER I

OYAKAWA'S HYPOTHESIS

AND

THE REVISED PROPOSAL (I)

1 INTRODUCTION

This chapter is mainly concerned with the coreferentiality of the two noun phrases, namely, the antecedent-reflexive relation observable in such sentences as follows:

(1) a. Kunio\textsubscript{i} ga Kenta\textsubscript{j} o zibun\textsubscript{j} no uti de korosita.
   self 's house at killed
   "(Lit.) Kunio\textsubscript{i} killed Kenta at self\textsubscript{i}'s house."

   b. Kenta\textsubscript{i} ga Kunio\textsubscript{j} ni zibun\textsubscript{j} no uti de koros-
      rare-ta.
      by self 's house at kill
      (Pass)
      "(Lit.) Kenta\textsubscript{i} was killed by Kunio at self\textsubscript{i}'s house."

To account for the above-mentioned relation, the discussion is to be mainly based on Oyakawa's two elaborated conditions: the subject-antecedent condition and the high-
est human NP condition. A close examination of the two conditions eventually suggests that we revise Oyakawa's hypothesis itself to avoid its inconsistency. The result of the following discussion will be presented as the revised proposal to conclude the chapter.

1.1 OYAKAWA'S HYPOTHESIS

We shall observe Oyakawa's two conditions which are the most crucial constituents of his hypothesis. In 1.1.1, the subject-antecedent condition is to be observed and in 1.1.2, the highest human NP condition.

1.1.1 The subject-antecedent condition

It is claimed by Oyakawa (1973) that the antecedent of a Japanese reflexive pronoun must be the subject of the sentence. This condition is called the subject-antecedent condition.²

In order to clarify the nature of the above condition, let us observe the underlying structure of (1) first in terms of diagrams. (2.a) and (2.b) correspond to (1.a) and (1.b) respectively.
In the above, (1.b) is the passive version of (1.a). In both sentences, the reflexive zibun 'self' only refers back to the subject. Hence, the reading indicated by the index \( j \) is ungrammatical. The following (3) is a schematized representation of the subject-antecedent condition where NP\( a \) is the subject noun phrase of \( S_1 \) and NP\( r \) is to be reflexivized under the referential identity with NP\( a \).
Thus, the above condition plays a crucial role in determining the antecedent of Japanese reflexive pronoun, whereas this condition does not work in English as illustrated below:

(4) a. Tom showed Jim a picture of himself.

b. Tomga Jim ni zibun no syasin o miseta.
   "(Lit.) Tom showed Jim self's picture."

c. Betty showed Jim a picture of himself.

d. Bettyga Jim ni zibun no syasin o miseta.
   "(Lit.) Betty showed Jim self's picture."

Although the reflexive 'himself' could be coreferential with either 'Tom' or 'Jim' in (4.a), its Japanese translation (i.e. 4.b) only has one reading as shown by the index i. Also, (4.c) indicates that English reflexive pronouns can be co-referential with the direct object of the verb rather than
the subject. This is not the case with its Japanese counterpart (i.e. 4.d) since it is impossible for the reflexive *zibun* 'self' to be coreferential with 'Jim'. Hence, the asterisk for the index j.

Oyakawa also discusses the command condition which is inter-dependent with the subject-antecedent condition.

First, consider the following.

(5)  

a. Kunio^wa Kunio^ga yonda hon o Kenta ni yatta.  
read book to gave  
"Kunio gave the book he read to Kenta."

b. Kunio^wa zibun^ga yonda hon o Kenta ni yatta.  
sel read book to gave  
"(Lit.) Kunio gave the book self read to Kenta."

c. *Zibun^wa Kunio^ga yonda hon o Kenta ni yatta.  
sel. read book to gave  
"(Lit.) *Self gave the book Kunio read to Kenta."

Oyakawa attributes the ungrammaticality of (5.c) to the violation of the command condition which, as first proposed by Langacker (1969:167), is defined as follows:
The command condition

[1] Neither A nor B dominates the other

[2] The S-node that most immediately dominates A also dominates B

if [1] and [2] above meet, we say A 'commands' B.

Now, let us examine whether it is valid or not for the command condition to block such ungrammatical sentences as (5.c). The schematical underlying structure of (5.c) follows as (7).

(7)

In the above, NPa and NPr meet the command condition. In other words, NPa 'commands' NPr, but not vice versa because the S-node immediately dominating NPr (i.e. S2) does not dom-
inate NP\textsubscript{a}. Since there are two coreferential noun phrases, NP\textsubscript{a} and NP\textsubscript{r} in (7), reflexivization may seem to apply either forward (i.e. 5.b) or backward (i.e. 5.c). However, reflexivization does not operate backward. Obviously, it is the **command condition** that blocks the backward application of reflexivization.

From the foregoing, Oyakawa (1973 : 118) gives the definition of the **subject-antecedent condition** along with the **command condition** in the following way:

(8) **The subject-antecedent condition**

The antecedent of the reflexive must be the subject of a sentence and commands the coreferential NP to be reflexivized.

The above condition, according to Oyakawa, not only blocks the ungrammatical (5.c), but also tells us predictably that the following sentences are ambiguous.

(9) a. Kunio\textsubscript{i} wa Kenta\textsubscript{j} ni zibun\textsubscript{i} j no kuruma o untensuru to self 's car drive koto o tanonda. that asked

"(Lit.) Kunio\textsubscript{i} asked Kenta\textsubscript{j} to drive self\textsubscript{j}'s car."
(9) b. Kunio wa Kenta ga zibun no koto o yuu no o self 's thing say that kiratta. hated

"(Lit.) Kunio hated Kenta to talk about self."  

c. Kunio wa Kenta ni zibun no syukudai o yar- by self 's homework do sase-ta.  
(Caus)  

"(Lit.) Kunio made Kenta do self's homework."  

d. Kunio wa Kenta ni zibun no mono o araw- by self 's stuff wash sase-ta.  
(Caus)  

"(Lit.) Kunio made Kenta wash self's stuff."  

Notice that Kenta above is underlyingly the subject of the embedded sentence, which would be shown more clearly in the following simplified underlying structure of (9.a).
NP₄ above can be reflexivized, being coreferential with either NP₁ or NP₂, for NP₁ and NP₂ are respectively the subject of S₁ and S₂ and command NP₄ at the same time. Therefore, nothing prevents NP₄ from being reflexivized under the referential identity with either NP₁ or NP₂.

The above (10) is, in fact, ambiguous and so are the other sentences in (9).

(9.c) and (9.d) are only different from the other sentences in that a causative sase 'make (someone) do (something)' is involved in them. But the account of their am-
biguity is not out of line with that for (9.a). We would assume the underlying structure of (9.c), for example, in the following two ways:

(11)

```
NP4  no syukudai

Kunio1

NP2  VP

S2

NP3  V

Kenta

NP2  VP

sase-ta (Caus)

In the above, NP4 is coreferential with NP2 that is the subject of the embedded S2. Therefore, in the S2 cycle, reflexivization applies and results in the reading indicated by 1 in (9.c), while the resultant second reading is possible when NP4 is coreferential with NP1, the subject of the matrix sentence as shown in (11).

Thus, according to Oyakawa, the subject-antecedent condition along with the command condition determines the anteced-
cedent of the reflexive in a crucial manner in Japanese reflexivization.

1.1.2 The Highest Human NP Condition

Another of Oyakawa's significant conditions is the highest human NP condition.

First, let us consider the following which is to provide us with the preliminary access to our main concern in the section.

(12) a. History₁ repeats itself₁.

b. *Rekisi₁, ga zibun₁ o kurikaesu.
   history self repeat
   "(Lit.) *History₁ repeats self₁."

Unlike English, the Japanese reflexive pronoun has only one form\(^5\) zibun 'self' regardless of gender, number and person. Furthermore, the Japanese reflexive pronoun carries \([+\text{human}]\) feature with it\(^3\) implying that non-human noun phrases are unable to be the antecedent of zibun 'self'. Hence, in the above example, rekisi 'history' is never eligible for the antecedent of the reflexive in (12.b). We would need a condition, therefore, to block ungrammatical
sentences such as (12.b). The condition which follows is due to Oyakawa (1973:95).

(13) The humanness condition

The antecedent of the reflexive must be human.

Next, observe the following of Oyakawa's sentences:

(14) a. Zibun_no gakusee no kageki na koodoo ga self's student's radical behaviors

Yamada-sensee_o kyoosyoku kara sirizok-sase-ta.
Prof. teaching from retire (Caus)

"(Lit.) The radical behaviors of self_i's students made Prof. Yamada_i retire from teaching."

b. Syatyoo no kettei to zibun_no iken no kuitigai ga president's decision and self's opinion discrepancy

Tanaka-butyoo_ni aimai na taido o tor-sase-ta.
Director by unclear attitude maintain (Caus)

"(Lit.) The discrepancy between the president's decision and self_i's opinion caused Director Tanaka_i to maintain an unclear attitude."

(15) a. Zibun_no gakusee no totta kageki na koodoo ga self's student adopted radical behaviors

Yamada-sensee o kyoosyoku kara sirizok-sase-ta.
Prof. teaching from retire (Caus)
"(Lit.) The radical behaviors that self’s students adopted made Prof. Yamada retire from teaching."

(15) b. Zibun no yarakasita tumaranai hema ga self made silly mistake 

Suzuki-si o meir-sase-ta. Mr. be depressed (Caus)

"(Lit.) The silly mistake that self made depressed Mr. Suzuki."

(16) a. Zibun no gakusee ga kageki na koodoo o self’s student radical behaviors totta koto ga Yamada-sensee o kyoosyoku kara adopted that Prof. teaching from sirizok-sase-ta.

retire (Caus)

"(Lit.) That self’s students adopted radical behaviors caused Prof. Yamada retire from teaching."

b. Syatyoo ga zibun ni dake kaisya no kimitu o president self to only company’s secret morasita koto ga kaikeigakari o tomadow-sase-ta.

told that accountant be puzzled (Caus)

"(Lit.) That the president told the company’s secret only to self puzzled the accountant."

Notice that the above sentences manifest one peculiar syn-
tactic feature; that is, the subject of the sentence is non-human. According to Oyakawa, the sentences in (14), (15) and (16) have a "nominally complex NP subject", a "sententially complex NP subject", and a "sentential NP subject" respectively. Whatever the structure of the subject may be, what is noteworthy here is that all sentences are perfectly grammatical despite the absence of a human subject. In other words, the subject-antecedent condition does not hold in the above examples, which would suggest that another condition is needed in accounting for the reflexive-antecedent relation in these sentences.

In order to give a reasonable explanation to the subject matter here, Oyakawa assumes the highest human NP condition in terms of the hierarchical relation of the two coreferential noun phrases. Oyakawa (1973:112) defines the condition as follows:

(17) **The highest human NP condition**

"(When a sentence does not satisfy the subject-antecedent condition, ) only the highest human noun in the structural hierarchy is allowed to be coreferential with the reflexive."
To see how the condition works, consider the following (18.a), (18.b) and (18.c) which represent the underlying structure of (14.a), (15.a) and (16.a) respectively.

(18) a.
In the above schematization, NP\textsubscript{1}, the subject of S\textsubscript{1}, is non-human regardless of its structure. Therefore, as shown in (16), the highest human NP condition takes place, allowing only the hierarchically highest human noun phrase (i.e. NPa) to be coreferential with NPr.

Thus, in Oyakawa's hypothesis, the subject-antecedent condition and the highest human NP condition are applying in a mutually exclusive way. In addition, according to Oyakawa, both conditions dictate the direction in which reflexivization operates; that is, the former condition accounts for Forward reflexivization, whereas the latter, for
Backward reflexivization. Since the two conditions are mutually exclusive, and do not apply to the same coreferential noun phrases at the same time, the ungrammaticality of the following (19), in which Forward reflexivization has been applied to the sentences in (14.a), (15.a) and (16.a) respectively, is self-explanatory.

(19) a. *Yamada-sensee, no gakusee no kageki na koodoo ga Prof. 's student radical behaviors

zibun, o kyoosyoku kara sirizok-sase-ta.
self teaching from retire (Caus)

"(Lit.) *The radical behaviors of Prof. Yamada,'s students made self, retire from teaching."

b. *Yamada-sensee, no gakusee no totta kageki na Prof. 's student adopted radical

koodoo ga zibun, o kyoosyoku kara sirizok-behaviors self teaching from retire

sase-ta.
(Caus)

"(Lit.) *The radical behaviors that Prof. Yamada,'s students adopted made self, retire from teaching."

c. *Yamada-sensee, no gakusee ga kageki na koodoo o Prof. 's student radical behaviors
totta koto ga zibunō kyoosyoku kara sirizok adopted that self teaching from retire sase-ta.
(Caus)

"(Lit.) *That Prof. Yamada's students adopted the radical behaviors caused self retire from teaching."

With the information obtained through the foregoing observation, we shall examine Oyakawa's subject-antecedent condition and highest human NP condition in section 1.2 and, as a result of this examination, it will be suggested that Oyakawa's hypothesis as based on the two conditions be revised.

1.2 AN EXAMINATION OF OYAKAWA'S HYPOTHESIS

The examination of the subject-antecedent condition and the highest human NP condition is in effect an examination of the hypothesis. In 1.2.1, we shall present the counter-argument to Oyakawa's treatment of Forward and Backward reflexivization. In 1.2.2, some counter-examples to the two conditions are to be treated, whereby the inconsistencies in Oyakawa's hypothesis become obvious.

As both a conclusion to the chapter and a result of the
preceding examination, a revised proposal will be presented.

1.2.1 Forward and Backward Reflexivization

As to the direction in which Japanese reflexivization takes place, Oyakawa (1973:123-124) says:

(20) "....the choice between Forward and Backward Reflexivization is uniquely predetermined by the hierarchical structure of a given sentence in terms of functions, such as subject, and a relation, i.e. command, of two coreferential NPs in the sentence. In this sense, there is no need to use linear order to account for Japanese Reflexivization. That is, the 'directionality' expressed by terms forward and backward does not count in the syntactic operation of reflexivization, for all the necessary information is provided outside of the notion."

What is highly implausible in the above quotation is that Oyakawa mentions the syntactic relation — "subject" — and "a relation" of coreferential noun phrases — "command" — as the elements to predetermine the "directionality". In fact, contrary to Oyakawa's expectation, the two elements never "predetermine" Forward and Backward reflexivization "uniquely".

In order to show that Oyakawa's treatment of the question of "directionality" is implausible, we can present the following two types of sentences.
First, Oyakawa himself cites (21) from Kuno (1972). The structure underlying (21) follows as the diagram (22).

(21) Sono keiken ga Hanako \textsubscript{i} ni zibun \textsubscript{j} ga baka dearu 
that experience to self fool is
koto o osieta.
that taught

"(Lit.) That experience taught Hanako \textsubscript{i} that 
self \textsubscript{j} was a fool."

(22)

\[
\text{In this underlying structure, the subject NP}_1 \text{ of } S_1 \text{ cannot be the antecedent of the reflexive pronoun, for the humanness condition disqualifies the non-human subject sono keiken 'that}\
\]
experience' as a candidate for the antecedent of the reflexive. In other words, the humanness condition predicts that S1 does not meet the subject-antecedent condition. Hence, as the highest human NP condition dictates, only the hierarchically highest human noun phrase (i.e. NP2) is eligible for being the antecedent of the reflexive. Consequently, reflexivization takes place forward between NP2 and NP1, changing the latter noun phrase into the reflexive pronoun 'zibun 'self'. Therefore, the following account of Backward reflexivization by Oyakawa (1973:119) is implausible.

(23) "One way to explain why Backward Reflexivization, instead of Forward Reflexivization, takes place in them would be to say that the subject-antecedent condition cannot be met for an obvious reason: the position of subject is occupied by something else which does not naturally qualify for the antecedent of the reflexive. The fact that the condition is not satisfied calls for Backward Reflexivization."

Example (21) above does not meet the subject-antecedent condition, yet, rather than calling for Backward Reflexivization as Oyakawa expects, it "calls for" Forward Reflexivization.

Likewise, the forward manifestation of Japanese reflexivization observable in the causative sentences below cannot
be accounted for if we adhere to (23) above.

(24) a. Senkyo no kekka ga Kunio ni zibun no election result by self 's mizyu kusa o sator sase ta. immaturity realize (Caus)

"(Lit.) The result of election made Kunio realize self 's immaturity."

b. Kenta no zyogen ga Kunio ni zibun no 's advice by self 's ayamati o natto kus sase ta. mistake understand (Caus)

"(Lit.) Kenta 's advice made Kunio understand self 's mistake."

c. Issatu no hon ga Kunio ni zibun no taido o one book by self 's attitude kette is sase ta. decide (Caus)

"(Lit.) One book made Kunio decide self 's attitude."

Recall that causativization precedes reflexivization to make Oyakawa's highest human NP condition valid as we have observed in (14) through (16). In (24.a) above, for example, only the forward application of reflexivization is possible since the highest human noun phrase is the one which precedes
its coreferent after causativization has applied. The following schematization represents this point more clearly.

(25)

The second type of sentences which also show that Oyakawa's treatment of Backward reflexivization is implausible are the thematized sentences. 5

(26) a. Kunio₁wa zibun₁no tomodati ga sinda.
(self₁'s friend died)

"(Lit.) As for Kunio₁, self₁'s friend died."

b. Kunio₁wa zibun₁ga katta takarakuzi ga attata.
(self₁ bought lot fell on)

"(Lit.) As for Kunio₁, the lot which self₁ bought won the prize."

It is clear that the subject-antecedent condition is
not accountable for the above sentences since in (26) the subject itself contains the reflexive pronoun and the antecedent is not the subject but the theme. The diagrams (27.a) and (27.b) represent the schematized underlying structures of (26.a) and (26.b) respectively.

(27) a.

```
So
   /\   /
  NPa  S1
     /\  /
    Kuno  NP
         /
        NPr no tomodati
               |
               s friend
               /
               Kuno
               /
               sinda
               /
               died
```

(27) b.

```
So
   /\   /
  NPa  S1
     /\  /
    Kuno  NP
         /
        S2  VP
               /
               takarakuzi
               |
               lot
               /
               Kuno
               /
               NPr
               /
               VP
               /
               taka
               bought
```

Notice that NPr above, which is one constituent of a nominally complex NP subject (i.e. 26.a) or a sententially complex NP subject (i.e. 26.b), is coreferential with NPa, the theme of So. Thus, it is impossible for S1 to meet the subject-antecedent condition since it does not have coreferential noun phrases in the S1 cycle. Then, the highest human noun phrase NPa is to be identified as the antecedent of the reflexive. 6

Although Oyakawa seems to fail to notice it, the highest human NP condition plays a crucial role in determining the antecedent-reflexive relation even in the thematized sentences. Hence, the sentences in (26) above are counterexamples to Oyakawa's hypothesis; that is, the highest human NP condition applies forward. Therefore, Oyakawa's explanation of the "directionality" in Japanese reflexivization as quoted in (20) and (23) is highly implausible. In order to account plausibly for this subject matter, it is necessary to develop an alternative explanation.

Now, recall that Oyakawa in (20) discards the linear information of two coreferential noun phrases as irrelevant in Japanese reflexivization, saying that "there is no need
to use linear order to account for Japanese reflexivization."
Nevertheless, we are able to give a very plausible account for the "directionality" of reflexivization by taking into consideration the very thing Oyakawa rejects as irrelevant, namely, the linear order of coreferential noun phrases. The "directionality" of Japanese reflexivization is simply predetermined by whether or not the noun phrase precedes the coreferential noun phrase to be reflexivized. What follows represents this relationship clearly:

(28)

<table>
<thead>
<tr>
<th>NPa</th>
<th>follows commands</th>
<th>NPr</th>
<th>precedes commands</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Forward reflexivization</td>
<td></td>
<td>Backward reflexivization</td>
</tr>
</tbody>
</table>

where: NPa and NPr are coreferential human noun phrases

To sum up the foregoing, we may say that the very thing Oyakawa discards as irrelevant (i.e. linearity) plays a significant role in predetermining which direction Japanese reflexivization takes, along with the information of the hierarchical order of noun phrases concerned (i.e. command). In addition, we do not have to rely on the two different elements
to account for the "directionality" as Oyakawa does: the syntactic relation 'subject', on the one hand, and the hierarchical order 'command', on the other. Instead, the linear and hierarchical positions of coreferential noun phrases correctly predict which direction Japanese reflexivization operates in.

1.2.2 More Counter-examples To Oyakawa's Hypothesis

Now, let us proceed to the further examination of Oyakawa's hypothesis, dealing with some more counter-examples.

First, observe the following sentences in (29) which are cited from Oyakawa:

(29) a. Zibun\textsubscript{i} no kenzyuu o nakusita keikan\textsubscript{i} ga butyoo\textsubscript{j}ni nakituita.

"(Lit.) The policeman, who lost self's service revolver
implored the chief."

b. Hensyuutyoo\textsubscript{i} wa zibun\textsubscript{i} no denki o kaita syoosetuka\textsubscript{j}ni mannenhitu o okutta.

"(Lit.) The editor presented a fountain pen to the novelist who wrote self's biography."
The above (29.a) should fall under Backward reflexivization. But, Oyakawa attributes this to an example of Forward reflexivization, giving the following deep structure.

(30)

\[
\begin{array}{c}
S_1 \\
NP \\
S_2 \\
NP_2 \\
keikan_i \\
VP \\
NP \\
V \\
\{keikan_i, \\
policeman\} \\
NP_3 \\
\text{no's service} \\
\text{revolver} \\
\{butyoo, \\
\text{chief}\} \\
nakusita \\
\text{lost} \\
\end{array}
\]

In the S₂ cycle of (30), keikan 'policeman' can be reflexivized under the referential identity with NP₂, the subject of S₂, before relativization takes place. Oyakawa, however, does not mention why butyoo 'chief' must be discarded as an illegal candidate for the reflexive. In other words, he does not mention how the application of reflexivization between NP₃ and NP₄ is blocked. Comparing (30) with (31), the underlying structure of (29.b), we can see this point clearly.
Notice that (31) is the underlying structure of the ambiguous sentence. NP_4 of this structure may be coreferential with either NP_1 or NP_3. Then, why is it that butyoo 'chief' in (30) has no chance of being reflexivized under the referential identity with NP_4, the highest human noun phrase of S_1? To explain this inconsistency, one might say that S_1 does not meet the highest human NP condition because it has the human subject zibun no kenzyuu o nakusita keikan 'the policeman who
lost his service revolver' in the $S_1$ cycle. Then, consider the sentence (32) which is followed by its simplified underlying structure (33).

(32) Zibun$i$ no kao-zyasin ga insatus-rare-ta koohosya$i$ no self $i$'s face-picture printed (Pass) candidate's posutaa ga yuukensya$i$ ni kubar-rare-ta. poster voter to hand-to (Pass)

"(Lit.) The candidate$i$'s posters in which self$i$'s portrait was printed was handed to the voters."

(33) The subject-antecedent condition is not met in the $S_2$ cycle above because $S_2$ has the non-human subject $NP_3$, koohosya no kaozyasin 'candidate's portrait'. Hence, the highest human
noun phrase NP2 koohosya 'candidate' is to be identified as the antecedent of NP4. Then, in the S1 cycle, S1 does not have the human subject in the same sense as in (29.a).

Therefore, the same argument that discards the unacceptable reading of (29.a) can no longer hold to block the ungrammatical sentence as indicated by j in (32). This is a serious counter-example to Oyakawa's hypothesis.

To avoid this inconsistency, we must revise Oyakawa's hypothesis in some way. Notice that, in all the examples above, the antecedent of the reflexive has a common property in that the antecedent is the left-most human noun phrase. More precisely, in both (29.a) and (30), NP2 is the left-most human noun phrase in the S2 cycle and reflexivization applies forward in the same manner as Oyakawa's. Next, in the S1 cycle, NP1, which is now a constituent of S1, is the left-most human noun phrase after NP2 was deleted in virtue of reflexivization. Notice, also, that NP2 and NP1 here are identical noun phrases. Hence, a non-ambiguous sentence or the ungrammatical reading indicated by index j in (29.a).

The ungrammatical reading or non-ambiguity of (32) can be
accounted for along exactly the same line. The left-most noun phrase in the $S_2$ cycle and the $S_1$ cycle is identical in (32), too. The ambiguity of (29.b) is also predictable; that is, in (31) NP$_3$ is the left-most human noun phrase in terms of $S_2$, and the left-most position is occupied by the human noun phrase NP$_1$ in the $S_1$ cycle. NP$_3$ and NP$_1$ are not identical noun phrases this time. Hence, the ambiguous sentence (29.b).

Second, the following sentences are another type of counter-examples to Oyakawa's hypothesis, and support the notion 'left-most' in Japanese reflexivization as well.

(34) a. Zibun$_i$ *jga tootoo maketa koto ga Kunio$_i$ ni self at last defeated that by Kentajo minaos-sase-ta. think-better-of (Caus)

"(Lit.) That self$_i$ was defeated at last made Kunio$_i$ think better of Kenta."

b. Zibun$_i$ *jga gosinsur-rare-ta koto ga Kunio$_i$ni self diagnosed(Pass) that by erroneously isya o koros-sase-ta. doctor kill (Caus)

"(Lit.) That self$_i$ was diagnosed erroneously made Kentai$_i$ kill the doctor."
These sentences have the sentential NP subject with a non-human noun koto 'that' as its head noun and, at the same time, there are two human noun phrases in the hierarchically highest position. (35) below represents the structure underlying (34.a), for example.

(35)

The above S₁ does not satisfy the subject-antecedent condition because of its non-human subject NP₁, so that the highest human NP condition applies, producing the confusing situation.

In other words, there are two human noun phrases, NP₃ and NP₄, in the same hierarchical level. As the index j in (34.a) shows, NP₄ is not eligible for the antecedent of NP₂. Oyakawa would account for this saying that reflexivization must precede the
application of causativization since NP3 Kunio used to be the subject of an embedded sentence, while NP4 Kenta used to be the direct object as shown in the following schematic underlying structure (36). However, this treatment only makes the situation worse.

\[(36)\]

Although NP3 Kunio is the highest human noun phrase, it does not command NP2, the coreferent noun phrase, anymore since S3 immediately dominating NP3 does not dominate S2 in (36). Hence, nothing prevents reflexivization from applying forward to produce the ungrammatical sentence. (That S1 does not meet the subject-antecedent condition never implies reflexivization takes place backward. (c.f. 21, 24, and 26)) In neither case, does the highest human NP condition hold to account for the
grammatical sentence (35.a).

It is important to notice that once again the linearly left-most position of the human noun phrase in (35) is occupied by the legal candidate for the antecedent of NP2 to be reflexivized.

With the crucial notion 'left-most', we can systematically account for what Oyakawa's hypothesis cannot. It may be said, therefore, that Oyakawa's hypothesis must be revised to be equipped with more descriptive adequacy with the information of the linear order (left-most), and the hierarchical order (command) as well, of the two coreferential noun phrases.

1.2.3 The Top-most Human NP Condition

The next argument suggesting the need for a revision of Oyakawa's hypothesis stems from the following Oyakawa's sentences.

(37) Housyuseitoo no ooboosa to zibun1 no sizensitekita conservative 's unreason- and self 's supported party ableness

seiitoo no fuhai ga sono gakusee no ootoo no party 's corrup- that student 's younger 's brother tion
As seen in its English translation, (37) has a non-human subject so that the highest human NP condition is responsible for the antecedent-reflexive relation. Now, notice that the antecedent sinyuu 'best friend' is the highest human noun phrase in the nominally complex structure. To show this clearly, Oyakawa gives the schematized surface structure of relevant noun phrases of (37) as follows:

![Diagram](image-url)
Oyakawa (1973:112) supports the validity of his highest human NP condition from the preceding fact, saying that:

(39) "...the complexity of a nominally-complex NP can be increased as much as you want, yet only the highest human noun in the structural hierarchy is allowed to be coreferential with the reflexive."

However, we are able to show that (39) above never supports the validity of the condition in question. Rather, what Oyakawa says as (39) is the case regardless of the highest human NP condition or the subject-antecedent condition.

To clarify this point, let us consider (40) below.

(40) a. Zibun_no denki o dasita koto ga sono gakusee no self's published that that student's biography

otooto no sinyuu no haha^o yuumei ni sita.
younger's best's mother famous made
brother friend

"(Lit.) That self's biography was published
made that student's younger brother's
best friend's mother famous."

b. Sono gakusee no otooto no sinyuu no haha^ ga

that student's younger's best's mother
brother friend

zibun_no denki o dasita.
self's biography published
"(Lit.) The student's younger brother's best
friend's mother's published self's
biography."

(41.a) is a schematic representation of the nominally complex
noun phrase which (40) above has in common. (41.b) and (41.c)
represent the underlying structure of (40.a) and (40.b) respectively.

(41) a.

(41) b.
The nominally complex noun phrase (41.a) is different from the one in (37) in that the noun phrase (41.a) is itself human. In (41.b), this nominally complex structure is in the direct object position. The highest human noun phrase haha 'mother' is the antecedent of the reflexive as (39) dictates. It is thus clear that the highest human NP condition is responsible for (40.a) because of its non-human subject.

Now, we must notice that the same noun phrase haha 'mother', the highest human noun phrase in the nominally complex structure, is also the antecedent in (40.b) as shown in (41.c). Nevertheless, the sentence at issue cannot be an example of the highest human NP condition since its subject (i.e. NP1) is human. (Recall that the highest human NP condition and the subject-antecedent condition are mutually exclusive.)
Thus, the subject-antecedent condition is responsible for (40.b), yet (39) is still true with (40.b).

For the foregoing reason, we must reject the claim that the quotation (39) supports the highest human NP condition. Furthermore, in order to validate (39) which is the case regardless of the two conditions, we need a condition allowing no constituent but the highest human noun phrase within the nominally complex noun phrase to be eligible for the antecedente of the reflexive.

Therefore, we are proposing that such a condition be called the top-most human NP condition, and that this condition be defined as follows:

(42) The top-most human NP condition

The antecedent of the reflexive must be the top-most human noun phrase if the eligible antecedent is the nominally complex noun phrase.

It must be worth recapitulating that the quotation (39) is the case with both the subject-antecedent condition and the highest human NP condition so that (39) no longer supports
the highest human NP condition only, and, as a result, the condition (42) above is independent of Oyakawa's two conditions.

1.2.4 The Revision Of Oyakawa's Hypothesis

To conclude the examination of Oyakawa's hypothesis, we shall present a revised proposal based on the foregoing examination.

First, observe the following.

(43) a. 

\[ S_1 \]

\[ \text{NPa}_1 \quad \text{NPr} \]

b. 

\[ S_1 \]

\[ \text{NPa}_1 \quad \text{S}_2 \]

\[ \text{NPa}_2 \quad \text{NPr} \]

where: \( \text{NPa}_1(\text{NPa}_2) \) and \( \text{NPr} \) are coreferential human noun phrases. \( \text{NPa}_1(\text{NPa}_2) \) is the subject of \( S_1(S_2) \).

The schematization (43) is a simplified representation of the sentence structure which meets the subject-antecedent condition. (43, b) could be the underlying structure of either non-ambiguous or ambiguous sentences. When \( \text{NPa}_1 \) is not equal to \( \text{NPa}_2 \), sen-
tences are ambiguous with NPr being coreferential with either the former noun phrase or the latter (c.f. 9). When NPa\textsubscript{1} equals to NPa\textsubscript{2}, non-ambiguous sentences result.

It is important to notice here that the crucial notion 'left-most' discussed previously is also valid to describe the above configurations. Therefore, we may say about these configurations that the antecedent of its reflexive is the left-most human noun phrase in a given S cycle. Also, notice that reflexivization applies forward in the above cases, since the antecedent (the left-most human noun phrase) precedes its coreferent (c.f. 28).

Next, let us take a look at the configurations in (44).

(44) a. 

\[ S_1 \]
\[ NPs \quad \text{[-human]} \quad NPa \quad S_2 \]
\[ \quad NPr \]

where: NPa and NPr are coreferential human noun phrases.

NPs is the subject of S\textsubscript{1}. 
where: NPa and NPr are coreferential human noun phrases.
NPa is the theme of S1.
NPs is the subject of S2.

These two configurations are intended to show the cases where S2 does not satisfy the subject-antecedent condition and NPa, the highest human noun phrase, can be the antecedent of the reflexive. As shown in 1.2.1, (44) is also peculiar in that it is not an instance of the subject-antecedent condition, yet reflexivization takes place forward. (c.f. 21, 24 and 26). Nevertheless, NPa is the left-most human noun phrase and commands NPr to be reflexivized. Thus, (44) can be accounted for along the same line as (43). Notice that we are also able to predict the forward manifestation of reflexivization quite systematically; that is, in (44) the antecedent precedes its reflexive as does that in (43).

What follows is the case where the backward manifestation of reflexivization is observable.
(45) a.

\[ \begin{array}{c}
\text{S}_1 \\
\text{NPs} \\
\text{[-human]} \\
\text{NPr} \\
\text{NPa}
\end{array} \]

where: NPa and NPr are coreferential human noun phrases.
NPs is the subject of S₁.

b.

\[ \begin{array}{c}
\text{S}_1 \\
\text{NPs} \\
\text{[-human]} \\
\text{S}_2 \\
\text{NPr}
\end{array} \]

The configuration (45.a) represents the sentence structure whose subject position is occupied by a nominally complex non-human noun phrase, while (45.b) corresponds to the sentence structure that has either the sententially complex NP subject or the sentential NP subject (c.f. 14, 15 and 16).
In any case, a given sentence that has one of the underlying structures of (45) comes about to manifest Backward reflexivization.

Closer examination easily makes us aware that the de-
scription of preceding (43) and (44) does not differentiate from that of (45) above; that is, the antecedent of the reflexive is NPa which is the left-most human noun phrase, commanding its coreferent as shown in the configurations.

The backward application of reflexivization is due to the linear order of the two coreferential noun phrases: the noun phrase to be reflexivized precedes its coreferent, which is quite predictable from (28).

Japanese reflexivization, therefore, may be defined in terms of the linear and hierarchical order of two coreferential noun phrases in the following way:

(46) **Japanese Reflexivization**

In a given S that dominates two coreferential noun phrases, NPa and NPr, change NPr into the reflexive pronoun **zibun** 'self' if NPa is the left-most human noun phrase and also commands NPr.

This definition must be accompanied by the **top-most human NP condition** proposed in (42) so that no left-branching noun phrase of a nominally complex noun phrase can be the ante-
From the foregoing, it may also be said that what Oyakawa really implies by his two conditions is the linear and hierarchical positions of two coreferential noun phrases. The subject-antecedent condition is one special case of Forward reflexivization where the left-most human noun phrase is accidentally the subject of a sentence. Furthermore, our definition (46) in terms of the linear and hierarchical order of the antecedent and its reflexive is able to account for Japanese reflexivization in a uniform manner, whereas Oyakawa uses two different factors: the syntactic relation 'subject' and the hierarchical position 'command'. 
Our discussion of Japanese reflexivization has been based on Oyakawa's two elaborated conditions, the subject-antecedent condition and the highest human NP condition. Our closer examination of the conditions eventually led us to the conclusion that information about the linear order of two coreferential noun phrases is crucially needed as well as the hierarchical information, although Oyakawa in his hypothesis dismisses the linear information as irrelevant.

Moreover, it may be said that Japanese reflexivization is, as correctly observed by Oyakawa, "the unitary operation" resulting in either Forward or Backward reflexivization as the surface phenomenon. This surface manifestation is predetermined depending on whether or not the left-most human noun phrase precedes its coreferential noun phrase.

To conclude the chapter, we present, as a result of the foregoing discussion, the revised proposal (I), which will be given greater elaboration in the next chapter.
The Revised Proposal (I)

Japanese Reflexivization

(i) In a given S that dominates two coreferential noun phrases, NPa and NPr, change NPr into the reflexive pronoun zibun 'self' if NPa is the left-most human noun phrase and also commands NPr.

(ii) When the antecedent is the nominally complex noun phrase, only the top-most human noun phrase is eligible for the antecedent.

(iii) When NPa precedes NPr, reflexivization applies forward, resulting in Forward reflexivization superficially. When NPa follows NPr, Backward reflexivization results.
NOTES FOR CHAPTER I

1. All example sentences are to be written in Roman alphabet with the following conventions.
   
   i. The conjugation of verbs is shown only when it is relevant to the discussion.
   
   ii. The following abbreviations are adopted throughout the present thesis.
       
       (Pass) — passive marker
       (Caus) — causative
       (Lit.) — literal translation

2. Oyakawa's definition of the subject-antecedent condition is to be quoted later as (8) in this section.

3. In relation to this, observe the following.
   
   (12) b'. Rekisi wa sorezitai o kurikaesu.
       history itself repeat
       'History repeats itself.'

   Unlike (12.b), this sentence is grammatical suggesting that there seems to be a non-human reflexive pronoun in Japanese. This point is to be discussed later in 1.2.1, Chapter II.

4. Oyakawa does not mention the precedence of causativization over reflexivization explicitly. However, we may say so for the following reason. Consider Oyakawa's examples.
   
   (i) a. Zibun ga hutatabi erabareta koto ga Satoo san o odorok sase ta.
       self again elected that Mr.
       be surprised (Caus)
       '(Lit.) That self was elected again surprised Mr. Satoo.'

   b. Zibun no hon ga uredasita koto ga syoo setuka in ni syoorai e no kiboo o ataeta.
       self's book start-selling that writer to future to hope gave
       '(Lit.) That self's book started selling well gave the writer a hope for his future.'
(i) c. Zibun, no an ga saiyoosareta koto ga sono
self's plan adopted that the
kikakubuin o utyootenisisita.
member of delighted
the planning staff

"(Lit.) That self's plan was adopted delighted
the member of the planning staff."

In order to account for the reflexive-antecedent relation in (i), Oyakawa gives the underlying structure of (i.a), for example, as follows:

(ii)

Oyakawa's explanation (1973:107) reads:

(iii) "This underlying structure presents a situation where the antecedent Sato-san 'Mr. Sato' for Backward Reflexivization is the embedded subject NPa so that the subject-antecedent condition might be considered as valid. However, there are other cases like (22d-e) which are not causative sentences, so they cannot be explained by this condition."

In the quotation, (22.d) and (22.e) correspond to (i.b) and (i.c) respectively.

Thus, according to Oyakawa, all examples in (i) fall under the highest human NP condition. Notice that the condition in question and the subject-antecedent condition are mutually exclusive. Therefore, in order that S1 in (ii) meets the highest human NP condition, S3 cannot have the human subject NPa. In other words, the highest human NP condition can be responsible for (i.a) only when NPa is a constituent of S1, a higher sentence. Hence, causativization precedes reflexivization.

5. By "the thematized sentence", we imply the sentences as follows:
(i)  Zoo  wa  hana  ga  nagai.
elephant  trunk long
"(Lit.) As for the elephant, the trunk is long."

(ii)  UBC ni  wa  Nitobe-garden  ga  aru.
in  is
"(Lit.) As for in UBC, the Nitobe garden is there."

What we must bear in mind here as relevant to our main concern is that the thematic noun phrases Chomsky-adjoin to the left-most position, and also that the intervening particle deletion depends upon the kind of particle. In the above examples, for instance, the intervening particle no (genitive) must be deleted to derive (i) from the following (i''), whereas ni (locative) may not be deleted in (ii) whose non-thematized structure is (ii'') below.

(i'')  Zoo no hana ga nagai.
elephant 's trunk long
"(Lit.) Elephant's trunk is long."

(ii'')  Nitobe-garden ga UBC ni aru.
in  is
"The Nitobe garden is in UBC."

6. Consider the sentences in (i).

(i)  a.  Kunio ga Kenta o zibun\_3\_no uti de korosita.
self\_1\_s house at killed
"(Lit.) Kunio killed Kenta at self's house."

b.  Kenta ga Kunio ni zibun\_3\_no uti de koros-
rare-ta.
by self\_1\_s house at kill
(Pass)
"(Lit.) Kenta was killed by Kunio at self's house."

c.  Kunio ni wa Kenta ga zibun\_3\_no uti de koros-
rare-ta.
by self\_1\_s house at kill
(Pass)
"(Lit.) As for by Kunio, Kenta was killed at self's house."
In these examples, (i.c) is different from (i.b), the passive version of (i.a), in that the b-sentence has the thematic noun phrase Kunio ni wa 'As for by Kunio'. It must be noticed here that Kunio, the thematic noun phrase, has no chance of being the antecedent of the reflexive but only Kenta, the subject of the sentence can be.

Ogawa (1974:137) correctly observes this and gives a solution of the problem in the following way:

(ii) 1. The subject-antecedent condition takes precedence over the theme-antecedent condition.

2. The theme-antecedent condition is suspended, by virtue of the subject-antecedent condition, when the subject which intervenes between a thematic NP and its identical NP is human.

3. If the intervening subject is not human, reflexivization applies.

The theme-antecedent condition above is the condition that determines the thematic noun phrase as the antecedent of the reflexive.

Notice that we may modify what Ogawa says in (ii) into such a way as (iii) below since the thematic noun phrase is also the highest human noun phrase.

(iii) The highest human NP condition does not apply if the human subject intervenes between a theme and its reflexive.

Noticeably, (iii) above is the paraphrase of (17) in 1.1.2. In other words, (ii) is not necessary. Rather, the highest human NP condition along with the subject-antecedent condition plays a significant role in determining the antecedent of the reflexive even in the thematized sentence structure without any modification. Therefore, Ogawa's solution is virtually redundant as well as such a condition as the theme-antecedent condition.

7. See note 4 above.

8. What follows is Oyakawa's (1973:124) conclusion to the question of "directionality" in Japanese reflexivization.

"....what we have called Forward and Backward Reflexivization are the surface results of the unitary operation."

This conclusion of Oyakawa's is supported by our analysis of Japanese reflexivization in terms of the linear and hierarchi-
cal order of two noun phrases concerned, for the definition we have proposed in (46) clearly implies that Japanese reflexivization is able to be accounted for in a uniform way regardless of the direction in which it applies.
CHAPTER II

AKATUKA'S LIKE-NP CONSTRAINT

AND

THE REVISED PROPOSAL (II)

2 INTRODUCTION

We are concerned with the ungrammaticality of such sentences as these:

(48) a. *Kunio\textsubscript{ wa} zibun\textsubscript{i o} tataita.
    self  hit

    "Kunio hit himself."

b. *Kunio\textsubscript{ wa} zibun\textsubscript{i ni} kuruma o katta.
    self to car  bought

    "Kunio bought a car to himself."

These sentences differ entirely from those discussed previously in that each simplex sentence above perfectly satisfies the reflexivization condition (47), yet each is ungrammatical.\footnote{1} Therefore, a further condition would be needed to block such sentences as (48).

In regard to this, Akatuka proposes the syntactic constraint, the Like-NP Constraint, and the two relevant trans-
formational rules which are fully examined in the course of the following discussion. The examination of them will eventually suggest that Akatuka's constraint and two rules be discarded as inadequate and that the possibility of an alternative solution be looked into. Consequently, we shall have to determine whether or not the alleged Japanese reflexive pronoun zibun 'self' is a genuine reflexive form. As the conclusion to the chapter, we shall present our proposal based on the examination.

2.1 AKATUKA'S LIKE-NP CONSTRAINT

In the following three sections, we shall examine in detail Akatuka's Like-NP Constraint and two related transformational rules — Inalienable-Possessor-Deletion and Unspecified-Body-Deletion.

2.1.1 The Like-NP Constraint

Akatuka (1772:30) proposes the constraint as quoted below in (49), using the notion 'peer' whose definition by Postal (1970:178-179) also follows:
(49) **The Like-NP Constraint**

"(The constraint) discards the sentences as ungrammatical if the reflexive and its antecedent are in peer relation."

(50) **The peer relation**

"Two NP, NP₁ and NP₂, neither of which dominates the other....in a phrase marker P are peers with respect to a node Si, just in case the paths between each of these NP and Si are such that they contain no NP-nodes not separated from the starting point NP, NP₁ or NP₂, by a node Sᵢ."

The underlying structure of (48.a) is given in (51) to see how the constraint is able to account for the ungrammaticality.

(51)

```
  S
 /\   \    
|  V'  |   
/\   /\    
| NP₁| NP₂|   
|    |    |   
| Kunio | Kunio | tataita |
|       |       |  hit   |
```

In this underlying structure, NP₁ is perfectly eligible to be the antecedent of NP₂ since the former is the left-most human noun phrase which also commands the latter. However, reflexivization between these two coreferential noun phrases must be blocked. For, according to Akatuka, NP₁ and NP₂ are "in peer relation". Hence, (48.a) is ungrammatical. Furthermore, it
is important to notice that the constraint in question remains in effect only between "the two maximum NP's in the simplex sentence". Therefore, the following sentences given by Akatuka do not violate the Like-NP Constraint.

(52) a. Hirosi\textsubscript{i} wa zibun\textsubscript{i} no titi o sonkei site iru.  
    self \textsubscript{i}'s father respect is  
    "(Lit.) Hirosi\textsubscript{i} respects self\textsubscript{i}'s father."

b. Hirosi\textsubscript{i} wa oyahukoomono no zibun\textsubscript{i} o hazita.  
    unfilial son self ashamed of  
    "(Lit.) Hirosi\textsubscript{i} was ashamed of unfilial self\textsubscript{i}."

c. Hirosi\textsubscript{i} wa kagami ni ututta zibun\textsubscript{i} o nagameta.  
    mirror in reflected self looked at  
    "(Lit.) Hirosi\textsubscript{i} looked at self\textsubscript{i} who was reflected in the mirror."

In (52.a) above, the reflexive zibun 'self' is the left-branching noun phrase of the direct object titi 'father', while in (52.b) and (52.c) the reflexive occupies the direct object position as the head noun of the relative clause. Hence, the above sentences are exempt from the Like-NP Constraint. The following diagrams illustrate the preceding point more clearly. (53.a), (53.b) and (53.c) correspond to (52.a), (52.b) and (52.c) respectively.
(53) a.

\[
S \quad \rightarrow \quad NP_1 \quad \rightarrow \quad Hirosi_i \quad NP_2 \quad \rightarrow \quad no \quad \text{father} \quad Hirosi_i \quad \downarrow \quad zibun \quad self \\
\]

b.

\[
S \quad \rightarrow \quad NP_1 \quad \rightarrow \quad Hirosi_i \quad NP \quad \rightarrow \quad S \quad NP_2 \quad \rightarrow \quad hazita \quad ashamed \quad of \\
\quad \quad \quad \rightarrow \quad NP \quad \rightarrow \quad Hirosi_i \quad VP \quad \rightarrow \quad zibun \quad self \\
\quad \quad \quad \rightarrow \quad Hirosi_i \quad NP \quad \rightarrow \quad ovahukoomono \quad da \quad unfilial \quad son \quad is \\
\]

c.

\[
S \quad \rightarrow \quad NP_1 \quad \rightarrow \quad Hirosi_i \quad NP \quad \rightarrow \quad S \quad NP_2 \quad \rightarrow \quad nagameta \quad looked \quad at \\
\quad \quad \quad \rightarrow \quad NP \quad \rightarrow \quad Hirosi_i \quad VP \quad \rightarrow \quad zibun \quad self \\
\quad \quad \quad \rightarrow \quad Hirosi_i \quad NP(Loc.) \quad \rightarrow \quad kagami \quad mirror \quad ututta \quad reflected \\
\]
In these diagrams, NP\textsubscript{1} and NP\textsubscript{2} are not in peer relation because they are not "the two maximum NP's in the simplex sentence". Therefore, reflexivization may take place between the two coreferential noun phrases, resulting in the grammatical sentences.

Thus, as far as such sentences in (48) are concerned, the \textbf{Like-NP Constraint} is crucial.

2.1.2 \textbf{Inalienable-Possessor-Deletion and Unspecified-Body-Deletion}

Akatuka proposes two transformational rules which are inter-related with the constraint above. Let us observe the sentences in (54) in relation to the two rules at issue.

(54) a. *Kunio\textsubscript{i} wa zibun\textsubscript{i} o tataita.
    self hit
    "Kunio hit himself."

b. Kunio\textsubscript{i} wa zibun\textsubscript{i} no hoo o tataita.
    self 's cheek hit
    "(Lit.) Kunio\textsubscript{i} hit self\textsubscript{i} 's cheek."

c. Kunio wa Kenta o tataita.
    hit
    "Kunio hit Kenta."
d. Kunio wa Kenta no hoo o tataita.
"Kunio hit Kenta on his cheek."

Akatuka (1972:33) accounts for the ungrammaticality of (54.a) in the following way:

(55) "...if the action identified by the verb affects the subject NP, then the specific body part must be mentioned..., otherwise the sentence is ill-formed."

Contrary to what is mentioned in (55), the specific body part does not have to be mentioned if the subject noun phrase is not affected by the action identified by the verb in such a case as (54.c) where not the subject Kunio but the direct object Kenta was hit. In order to explain why it is the case here, Akatuka first assumes that "a class of Japanese verbs of physical contact are really 3-place predicates in the deeper level". By the "3-place predicates", Akatuka seems to imply that the verb in this category obligatorily requires the actor, the one who is affected by the action, and the specific body part the action affects to be in the deeper level. The two transformational rules we are primarily concerned with
here are based on this assumption.

Let us consider the following (56) in which the underlying structure of (54.b) and (54.d) are given as (56.a) and (56.b) respectively.

(56) a.

In the above schematization, three places in question are occupied by NP₁, NP₂ and NP₃. According to Akatuka, **Inalienable-Possessor-Deletion** is responsible for the derivation of (54.b) and (54.d) from (56.a) and (56.b) respectively, deleting the direct object (i.e. NP₂). For
the derivation of (54.a) and (54.c), another transformational rule, Unspecified-Body-Deletion, is to be applied to the underlying structures in (56). The application of the rule yields (54.a) and (54.c) from (56.a) and (56.b) respectively, deleting NP3 above. The Like-NP Constraint, then, discards (54.a) as ungrammatical.

Akatuka also accounts for the ungrammaticality of the following (58.b) along the same lines as above. The sentences in (57) and (58) are all cited from Akatuka.

(57) a. Tanaka wa Satoo o nagutta.
    hit
    "Tanaka hit Satoo."

   b. Satoo wa Tanaka ni nagur-rare-ta.
    by hit (Pass)
    "Satoo was hit by Tanaka."

(58) a. Tanaka wa Satoo no atama o nagutta.
    's head hit
    "Tanaka hit Satoo on his head."

   b. *Satoo no atama wa Tanaka ni nagur-rare-ta.
    's head by hit (Pass)
    "(Lit.) *Satoo's head was hit by Tanaka."
(58) c. Satoo wa Tanaka ni atama o nagur-rare-ta.  
   by head hit (Pass)  
   "Satoo was hit on his head by Tanaka."

d. Satoo-iwa Tanaka ni zibun-i no atama o nagur-
   by self 's head hit
   rare-ta.  
   (Pass)  
   "(Lit.) Satoo, was hit on self_i 's head 
    by Tanaka."

(57.b) is the passive sentence derived from its active counterpart (57.a). To yield the passive sentence (57.b), the subject-object inversion took place and, then, the passive marker rare was attached to the main verb naguru 'hit'. This same derivational process, however, cannot result in the grammatical passive version of (58.a). Either (58.c) or (58.d) is really the correct passive sentence of (58.a). According to Akatuka, in the "deeper level" of (57.a) and (58.a), which both share the 3-place predicate naguru 'hit' as shown in the following schematic representation, they have the underlying structure in common.
Inalienable-Possessor-Deletion deletes NP₂ in (59) to result in (58.a), while Unspecified-Body-Deletion is responsible for the derivation of (57.a), deleting NP₃ of (59).

As for (58.c) and (58.d), their derivational process would be illustrated in the following way.

(60) a. Satoo wa Tanaka ni Satoo no atama o nagur-rare-ta.  
    by 's head hit (Pass)  

    "(Lit.) Satoo was hit on Satoo's head by Tanaka."

b. Satoo₁ wa Tanaka ni zibun₁ no atama o nagur-rare-ta.  
    by self 's head hit (Pass)  

    "(Lit.) Satoo₁ was hit on self₁'s head by Tanaka."

c. Satoo₁ wa Tanaka ni ḋ atama o nagur-rare-ta.  
    by head hit (Pass)  

    "(Lit.) Satoo was hit on ḋ head by Tanaka."

The application of passivization to (59) results in (60.a).
Reflexivization changes *Satoo* in *Satoo no 'Satoo's* into *zibun* 'self' with the subject noun phrase, *Satoo*, being the antecedent in (60.b). When *∅*-pronominalization operates instead of reflexivization, (60.c) results. Thus, it is claimed by Akatuka that the above-mentioned peculiar phenomenon in Japanese passivization can be accounted for only when we assume that "a class of Japanese verbs of the physical contact are really 3-place predicates in the deeper level".

Now, with the information from the preceding observation, we shall examine Akatuka's two transformational rules and constraint so that we can present some counter-examples and counter-arguments to them.

2.1.3 Examination of Akatuka's two rules and constraint

First, consider the following sentences which are the crucial counter-examples to the Like-NP Constraint.

(61) a. *Konboo o motta Kunioiwa zibunio tataita.*  
stick had *self* hit

"(Lit.) Kunioi who had a stick hit selfi."
Compare the above with the sentences in (48). (61.a) and (61.b) differ from (48.a) and (48.b) respectively only because the subject noun phrase is the head noun of the relative construction, whereas the subject of (48) is the maximum noun phrase. Recall that the reflexive pronoun cannot occupy the direct/indirect object position if it is in peer relation with the subject noun phrase. Therefore, the sentences in (61) must be blocked as unacceptable. The Like-NP Constraint, however, does not hold in (61). For, the constraint is valid only when the two coreferential noun phrases are maximum noun phrases. By showing the relevant part of (61.a) and (61.b) schematically, we can demonstrate this point more precisely.

(62) a.

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(61) b. *Okane o motta Kunio1 wa zibun1 ni kuruma o katta.
  money    had    self to car bought

"(Lit.) Kunio1 who had money bought self1 a car1."
```
Notice, in the above, that neither NP₂ nor NP₃ of NP₁, the subject noun phrase of (61), is the maximum noun phrase. The notion 'peer' is the one defined between two maximum noun phrases as we observed in regard to the examples in (52). Hence, reflexivization may take place between NP₂, the head noun phrase of NP₁, and its coreferential noun phrase in the direct object position (i.e. 61.a), or the indirect object position (i.e. 61.b). As a result, the ungrammatical sentences are produced.

Thus, it is obvious that the Like-NP Constraint is not plausible enough to be responsible for the incorrect application of Japanese reflexivization.

Second, we observed that Akatuka's one ground for assuming the "3-place predicate" stems from Japanese passivization.
In order that we can present the counter-argument to this account of the "3-place predicates", let us compare (57) and (58) in the previous section with what follows.

(63) a. Kunio wa Kenta no inu o kakusita.
    "Kunio hid Kenta's dog."
b. 'Kenta no inu wa Kunio ni kakus-rare-ta.
    "Kenta's dog was hidden by Kunio."

c. Kentaw_ wa Kunio ni zibun_ no inu o kakus-rare-ta.
    "(Lit.) Kenta had self's dog hidden by Kunio.'"

d. Kenta_ wa Kunio ni _ inu o kakus-rare-ta.
    "(Lit.) Kenta had _ dog hidden by Kunio."

(64) a. Kunio wa Kenta no biiru o nonda.
    "Kunio drank Kenta's beer."

b. 'Kenta no biiru wa Kunio ni nom-rare-ta.
    "Kenta's beer was drunk by Kunio."
c. Kenta wa Kunio ni zibun no biiru o nom-rare-ta.
by self's beer drink (Pass)

"(Lit.) Kenta had self's beer drunk by Kunio."

d. Kenta wa Kunio ni Ø biiru o nom-rare-ta.
by beer drink (Pass)

"(Lit.) Kenta had Ø beer drunk by Kunio."

(64) a. Kunio wa Kenta no hon o utta.
's book sold

"Kunio sold Kenta's book."

b. Kenta no hon wa Kunio ni ur-rare-ta.
's book by sell (Pass)

"Kenta's book was sold by Kunio."

c. Kenta wa Kunio ni zibun no hon o ur-rare-ta.
by self's book sell (Pass)

"(Lit.) Kenta had self's book sold by Kunio."

d. Kenta wa Kunio ni Ø hon o ur-rare-ta.
by book sell (Pass)

"(Lit.) Kenta had Ø book sold by Kunio."

The above b-sentences are in marginal acceptance unless they are direct translations from a foreign language. Either the c-sentences or the d-sentences are acceptable passive sen-
tences of the a-sentences. Notice, here, that the verbs involved in the above examples are not the verbs of "physical contact". Nevertheless, we are able to observe the same behavior of Japanese passivization as that claimed by Akatuka in (57) and (58) previously: the ordinal subject-object inversion cannot result in grammatical passive sentences. Therefore, we must say that what Akatuka claims is not an isolated phenomenon on the verbs of "physical contact" but one observable in Japanese passivization in general; that is, under a certain condition, the person who is affected by the action identified by the verb may occupy the subject position by virtue of passivization.5

Akatuka's ground to assume the verbs of "physical contact" as the "3-place predicates" is thus highly ad hoc.

Third, closer examination of the verbs of "physical contact" also raises another serious counter-argument, which consequently leads us to the conclusion that the constraint and the two rules by Akatuka must be discarded.

Consider the following.
71

(66)  a. *Kunio_i wa zibun_i o kaita.
   self  scratched
   "(Lit.) Kunio_i scratched self_i."
b. Kunio_i wa zibun_i no senaka o kaita.
   self 's back  scratched
   "(Lit.) Kunio_i scratched self_i's back."
c. *Kunio wa Kenta o kaita.
   scratched
   "Kunio scratched Kenta."
d. Kunio wa Kenta no senaka o kaita.
   's back  scratched
   "Kunio scratched Kenta's back."

(67)  a. *Kunio_i wa zibun_i o sasutta.
   self  stroked
   "(Lit.) Kunio_i stroked self_i."
b. Kunio_i wa zibun_i no ude o sasutta.
   self 's arm  stroked
   "(Lit.) Kunio_i stroked self_i's arm."
c. *Kunio wa Kenta o sasutta.
   stroked
   "Kunio stroked Kenta."
d. Kunio wa Kenta no ude o sasutta.
   's arm  stroked
   "Kunio stroked Kenta's arm."
What we must notice here is that all the verbs used in (66) through (68) are the verbs of "physical contact", yet they require the specific body part to be mentioned whether or not the action identified by the verb affects the subject noun phrase. In other words, all the c-sentences above are ungrammatical since the specific body part is not mentioned. Otherwise, they are grammatical as the d-sentences show. Also, compare (54.c), which is grammatical, with the c-sentences above, which are ungrammatical. The specific body part does not have to be mentioned in (54.c), whereas it has to be
mentioned in the c-sentences. Therefore, the ungrammaticality of (54.a) in the previous section is not due to what (55) says, for some verbs seem to semantically and obligatorily require the specific body part to be mentioned and some do not, regardless of the syntactic function of the noun phrase to be affected by the action identified by the verb.

In addition, Akatuka's classification of the verbs of "physical contact" itself is not clear. Observe the sentences in (69), (70) and (71).

(69) a. *Kunio_i wa zibun_i o aratta.
    self   washed

    "(Lit.) Kunio_i washed self_i."

b. Kunio_i wa zibun_i no senaka o aratta.
    self's back   washed

    "(Lit.) Kunio_i washed self_i's back."

c. *Kunio wa Kenta o aratta.
    washed

    "Kunio washed Kenta."

d. Kunio wa Kenta no senaka o aratta.
    's back   washed

    "Kunio washed Kenta's back."
(70) a. *Kunio_i wa zibun_i o tumanda.
    self    held

    "(Lit.) Kunio_i held self_i."

b. Kunio_i wa zibun_i no hana o tumanda.
    self's nose    held

    "(Lit.) Kunio_i held self_i's nose."

c. *Kunio wa Kenta o tumanda.
    held

    "*Kunio held Kenta."

d. Kunio wa Kenta no hana o tumanda.
    's nose    held

    "Kunio held Kenta's nose."

(71) a. *Kunio_i wa zibun_i o fusaida.
    self    covered

    "(Lit.) Kunio_i covered self_i."

b. Kunio_i wa zibun_i no kuti o fusaida.
    self 's mouth    covered

    "(Lit.) Kunio_i covered self_i's mouth."

c. *Kunio wa Kenta o fusaida.
    covered

    "*Kunio covered Kenta."

d. Kunio wa Kenta no kuti o fusaida.
    's mouth    covered

    "Kunio covered Kenta's mouth."
We are not sure if the verbs involved in the above examples fall under "a class of the verbs of physical contact" or not. We may say, however, that in (69) through (71), the specific body part must be mentioned when the verbs in question are used in the sense of "physical contact". In other words, the verbs at issue are examples which semantically require the three arguments, regardless of the noun phrase to be affected by the action identified by the verb.

Now, recall that Akatuka assumes the following to block the a-sentences in (66) through (71).

(i) A class of verbs of physical contact must have three arguments in the deeper level

(ii) Unspecified-Body-Deletion transformation

(iii) Inalienable-Possessor-Deletion

(iv) The Like-NP Constraint

If we adhere to Akatuka, in (66) through (71), rule (ii) is responsible for the blocking of the a and c-sentences, while the b and d-sentences are derived by the transformational rule (iii). Then, the constraint (iv) marks the a-sentences
as ungrammatical. Notice, however, that the ungrammatical c-sentences are to be left unmarked. Thus, if we were to follow the above-mentioned (i) - (iv), the ungrammatical sentences result.

To sum up the examination, we may conclude that closer examination of Akatuka's constraint and two related transformational rules suggests that these are inadequate for the foregoing three reasons. Therefore, it is necessary for us to discard them entirely.

Our examination, however, has itself given no solution to the problem of why the reflexive pronoun cannot emerge in the direct/indirect object position. In the following sections, we shall reconsider the inadequacy of the alleged reflexive zibun 'self', so that we are able to propose an alternative solution to the problem which remains unsolved.

2.2 THE GENUINE REFLEXIVE AND THE REVISED PROPOSAL (II)

First, in 2.2.1, we shall treat the zibunzisin-form as another candidate for a Japanese reflexive. Then, in 2.2.2, to justify the zibunzisin-form as the genuine reflexive, the
treatment of the alleged reflexive zibun 'self' is to be discussed, which is virtually to suggest that reflexivization in Japanese be a phenomenon of the simplex sentence. The result of the following sections will be presented as the revised proposal (II) and as a conclusion to the chapter.

2.2.1 **Another Candidate For The Reflexive Pronoun**

Let us first consider the examples below to get the basic idea of the bound morpheme -zisin which would be crucial in order to tackle the problem left unsolved in the previous section.

(72) a. Kunio ga syatyoo ni natta.
    president to became

    "Kunio became the president (of a company)."

 b. Kunio-zisin ga syatyoo ni natta.
    president to became

    "Kunio himself became the president (of a company)."

(73) a. Kunio ga Kenta ni syukudai o yar-sase-ta.
    by homework do (Caus)

    "Kunio made Kenta do the homework."
The b-sentences convey the contrastive meaning in comparison with the a-sentences. Thus, the bound morpheme -zisin functions as a sort of emphazizer, giving the word to which -zisin is attached the contrastive meaning. Notice, also, that the non-contrastive sentences (i.e. a-sentences) must be perfectly grammatical before the bound morpheme is attached.

Now, bearing the above information in mind, compare the following sentences in (74) with those in (48) which is cited here again from the previous section.

(48) a. *Kunio_\textsubscript{1} wa zibun_\textsubscript{1} o tataita.

\hspace{1em} self \hspace{1em} hit

"Kunio hit himself."

b. *Kunio_\textsubscript{1} wa zibun_\textsubscript{1} ni kuruma o katta.

\hspace{1em} self to car \hspace{1em} bought

"Kunio bought a car to himself."
Example (74) is only different from (48) in that the alleged reflexive zibun-form is replaced with the zibunzisin-form. What is important here is that (48) must be blocked as ungrammatical, while (74) is perfectly well-formed. Remember that Akatuka accounts for the ungrammaticality of (48) by saying that the zibun-form in (48) is unacceptable because it is "in peer relation" with its coreferential noun phrase. Being "in peer relation" with its coreferent, however, the zibunzisin-form is perfectly acceptable in (74). Why is it the case here?

Furthermore, it is unlikely that the zibunzisin-form in (74) can be treated along the same line as that in (72) and (73); namely, as a compound word. For, there exists no non-contrastive version for (74); possible non-contrastive sentences are ungrammatical as shown in (48). The treatment of the zibunzisin-form, therefore, must differentiate from that
of the bound morpheme -zisin.

The above fact would suggest that the ungrammaticality in question should not be attributed to the syntactic relation, such as the peer relation of two coreferential noun phrases, and also that the adequacy of the zibun-form as the reflexive pronoun be reconsidered.

Therefore, let us assume for the time being that the reflexive pronoun in Japanese is not the alleged zibun-form but the zibunzisin-form. Hence, the ungrammaticality of (48) is not due to the violation of such a syntactic constraint as the Like-NP Constraint, but is simply due to the inadequacy of the zibun-form as the reflexive pronoun.

If the reflexive pronoun is really the zibunzisin-form, we are able to account for the following otherwise ignored phenomenon quite systematically in exactly the same manner as above.

Consider the following examples, first.

(75) a. Mizu\_iwa sorezitai\_in tetubun o fukunde iru.
water itself in iron contain is

"(Lit.) Water\_i contains iron in itself\_i."
The sorezitai-form in these examples is the non-human counter-part of the zibunzisin-form. (Henceforth, zibunzisin and sorezitai are translated as 'oneself' and 'itself' respectively for ease of reference.) Although it is used less frequently than zibunzisin 'oneself', sorezitai 'itself' in Japanese behaves in exactly the same fashion as its human counter-part; that is, sorezitai 'itself' in (75) is co-referential with the left-most non-human noun phrase which also commands sorezitai 'itself'. The following (76) represents this more clearly.

(76) a.

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(75) b. Taiyoo\textsubscript{\textunderscore}wa sorezitai\textsubscript{\textunderscore}kara hikari o dasu.
the sun itself from light emit

"(Lit.) The sun emits the light from itself.""
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In the diagrams, NP₁ is the left-most noun phrase commanding NP₂, sorezitai 'itself'. Hence, NP₁ and NP₂ perfectly meet reflexivization with NP₁ being the antecedent (c.f. 47).

(Incidentally, these sentences must be blocked as ungrammatical if we adhere to Akatuka's Like-NP Constraint, since the two noun phrases are in peer relation.)

Again, it must be noticed that the claim that sorezitai 'itself' is a compound word, consisting of the demonstrative sore 'it' and the bound morpheme -zitai does not hold; that is, the bound morpheme can be attached only to the grammatical sentences in order that the sentences to which -zitai is attached convey the contrastive meaning. The following (77) and (78) show an example.
(77) a. Mizu ni eiyoo ga aru.
water in nutrition is

"(Lit.) Nutrition is in water."

b. Mizu-zitai ni eiyoo ga aru.
water in nutrition is

"(Lit.) Nutrition is in water itself."

(78) a. Kunio no zizyoden ga rippana syoosetu da.
's autobiography excellent novel is

"Kunio's autobiography is an excellent novel."

b. Kunio no zizyoden-zitai ga rippana syoosetu da.
's autobiography excellent novel is

"Kunio's autobiography itself is an excellent novel."

Thus, sorezitai 'itself' behaves just like its human counterpart, zibunzisin 'oneself'. So long as we treat the zibunform as the reflexive, we are bound to fail to realize this relation between zibunzisin 'oneself' and sorezitai 'itself', which share the above-mentioned common characteristics. In other words, unless we reject the notion to treat the zibunform as the reflexive, we cannot cope with the non-human reflexive pronoun.
To sum up, as an alternative proposal to Akatuka's *Like-NP Constraint*, we have so far claimed that the genuine reflexive pronoun in Japanese is not the alleged *zibun*-form but the *zibunzisin*-form. Furthermore, should it be so, the otherwise ignored *sorezitai* 'itself' can be treated in exactly the same manner as *zibunzisin* 'oneself'.

Then, what is the *zibun*-form? This question will be the main topic in the following section, in order that we can further elaborate our proposal.

2.2.2 The Treatment Of Zibun 'self'

If the reflexive pronouns are really *zibunzisin* 'oneself' and *sorezitai* 'itself' in Japanese, the reason why we have the *zibun*-form such as in (80) is our main concern in this section.

(80) Kunio₁ wa Kenta ni zibun₁ o waraw-rare-ta.

*by self laugh at (Pass)*

"(Lit.) Kunio₁ had Kenta laugh at self₁."

First, observe the sentences in (81) through (84).
Watasi wa Kenta ni I to \( \text{watasi}_1 \) ga iku to itta. zibun \( \text{self}_1 \) "I said to Kenta that I would go."

Anata wa Kenta ni you to \( \text{anata}_1 \) ga iku to itta. zibun \( \text{self}_1 \) "You said to Kenta that you would go."

Kunio wa Kenta ni he to \( \text{kare}_1 \) ga iku to itta. zibun \( \text{self}_1 \) "Kunio said to Kenta that he would go."

Watasi wa \( \text{watasi}_1 \) no hon o yonda. zibun \( \text{self}_1 \) "I read my book."

Anata wa \( \text{anata}_1 \) no hon o yonda. zibun \( \text{self}_1 \) "You read your book."

Kunio wa \( \text{kare}_1 \) no hon o yonda. zibun \( \text{self}_1 \) "Kunio read his book."
(83) a. Watasi wa Kenta ni
by {watași o syookai-sase-ta.
I introduce (Caus)
zibun i self

"I made Kenta introduce me."

b. Anata wa Kenta ni
by {anata o syookai-sase-ta.
you introduce (Caus)
zibun i self

"You made Kenta introduce you."

c. Kunio wa Kenta ni
by {kare o syookai-sase-ta.
he introduce (Caus)
zibun i self

"Kunio made Kenta introduce him."

(84) a. Watasi wa Kenta ni
I by {watași ni kuruma o kau
to car buy
zibun i self
koto o nattoku-sase-ta.
that agree (Caus)

"I made Kenta agree to buy me a car."

b. Anata wa Kenta ni
you by {anata ni kuruma o kau
you to car buy
zibun i self
koto o nattoku-sase-ta.
that agree (Caus)

"You made Kenta agree to buy you a car."
As shown above, the zibun-form is fully interchangeable with the personal pronouns without changing the meaning of the sentences. The zibun-form, however, differentiates from others in the following two aspects.

(i) Zibun 'self' refers to the first, the second and the third person as shown in (81) through (84).

(ii) Also, zibun 'self' is entirely free from a major feature of the Japanese language, the speech level. (It is not the case with the other pronouns.)

In relation to what the above (ii) implies, it would be easier to observe the examples below.

(85) a. (Watasi wa) ima {watasi I no uti de gozaimasu. I's house at be(formal)
               | zibun I 's house at be(informal)
               | bre I (informal)

"I am at my home now."
(85) a'. (Ore_i wa) ima
   ore_i no uti da.
   I now ore_i 's house be(informal)
   zibun_i self
   *watasi_i (formal)

   "I am at my home now."

b. (Anata_i wa) ima
   anata_i no uti ni irassyaimasu ka?
   now anata_i 's house at be(formal)
   zibun_i self
   *omae_i (informal)

   "Are you at your home now?"

b'. (Omae_i wa) ima
   omae_i no uti ni iru ka?
   you now omae_i 's house at be(informal)
   zibun_i self
   *anata_i (formal)

   "Are you at your home now?"

c. (Ano kata_i wa) ima
   ano kata_i no uti ni
   that person now ano kata_i 's house at
   zibun_i self
   *aitu_i that person(informal)

   irassyaimasu.
   be(formal)

   "That person is at his home now."
That person is at his home now.

In Japanese the verb of a sentence generally controls the speech level. In the above, the a, b, and c-sentences have the verbs in formal form, whereas the a', b', and c'-sentences have the informal form. The zibun-form can be co-occurrent with both forms, but the others cannot.

In addition to the above observation, we are able to present four more reasons to postulate the zibun-form as a personal pronoun, rather than a reflexive pronoun.

First, consider the following sentences by Hirakouji (1973:17-18). All sentences are cited here with minor changes.

(86) a. Zibun wa sanzyuusan-sai de arimasu.
    self    thirty-three-years copula
    "I am thirty-three years old."

    a'. Zibun-zisin wa sanzyuusan-sai de arimasu.
    self    thirty-three-years copula
    "(I don't know about others, but) I am thirty-three years old."
(86) b. Zibun wa siai-no-tame kesseki simasita.
   self game-because of absent did
   "I was absent (from the class) because of the game."

b*. Zibun-zisin wa siai-no-tame kesseki simasita.
   self game-because of absent did
   "(I don't know about others, but) I was absent (from the class) because of the game."

Hirakouji treats zibun 'self' in (86.a) and (86.b) as jargon, differentiating them from those in (86.a') and (86.b'). Hirakouji's explanation (1973:18) reads:

(87) "They(86.a-b) used to be uttered by people who belonged to the army. Some students who commit themselves to a university sports club which places them under a strict discipline often use sentence like (2)....The zibun's in (3) and (4) are not necessarily such jargon. They are used in a ordinary conversation."

In the quotation, (2), (3) and (4) corespond to (86.b), (86.a') and (86.b') respectively. Notice that we can plausibly account for the zibun-form above, postulating zibun 'self' as a personal pronoun; that is, although it is jargon, zibun 'self' in (86.a) and (86.b) is a personal pronoun which is free from the speech level. (In fact, zibun
'self' to refer to the first person was employed in the army in order to maintain the simplest way of communication without the formality. Also, it is used in a university sports club or the like where the army-like strict order is kept.) As to (86.a') and (86.b'), they are the contrastive versions of (86.a) and (86.b) (c.f. 72 and 73).

Second, consider the following examples.

(88) a. Zibun wa doo desu ka?
   self how is

   "How about you?"

b. Zibun ga kinasai !
   self come

   "(You) come!"

In these examples, the zibun-form refers to the second person. Unless zibun 'self' is treated as a personal pronoun, this occurrence of zibun 'self' must be differentiated from the other occurrences. However, as shown in (i) previously, that zibun 'self' refers to the second person as a personal pronoun is quite predictable. Thus, with zibun 'self' as a personal pronoun, we can give a systematic account for both
(86) and (88) in exactly the same manner.

Third, observe the following causative sentences. (89,a) is Akatuka's.

(89) a. Taroo_iwa Ziroo_jni zibun_i*jo nagur-sase-ta.  
    by self    hit (Caus)  
    "(Lit.) Taroo_i made Ziroo hit self_i."  

b. Kunio_iwa Kenta_jni zibun_i*jo kak-sase-ta.  
    by self    paint (Caus)  
    "(Lit.) Kunio_i made Kenta paint self_i."  

c. Kunio_iwa Kenta_jni zibun_i*jo syookai-sase-ta.  
    by self    introduce (Caus)  
    "(Lit.) Kunio_i made Kenta introduce self_i."  

In all the above causative sentences, the zibun-form only refers to the subject of the matrix sentence. Akatuka attribute the ungrammatical reading (i.e. the one indicated by the index j) to the violation of the Like-NP Constraint, for NP2 and NP3 in the following schematization of (89,a) are in peer relation.
However, we have observed in the previous section that \text{zibunzisin} 'oneself' can be in peer relation with its antecedent. Hence, (91) is ambiguous where the \text{zibun-} form in (89) has been replaced by \text{zibunzisin} 'oneself'.

(91) a. \text{Taroo}_i\text{wa Ziroo}_j\text{ni zibunzisin}_ij\text{jo nagur-sase-ta.}  
\hspace{.5cm} by oneself hit (Caus)

"(Lit.) Taroo\textsubscript{i} made Ziroo\textsubscript{j} hit self\textsubscript{ij}."

b. \text{Kunio}_i\text{wa Kenta}_j\text{ni zibunzisin}_ij\text{jo kak-sase-ta.}  
\hspace{.5cm} by oneself paint (Caus)

"(Lit.) Kunio\textsubscript{i} made Kenta\textsubscript{j} paint self\textsubscript{ij}."

c. \text{Kunio}_i\text{wa Kenta}_j\text{ni zibunzisin}_ij\text{jo syookai-sase-ta.}  
\hspace{.5cm} by oneself introduce (Caus)

"(Lit.) Kunio\textsubscript{i} made Kenta\textsubscript{j} introduce self\textsubscript{ij}."
In the above, unless the *zibun*-form is treated as a personal pronoun on the one hand and the *zibunzisin*-form, on the other hand as a reflexive, the ambiguity of (91) cannot be accounted for systematically. Notice that we could account for the ambiguity in question quite systematically in the following way, using the underlying structure of (91.b) in terms of schematization (i.e. 92).

(92)

The derivation of the sentence indicated by the index $i$ in (91.b) would be:

(i) Reflexivization -- NP$_3$ gets reflexivized under the coreferential identity with NP$_2$, being changed into *zibunzisin* 'oneself' in the S$_2$ cycle.
(ii) Causativization — *kak 'paint' is combined with the causative *sase, forming *kak-*sase. Also, because of this, the $S_2$ node is to be deleted.

(iii) As a result of (ii), the sentence with the index 1 is derived having NP$_2$ and NP$_3$ as its constituents.

When NP$_1$ and NP$_2$ are coreferential, the sentence indicated by 1 results in the following way:

(i) Nothing happens in the $S_2$ cycle.

(ii) Causativization — Same as above.

(iii) Pronominalization$^{11}$— NP$_3$, now a constituent of the matrix sentence $S_1$, gets pronominalized. As a result, (89.b) is derived.

(iv) *-zisin-attachment — If the bound morpheme *-zisin is attached to the result of (iii), the sentence with the index 1 in (91.b) results.

Notice that the ambiguity of (91.b) is just a fortuitous matter, for the bound morpheme *-zisin could be attached to NP$_1$ or NP$_2$, resulting in the following grammatical (93.a) or (93.b) respectively.
Therefore, it is of importance to notice that the sentence with the reflexive pronoun is only the one indicated by the index \textsubscript{j} in (91), while the reading with \textsubscript{i} is acceptable only when it conveys the contrastive meaning. In other words, reflexivization in Japanese is a phenomenon observable only in the simplex sentence. Moreover, this would also explain why the reading with the index \textsubscript{j} in (91) is the dominant one.

What we have claimed above is not only peculiar to the causative sentences. Consider the following examples:

(94) a. \textit{Kunio\textsubscript{i} wa zibun\textsubscript{i\textsubscript{j}} o tataita Kenta\textsubscript{j} o niranda.}
    \textit{(Lit.) Kunio\textsubscript{i} stared at Kenta who hit self\textsubscript{j}.} \\
    a. \textit{Kunio\textsubscript{i} wa zibun\textsubscript{i\textsubscript{j}} zisin\textsubscript{i\textsubscript{j}} o tataita Kenta\textsubscript{j} o niranda.} 
    \textit{(Lit.) Kunio\textsubscript{i} stared at Kenta who hit self\textsubscript{i\textsubscript{j}}.}
(94) b. Kunio wa zibun jo kaita Kenta jo tataeta.
    self      painted     admired
    "(Lit.) Kunio admired Kenta who painted self."

b'. Kunio wa zibunzisn jo kaita Kenta o tataeta.
    oneself painted     admired
    "(Lit.) Kunio admired Kenta who painted oneself."

c. Kunio wa zibun* jo syookaisita Kenta ni
    self       introduced     to
    tikazuita.
    approached
    "(Lit.) Kunio approached Kenta who
    introduced self."

c'. Kunio wa zibunzisin jo syookaisita Kenta ni
    oneself introduced     to
    tikazuita.
    approached
    "(Lit.) Kunio approached Kenta who
    introduced self."
In the above diagram, NP₂ is the relative clause with NP₃ being its head noun. When NP₅ is coreferential with NP₄, reflexivization takes place in the S₂ cycle, yielding the a', b' and c'-sentences with the index i, which is the dominant reading of them. Otherwise, with NP₁ being its coreferent, NP₅ gets pronominalized, resulting in the a, b and c-sentences. The -zisin-attachment is responsible for the a', b' and c'-sentences with the index i, which are one case of the contrastive versions of the a, b and c-sentences. Hence, the ambiguity is once again coincident.

The fourth reason to justify our treatment of the zibun-form as a personal pronoun comes from the following passive sentences.
Compare (96) with (1).

(1) a. Kunio ga Kenta no uti de korosita.
   "(Lit.) Kunio killed Kenta at self's house."

   b. Kenta wa Kunio ni zibun no uti de
      kill (Pass)
      "(Lit.) Kenta was killed by Kunio at self's house.

(96) a. Kunio wa Kenta ni zibun syookais-
      by self introduce
      rare-ta.
      (Pass)
      "(Lit.) Kunio had Kenta introduce self."

   b. Kunio wa Kenta ni zibunzisin syookais-
      by oneself introduce
      rare-ta.
      (Pass)
      "(Lit.) Kunio had Kenta introduce self."

Recall that (1.b) was crucial to propose the subject-antecedent condition in the previous chapter (c.f. 1.1.1), since in (1.a) and its passive (1.b) zibun 'self' only refers
to the subject noun phrase. Hence, the application of passivization must precede reflexivization so long as we treat the zibun-form as the reflexive pronoun. However, it does not seem to be the case with (96.b), since zibunzisin 'oneself' refers back to both Kunio and Kenta.

To account for this, we assume the following derivational processes, using the underlying structure of (96).

(97)

The sentence with the index \( j \) in (96.b) would be derived in the following way:

1. Reflexivization -- \( NP_4 \) is to be changed into zibunzisin 'oneself', being coreferential with \( NP_2 \) prior to passivization.
(ii) Passivization -- NP3 is to be deleted by Equi-NP deletion. Also, the verb syookais 'introduce' is combined with the passive marker rare. Now, NP2 and NP4 are the constituents of the passive sentence $S_1$, the $S_2$ node having been eliminated.

(iii) The result of (ii) is the sentence with the index $i$ in (96.b).

The sentence with the index $i$ in (96.b) would be derived in this way:

(i) Passivization -- Same as above (ii).

(ii) Pronominalization -- NP4 being changed into the zibun-form under the referential identity with NP1, (96.a) results.

(iii) -zisin-attachment -- -zisin being attached to NP4, the sentence with index $i$ in (96.b) results.

Again, the ambiguity of (96.b) is just fortuitous, because the bound morpheme -zisin could be attached to NP1 or NP2 rather than NP4, yielding the grammatical sentences, (98.a)
or (98.b) respectively.

(98) a. Kunio\textsubscript{i}-zisin wa Kenta ni zibun\textsubscript{o} syookais-by self introduce rare-ta.

(Pass)

"(Lit.) Kunio\textsubscript{i}, himself had Kenta introduce self\textsubscript{i}:"

b. Kunio\textsubscript{i} wa Kenta-zisin ni zibun\textsubscript{o} syookais-by self introduce rare-ta.

(Pass)

"(Lit.) Kunio\textsubscript{i}, had Kenta himself introduce self\textsubscript{i}:"

Thus, postulating zibun 'self' as a personal pronoun on the one hand, and zibunzisin 'oneself' as the reflexive on the other, we are able to account for the ambiguity very plausibly.

Therefore, as a conclusion to this section we may say that what has been treated as Japanese reflexivization (by Akatuka, Oyakawa etc.) through the zibun-form really consists of two different syntactic phenomena: reflexivization in the simplex sentence and pronominalization in the complex sentence.
CONCLUSION

Through the examination of Akatuka's Like-NP Constraint and related two transformational rules, we have encountered the question of the adequate form of the reflexive pronoun in Japanese.

In order to give a plausible account of the problem, we have postulated the zibun-form as a personal pronoun on the one hand, and the zibunzisin-form as the genuine reflexive on the other, with the following results:

(i) sorezitai 'itself', the non-human counter-part of zibunzisin 'oneself', can be treated as the reflexive pronoun.

(ii) What has been classified as reflexivization in Japanese so far really consists of two different syntactic processes: reflexivization and pronominalization.

As a conclusion to this chapter, we may present what the foregoing discussion has resulted in as our revised proposal (II) in the following:
The Revised Proposal (II)

**Japanese Reflexivization**

(i) In a given simplex sentence that dominates the two coreferential noun phrases, NPa and NPR, change the latter into zibunzisin 'one self' (sorezitai 'itself') if NPa is the left-most human (non-human) noun phrase which also commands NPR.

(ii) When NPa is in a higher sentence, change NPa into zibun 'self'. (Pronominalization)
NOTES FOR CHAPTER II

1. The deep structure of these sentences is also unacceptable as shown below:

   i. *Kunio wa Kunio o tataita.
      "Kunio hit Kunio."
   ii. *Kunio wa Kunio ni kuruma o katta.
       "Kunio bought Kunio a car."

   In Chapter III, this point is to be discussed in detail.

2. By the notion "maximum NP", Akatuka seems to imply that an NP which is not dominated by another NP node is a "maximum NP". Therefore, the head noun of the relative construction is not a "maximum NP", and neither is the left-branching NP.


4. Ibid., p.34.

5. It is well-known that there are two types of passive sentences in Japanese: the plain passive derived by the subject-object inversion plus passive marker rare attachment and the so-called affective passive. What we are concerned with here is the characteristics of the latter type of passive in general, not peculiar to the verbs of "physical contact."

6. At present, the condition under which the personal pronouns are to be interchanged with zibun 'self' is not clear.

7. In Japanese, personal pronouns which refer to the third person are missing. Kare 'he' in (81) through (84) and kanozyo 'she' are sometimes classified as such personal pronouns. However, this classification is highly questionable since the gender is quite foreign in Japanese.

8. As for the discussion in detail about the speech level, see Akiko Shinoda (1973), for example.

9. In these examples, ano hito 'that person' and aitu 'that person' are not personal pronouns. Nevertheless, our main claim would remain in effect.

10. This usage of zibun 'self' is more frequently observable in the Kansai dialect which is spoken in Osaka area.
11. The term 'pronominalization' in the present thesis only refers to the derivation of zibun 'self' in order to show that zibun 'self' and zibunzisin 'oneself' are derived in a different manner. As for the pronominalization in Japanese, we leave its general formulation for future study.

12. Notice that this pronominalization is in the above-mentioned sense (c.f. note 10). Also, (ii) in the revised proposal (II) is not the case with sore 'it/that' because it is not a personal pronoun. See the examples below:

   i. Rekisi wa sorezita, o kurikaesu.
      "History itself repeats itself."
   
   ii. Senso, wa rekisiga sorezita, o kurikaesu
       koto o simesu.
       "(Lit.) The war shows that history repeats itself."
   
   iii. *Senso, wa rekisiga sore, o kurikaesu koto o
       simesu.
       "(Lit.) The war shows that history repeats it."

Although iii above might be acceptable as a direct translation from a foreign language, it is otherwise unacceptable. Hence, sore 'it/that' must be treated differently from zibun 'self'.
CHAPTER III

SOME RESIDUAL PROBLEMS

AND

THE INTERPRETIVE THEORY

3 INTRODUCTION

In the previous chapter, we claimed that the genuine reflexive in Japanese is not the zibun-form but the zibunzisin-form, and that zibun 'self' and zibunzisin 'oneself' are the respective results from pronominalization and reflexivization.

We must admit, however, that with this approach there still is a difficulty in determining the adequate deep structure to which the transformational rules apply.

Consider the following, for example.

(100) a. Kunio wa zibunzisin o tataita.
   oneself    hit

   "Kunio hit himself."

   a'. *Kunio wa Kunio o tataita.
       hit

   "*Kunio hit Kunio."
In the present chapter, we shall look into a possible account for this in Jackendoff's proposal known as the Interpretive Theory. As a result, it will be shown that the approach in the framework of Jackendoff's proposal can shed light on the following two problems as well, which the standard transformational approach seems unable to account for.

(i) The occurrence of zibun 'self' with the particle de 'by/with'

(ii) Non-coreferential zibun 'self' and zibunzisin 'oneself'

3.1 The Interpretive Theory by Jackendoff

In order that the coreferentiality can be interpreted in the semantic component, Jackendoff (1972:112) formulates English reflexivization in the following way:

(100) b. Kunio_i wa Kenta ni zibun_i o tatak-saseta.
    by self    hit (Caus)

    "(Lit.) Kunio_i made Kenta hit self_i."

b'. *Kunio wa Kenta ni Kunio o tatak-saseta.
    by hit (Caus)

    "#Kunio made Kenta hit Kunio,"

In order that the coreferentiality can be interpreted in the semantic component, Jackendoff (1972:112) formulates English reflexivization in the following way:
(101) Reflexivization in English

\[ \text{NP}_1 \xrightarrow{\text{coref}} [\text{NP}_2 \xrightarrow{\text{ref}}] \text{ in the environment...} \]

OBLIGATORY

According to Jackendoff, this rule says that:

(102) "...in the proper contexts for reflexivization \text{NP}_2 \text{ is coreferential with } \text{NP}_1 \text{ if and only if it is reflexive.}"

It is important to notice here, that, the revised proposal (II) in the previous chapter being preserved,\(^1\) the rule (101) can remain in effect even in Japanese reflexivization; for example, the reflexive \text{zibunzisin} 'oneself' in (100.a) is to be interpreted as coreferential with \text{Kunio}, the left-most human noun phrase which commands the reflexive, by the rule (101). As the reflexive \text{zibunzisin} 'oneself' is presented in the deep structure in the Interpretive Theory, such a ungrammatical deep structure as (100.a') can be disregarded.

Likewise, \text{zibun} 'self' in (100.b) can be easily interpreted as coreferential with its eligible antecedent \text{Kunio} by the rule something like follows:
Pronominalization

\[ \text{NP}_1 \alpha\text{coref} \left[ \begin{array}{c} \text{NP}_2 \alpha\text{pro} \\ \end{array} \right] \text{ in the environment...} \]

OBLIGATORY

In (100.b) both Kunio and Kenta, the left-most human noun phrase in the matrix sentence and in the embedded sentence respectively, will qualify as \( \text{NP}_1 \) and \( \text{zibun} \) 'self' as \( \text{NP}_2 \).

As indicated in (100.b) the \( \text{zibun} \)-form can be only coreferential with Kunio, the matrix subject. Therefore, we must maintain all the conditions mentioned previously in the revised proposal (II) as "the environment" in order for the rule to result in the correct interpretation.

Using the revised proposal (II) as "the environment", reflexivization and pronominalization in Japanese may be formulated in the following way in terms of the Interpretive Theory:

(a) Reflexivization

\[ \text{NP}_1 \alpha\text{coref} \left[ \begin{array}{c} \text{NP}_2 \alpha\text{ref} \\ \end{array} \right] \text{ if} \]

\( \left\{ \begin{array}{l} (i) \text{NP}_1 \text{ is the left-most noun phrase commanding } \text{NP}_2 \\
\text{and} \\
(ii) \text{both } \text{NP}_1 \text{ and } \text{NP}_2 \text{ are in a given simplex sentence} \end{array} \right\} \)
(104) b. Pronominalization

\[ \text{NP}_1 \alpha \text{coref } \left[ \text{NP}_2 \alpha \text{pro} \right] \text{ if } \]

\[
\begin{cases} 
(i) \text{ same as above} \\
\text{and} \\
(ii) \text{ NP}_1 \text{ is in a higher sentence}
\end{cases}
\]

This formulation not only avoids such ungrammatical deep structures as in (100) but also accounts for the coreferentiality observable in the examples below:

(105) a. Kunio_\text{wa} zibun_\text{de} syukudai o sita.
    self by homework did

"Kunio did the homework by himself."

b. Zibun_\text{de} syukudai o sita koto ga Kunio_\text{ni}
    self by homework did that to
    zisin o ataeta.
    confidence gave

"(Lit.) That (he) did the homework by himself gave Kunio confidence."

The zibun-form in (105) is a perfect instance of our analysis in the preceding chapters since the pronoun zibun 'self' is coreferential with the left-most human noun phrase which commands zibun 'self' as the index shows in (105). However,
the standard transformational rule by which one of the two coreferential noun phrases is to be changed into the zibun-form cannot be accountable for the occurrence of zibun 'self' in the above examples because the possible deep structures for the sentences in question are entirely unacceptable as shown below:

(106) a. *Kunio wa Kunio de syukudai o sita.
   by homework did

   "*Kunio did the homework by Kunio."

   b. *Kunio de syukudai o sita koto ga Kunio ni
      by homework did that to

      "*(Lit.) That (he) did the homework by Kunio gave Kunio confidence."

It seems to be because of this difficulty that the pronoun zibun 'self' with the particle de 'by/with' has been rarely treated in the current linguistic works in terms of the standard transformational approach. 3

Contrary to this, the interpretive approach does not have to assume the ungrammatical deep structure (106). According to the rule (104), Kunio in (105) is to be qualified as NP1 and zibun 'self' as NP2 in (104).
Next, we shall treat more complicated examples.

(107) a. Kunio_i wa zibun_i de zibun_i no syukudai o sita.
    self by self 's homework did

    "(Lit.) Kunio_i did self_i 's homework by self_i ."

b. Zibun_i de zibun_i no syukudai o sita koto ga
    self by self 's homework did that
    Kunio_i ni zisin o ataeta.
    to confidence gave

    "(Lit.) That (he) did self_i 's homework by
    self_i gave Kunio_i confidence."

(108.a) and (108.b) below are the schematical representation
of (107.a) and (107.b) respectively.
In these schematizations, pronominalization between NP₁ and NP₃ is accountable by the standard transformational approach, in which NP₃ is to be changed into zibun 'self'. But, pronominalization between NP₁ and NP₂ is to remain unaccounted for by the same approach because of the ungrammatical deep structures.

The interpretive approach, once again, shows no difficulty in explaining the antecedent-reflexive relation in (107). In both (108.a) and (108.b), the rule (104.b) gives the two interpretations as follows:

(109) a. NP₁(Kunio) +coref NP₂(zibun 'self')

b. NP₁(Kunio) +coref NP₃(zibun 'self')

The interpretive approach thus accounts for such complicated instances as (107), whereas the standard transformational
approach seems unable to account for them.

Jackendoff (1972:112) also imposes the following condition on English reflexivization.

(110) The Consistency Condition

If the table of coreference marks two NPs coreferential, these NPs must in fact be able to describe the same individual.

Jackendoff uses (111) below to show how the condition works.

(111) a. *The boy\textsubscript{i} shot herself\textsubscript{i}.

b. *Finkelstein\textsubscript{i} shot yourself\textsubscript{i}.

The reflexive rule marks the two noun phrases in (111) co-referential as indicated by the index \textsubscript{i}. This interpretation, however, is to be rejected because of the Consistency Condition whereby the male individual in (111.a) cannot describe the same individual as the female 'herself'. The third person 'Finkelstein' and the second person individual 'yourself' cannot be the same in (111.b). In other words, the condition rejects (111.a) because of its gender disagreement, whereas (111.b) because of its person disagree-
Notice that this condition must be adopted into Japanese reflexivization in order to block such ungrammatical sentences as follows:

(112)  a. *Rekisi$_1$wa zibunzisin$_1$o kurikaesu.
    history oneself repeat
    "*History repeats oneself."

  b. *Kunio$_1$wa sorezitai$_1$o tataita.
    itself hit
    "*Kunio hit itself."

It is obvious that the reflexive rule (104.a) cannot block the ungrammaticality of (112). The reflexive rule gives the following interpretations.

(113)  a. (Rekisi'history') +coref (zibunzisin'oneself')

  b. (Kunio) +coref (sorezitai'itself')

Then, it is the Consistency Condition that discards (113) above; that is, the non-human noun phrase rekisi 'history' cannot describe the same individual as the human noun phrase zibunzisin 'oneself' in (113.a). Likewise, Kunio and sorezitai 'itself' in (113.b) cannot be the same because of their human-
Thus, Japanese reflexivization too requires the Consistency Condition.

To sum up, we may say that the Interpretive Theory is equipped with more descriptive adequacy than the standard transformational approach on the basis of the following two points:

(i) Without assuming ungrammatical deep structures, the interpretive approach can account for such an instance as (100) plausibly.

(ii) Zibun 'self' with the particle de 'by/with' can be treated plausibly only when the zibun -form is assumed to be present in the deep structure.

3.2 Non-coreferential zibun 'self' and zibunzisin 'oneself'

First, let us observe (114) below.

(114) a. Nihon-zin wa zibunzisin o kantan ni koros-eru.

"Japanese oneself easily kill can

"Japanese can easily kill one's own self."
(114) b. Ano nihon-zin\textsubscript{i} wa zibunzisin\textsubscript{i} o kantan ni
that Japanese oneself easily
koros-eru.
kill can

"(Lit.) That Japanese can easily kill self\textsubscript{i}."  

Although it is hard to see from its English translation, (114.a) is acceptable only when zibunzisin 'oneself' is not coreferential with nihon-zin 'Japanese'; namely, (114.a) does not mean that 'Japanese can easily kill Japanese' but something to the effect that 'Japanese can easily commit suicide'.

More examples of this type follow:

(115) a. Ningen\textsubscript{i} wa zibunzisin\textsubscript{i} o aisu.
men oneself love

"Men love one's own self."

b. Ano ningen\textsubscript{i} wa zibunzisin\textsubscript{i} o aisu.
that man oneself love

"(Lit.) That man(person)\textsubscript{i} loves self\textsubscript{i}."

(116) a. Kodomo\textsubscript{i} wa zibunzisin\textsubscript{i} o kontorooru deki-nai.
children oneself control can not

"Children cannot control one's own self."

b. Ano kodomo\textsubscript{i} wa zibunzisin\textsubscript{i} o kontorooru deki-nai.
that child oneself control can not

"(Lit.) That child\textsubscript{i} cannot control self\textsubscript{i}."
In accounting for the zibunzisin-form in the a-sentences by the standard transformational approach, we shall encounter the two problems. For one thing, the possible underlying structures are ungrammatical as discussed in section 3 of this chapter and, for another, even if we admit the ungrammatical underlying structures, zibunzisin 'oneself' in the a-sentences above cannot be derived through the transformational reflexive rule for there are not two coreferential noun phrases for reflexivization to apply to. (Recall that (114.a), for example, does not mean 'Japanese can easily kill Japanese.\')

Now, compare the b-sentences with the a-sentences in (114) through (116). The coreferentiality observable in the b-sentences is acceptable as shown by the index. Why is it that zibunzisin 'oneself' behaves differently in each example?

In order to explain this phenomenon, we are proposing that a feature [+specific] is needed in Japanese reflexivization. In (114) through (116), what differentiates the a-sentences from the b-sentences is the demonstrative ano 'that' attached to the left-most human noun phrases of the former sentences. For example, the left-most human noun
phrase is *nihon-zin* 'Japanese' in general in (114.a), while the left-most human noun phrase in (114.b) is specific *ano nihon-zin* 'that Japanese' and, as a result, only the latter sentence shows the acceptable coreferentiality.

Notice that the parallel phenomenon can be observed in Japanese pronominalization: the *zibun*-form.

(117) a. Nihon-zin*$_{wa}$* *{zibun*$_{i}$* no koto o hanas-nai.}
Japanese *{nihon-zin*$_{nihon-zin}$ 's affair talk not *nihon-zin*$_{Japanese}$

"(Lit.) Japanese$_{i}$ do not talk one's$_{i}$own affair."

b. Sono nihon-zin*$_{wa}$* *{zibun*$_{i}$* no koto o}
the Japanese *{self*$_{nihon-zin}$ 's affair *nihon-zin*$_{sono nihon-zin}$

hanas-nai.
talk not

"(Lit.) The Japanese$_{i}$ does not talk about self$_{i}$'s affair."

(118) a. Ningen*$_{wa}$* *{zibun*$_{i}$* ga kiraina koto o su-nai.}
men *{nihen*$_{i}$* hate thing do not *nihen*$_{men}$

"(Lit.) Men do not do what one hates."
(118) b. Sono ningeni wa zibun ga kiraina sono ningen koto o su-nai.

"(Lit.) The man(person) does not do what self hates."

(119) a. Kodomoi wa zibun no kanzyoo ga kontorooru kodomo deki-nai.

"(Lit.) Children cannot control one's own temper."

b. Sono kodomoi wa zibun no kanzyoo ga sono kodomo kontorooru deki-nai.

"(Lit.) The child cannot control self's temper."

In the above examples, if the eligible antecedent is a specific noun phrase, the zibun-form is coreferential (i.e. b-sentences), but otherwise zibun 'self' is non-coreferential
(i.e., a-sentences).

Therefore, we propose such a condition as follows:

(120) **The Specific Antecedent Requirement**

For the *zibun*(*zisin*)-form to be coreferential, there must exist a noun phrase which describes a specific individual in a given sentence.

Consider the interpretation procedure of (114) and (117), for example, to see how the condition (120) validates itself.

i) By the rules (104), the interpretations below are given to (114) and (117).

- (114.a): *(nihon-zin)* (Japanese) +coref *(zibun/zisin)* (oneself)
- (114.b): *(ano nihon-zin)* (that Japanese) +coref *(zibun/zisin)* (oneself)
- (117.a): *(nihon-zin)* (Japanese) +coref *(zibun)* (self)
- (117.b): *(sono nihon-zin)* (the Japanese) +coref *(zibun)* (self)

ii) The condition (120) rules out (114.a) and (117.a).

- (114.a)*: *(nihon-zin)* (Japanese) +coref *(zibun/zisin)* (oneself)
- (117.a)*: *(nihon-zin)* (Japanese) +coref *(zibun)* (self)
iii) As a result, (114.b) and (117.b) are to be interpreted as coreferential.

This procedure thus tells us correctly that the coreferentiality of the a-sentences in (114) through (119) is unacceptable. But, the acceptable reading of the sentences (i.e. non-coreferential reading) is still left unaccounted for. More precisely, (114.a) and (117.a) can be interpreted only on the basis of -coref and zibun(zisin) 'one)self' must be interpreted as a noun, not a pronoun of any kind. In short, the following should hold:

\[
\begin{align*}
(121) & \\
& \text{a. (114.a)}: \text{(nihon-zin)} & \text{Japanese} & \text{-coref} & \text{(zibun)zisin} & \text{oneself} \\
& \text{b. (117.a)}: \text{(nihon-zin)} & \text{Japanese} & \text{-coref} & \text{zibun} & \text{self}
\end{align*}
\]

Therefore, we must incorporate the condition (120) into Japanese reflexivization/pronominalization (104) as a third condition so that such an interpretation as (121) can be possible.
(122) a. Reflexivization

NP₁ αcoref [NP₂ αref] if

(i) Same as (104.a)
and
(ii) Same as (104.a)
and
(iii) NP₁ must be a noun phrase which describes a specific individual.

b. Pronominalization

NP₁ αcoref [NP₂ αpro] if

(i) Same as (104.b)
and
(ii) Same as (104.b)
and
(iii) Same as above

It is because of the violation of the third condition above that the interpretation (121) results from the rules (122).

The following schematization represents the foregoing.

(123) Reflexivization
Pronominalization

NP₁ +coref NP₂

The Consistency Condition

e.g. (100), (105), (107), *(111)

NP₁ -coref NP₂

e.g. (114.a), (115.a)
(116.a), (117.a)
(118.a), (119.a)

etc.
Next, let us observe the following examples which would further support the incorporation of (120) into (104) as a third condition.

(124) a.  
\[
\text{Gakusee}_i \quad \text{wa zibunzisin}^{*i}_0 \quad \text{kadaihyooka suru.}
\]
\[
\text{student} \quad \text{oneself} \quad \text{over-estimate do}
\]

"(Lit.) Students over-estimate one’s own self."

b.  
\[
\text{Gakusee}_i \quad \text{wa zibun}^{*i}_a \quad \text{ga benkyoo siteir-}
\]
\[
\text{student} \quad \text{self study not-doing}
\]
\[
\text{nai koto ni kizuk-nai.}
\]
\[
\text{that realize not}
\]

"(Lit.) Students do not realize that one is not studying."

(124.a) and (124.b) are different from (124.a') and (124.b') in that the latter have the plural marker -tati attached to the subject noun phrase. As shown by the index i, zibunzisin 'oneself' and zibun 'self' in (124) are not coreferential with the left-most noun phrase gakusee(-tati) 'student(s)', yet both examples in (124) are grammatical.

It might be claimed that the Consistency Condition is responsible for the non-coreferentiality in (124.a') and
(124.b') because gakuseetati 'students' with the plural marker cannot describe the same individual as the zibun(gisin)-form. However, we must recall that the Consistency Condition is able to disqualify gakusee-tati 'students' as NP₁ in (104), but is unable to give the non-coreferential interpretation for (124.a') and (124.b'). In other words, the combination of (104) and the Consistency Condition cannot derive the interpretation of (125) below.

\[
\begin{align*}
(125) & \quad a. (124.a') : \text{gakusee-tati} \quad \text{-coref} \quad \text{zibun(zisin)} \quad \text{oneself} \\
& \quad b. (124.b') : \text{gakusee-tati} \quad \text{-coref} \quad \text{zibun} \quad \text{self}
\end{align*}
\]

Contrary to this, the rules (122) with (120) being their third condition can correctly account for the non-coreferentiality of (124). According to (122), gakusee-tati 'students' does not qualify itself for NP₁ because it is not a "specific individual", so that (122) results in the interpretation of (125.a) and (125.b) for (124.a') and (124.b') respectively. (Notice that (124.a) and (124.b) are also given the non-coreferential interpretation for the same reason.)

The Interpretive Theory thus plausibly accounts for the
non-coreferentiality of the \textit{zibun} and \textit{zibunzisin}-form. Although they seem to be equipped with more explanatory adequacy than the standard transformational approach, the interpretive rules (122) need further elaboration since there are such sentences as follows:

(126) a. Kenta\textsubscript{1}dake wa zibunzisin\textsubscript{(i)} ni toohyoo sita. 

only oneself vote did

"(Lit.) Only Kenta\textsubscript{1} voted for self\textsubscript{(i)}."

b. Kenta\textsubscript{1}hitori ga zibun\textsubscript{(i)} no kuruma de kita.

alone self 's car by came

"(Lit.) Kenta\textsubscript{1} alone came by self\textsubscript{(i)}'s car."

These sentences are ambiguous; that is, both the coreferential and the non-coreferential readings are possible. For example, (126.a) could mean either that 'only Kenta voted for Kenta,' or that 'although others voted for someone else rather than themselves, only Kenta voted for one's own self'. In order to account for the ambiguity, the reflexive rule (122.a) must interpret (126.a) as both coreferential and non-coreferential, which is impossible in terms of the rule.

Since we are not able to solve this problem for the present, we are simply pointing out its existence and leave it for future study.
CONCLUSION

The intent of this chapter has been to treat some residual problems, a treatment which has been, in effect, a comparison of the standard transformational approach with the Interpretive Theory by Jackendoff. This comparison eventually suggests the precedence of Jackendoff's proposal over the standard transformational approach on the basis of the following points:

i) Due to the difficulty in determining the adequate deep structures, the standard transformational approach cannot derive such a sentence as (100) plausibly, whereas the interpretive approach can systematically give the correct interpretation for the antecedent-reflexive relation.

ii) For the same reason as above, the standard transformational approach fails to account for the zibun-form plus the particle de 'by/with', whereas the interpretive approach accounts for it in the same manner as for the other zibun occurrences.
iii) The interpretive rules (122) can be responsible for non-coreferential *zibun* 'self' and *zibunzisin* 'oneself' as observable in (114) through (119).
NOTES FOR CHAPTER III

1. With the information in the revised proposal (II), we shall propose reflexivization and pronominalization rules in terms of the Interpretive Theory, later as (104) and (122).

2. See note 11 in the previous chapter.

3. One might say that a plausible explanation is possible in the framework of the standard transformational approach, assuming the underlying structure of (105) as follows:
   i. Kunio wa Kunio no tikara de syukudai o sita.
      "(Lit.) Kunio did the homework with Kunio's ability."
   ii. Kunio no tikara de syukudai o sita koto ga
       "(Lit.) That (he) did the homework with Kunio's ability gave Kunio the confidence."

   The application of pronominalization results in:
   iii. a. Kunio1 wa zibun1 no tikara de syukudai o sita.
        "(Lit.) Kunio1 did the homework with self1's ability."
        b. Zibun1 no tikara de syukudai o sita koto ga
           "(Lit.) That (he) did the homework with self1's ability gave Kunio1 the confidence."

   Every native speaker of Japanese may accept iii as a paraphrase of (105). Therefore, what is needed to yield (105) from iii seems to be an optional transformational rule something like tikara-deletion which deletes tikara "ability" in iii.
   However, we must say that this treatment is very ad hoc for the two reasons below:
   First, the rule deletes the lexical item tikara 'ability' rather arbitrarily. Second, and more important, iii above is
not the only paraphrase of (105). The sentences in iv, for example, could be also the paraphrase of (105.a).

iv. Kunio, wa zibun, no self’s idea by homework did nooryoku faculty etc.

"(Lit.) Kunio did the homework with self’s idea/faculty etc."

Thus, in order to yield (105.a) from both iii and iv, we must increase such a rule as tikara-deletion up to as many as three (or presumably more). Hence, this approach cannot be far from being ad hoc.

4. The rule (104,b) actually gives a third interpretation:

\[ \text{NP}_2(zibun’self’) -\text{coref} \text{ NP}_3(zibun’self’) \]

Notice that in (108.a) \( \text{NP}_2 \) is not the left-most noun phrase and also that in (108,b) \( \text{NP}_2 \) and \( \text{NP}_3 \) are in the same simplex sentence.
CHAPTER IV

CONCLUSION

In Chapter I and Chapter II, we have examined Oyakawa's and Akatuka's hypothetical treatments of Japanese reflexivization, resulting in a revised proposal.

The revised proposal virtually suggests that:

1) Japanese reflexivization is a phenomenon in a simplex sentence with the zibunzisin-form being the genuine reflexive, otherwise—
   a. the violation of Akatuka's Like-NP Constraint (c.f. 48 and 74) cannot be accounted for plausibly
   b. the ambiguity of certain type of sentences (c.f. 96) is unaccountable
   c. the same behavior of the non-human reflexive sorezitai 'itself' as its human counter-part zibunzisin 'oneself' cannot be coped with (the humanness condition no longer holds in Japanese reflexivization).

2) as a result of the foregoing, the treatment of the
zibun-form must be different from that of the genuine reflexive pronouns.

3) the antecedent is the left-most noun phrase which commands zibun 'self' or zibunzisin(sorezitai) 'one-self(itself)', and, as a result—
   a. the subject-antecedent condition is one special instance of the above-mentioned condition
   b. the highest human NP condition is also a specific case where the antecedent is human and does not meet the subject-antecedent condition
   c. there are some sentences in which neither the highest human NP condition nor the subject-antecedent condition can give a plausible explanation (c.f. 32 and 34), whereas the revised proposal can.

4) the linear order (as well as the hierarchical order) of the two coreferential noun phrases is crucial in predetermining Forward and Backward operation of the rule, whereas Oyakawa discards the linearlity as irrelevant in Japanese.
In addition, comparing the standard transformational approach with Jackendoff's interpretive approach in the last chapter, we could clarify that:

5) in the Interpretive Theory, the ungrammatical deep structure can be avoided so that—
   a. such sentences as (74) and (75) are accountable with no difficulty
   b. the zibun-form with the particle de 'by/with'
      can be accounted for as an instance of pronominalization (c.f. 106, 107 and 108)

6) there exists the non-coreferential zibun(zisin)-form which requires the [⁺ specific] feature to be attached to the antecedent (c.f. 114 through 119)

7) there also exists the ambiguity for which a rule must give both the coreferential and the non-coreferential interpretations at the same time (c.f. 126). (At present, we are not able to account for this ambiguity, therefore, the existence of the problem is simply pointed out as warranting further investigation.)

8) as a result of the comparison, the interpretive ap-
proach is more advantageous as far as the foregoing points are concerned.

In order to conclude the present thesis, the revised proposal is recapitulated in terms of the diagram below:

```
commands
NPa ← and/or NPr
     \precedes

NPa [+specific] is coreferential with NPr

NPa and NPr are in the same simplex sentence

NPr → zibunzin oneself
     [human]
NPr → sorezitai itself
     [-human]
(Reflexivization)

NPa [-specific] is not coreferential with NPr

NPa is in a higher sentence

NPr → zibun self
(Pronominalization)
```


