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ZERO PRONOUNS IN JAPANESE: A PARAMETRIC APPROACH

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Hisako Takano

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ZERO PRONOUNS IN JAPANESE: A PARAMETRIC APPROACH

By

Hisako Takano

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ABSTRACT

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By

Hisako Takano

In this study, a new theory of pro proposed by Rizzi (1986) has been accommodated to zero pronouns in Japanese by hypothesizing that zero pronouns in Japanese are instances of pro which is formally licensed by either of N, V, Infl or Comp (case-assigners), and that the content of pro will be recovered by a language specific subprinciple of the universal principle "Avoid Pronoun" (Chomsky, 1981):

"Avoid pronoun referring to the established topic."

It is further argued that pro in Japanese can have four different interprepations in terms of referentiality and argumenthood:

[+referential +argumental] pro (implicit arguments)
[-referential +argumental] pro (null expletive)
[+referential -argumental] pro (implicit genitive pronouns zero topic)
[-referential -argumental] pro (null expletive=non-argument).

Finally, a new parametric schema for the whole pronominal class in the lexicon of UG is proposed as a consequence of the interaction between the universal principle "Avoid Pronoun" and a lexical class, [+pronominal -anaphoric] NP. In the proposed schema, pro drop parameter can be reduced to a question: what kind of pro could be allowed in one language and not be allowed in another.

To my parents

Table of Contents

Chapter Four: Pronominal categories and a parametric approach

Chapter One
Introduction

1.1 Background of the study

1.1.1 The theory of parameters

The most interesting innovation in the Government and Binding theory (henceforth GB, Chomsky, 1981) is the theory of parameters which was introduced for the purpose of accounting for the existing variety of languages. According to Chomsky, the universal grammar (henceforth UG) which a child is born with consists of a set of universal principles (henceforth UPs) and a schema of parameters. The value of each of those parameters is to be successfully fixed by a child through his linguistic experience. By fixing the parameters one way or another, a child will construct a "core grammar" of a particular language on the basis of UG which is the pre-linguistic initial state of the language faculty. So a unique set of the values of the parameters and their interaction with the innate universal principles will define a "core grammar" of a particular language. Suppose UG has five parameters each of which has five values to be chosen, then UG can possibly generate three thousand one hundred and twenty-five languages. This seems rich enough to account for the existing variety of natural languages.

This new theoretical construct raises many questions. For example, what should be an appropriate target for the parameterization? In other words, what are the values of the

parameters associated with: a lexical item (Wexler & Manzini, 1987, the lexical parameterization hypothesis)? a subconponent of UG like the categorial component (Bourchard, 1983, configurational/non-configurational)? or the whole grammar (Huang, 1984, discourse-oriented/sentence-oriented)? Another question would be how the parameterized parts of UG interact with the UPs. A more technical question would be how a child fixes the values of the language to which he is exposed. Without considering either of these questions, a parametric theory would not be sufficient. A proper parametric theory should provide us at least with the answers to these questions. In other words, it should identify the relevant parameters each of which distinguishes one language from another; fix what is parameterized in terms of what; explain how the UPs interact or do not interact with the parameter; and finally provide an account of the acquisition process.

1.1.2 Pro drop parameter

The Pro drop parameter was the first parameter introduced by Chomsky (1981). The phenomenon called 'pro drop', in which an overt subject is missing in a tensed sentence, was first discussed by Perlmutter (1971). Recently, more and more attention has been paid to this phenomenon not only in terms of parameters but also in terms of the empty categories (henceforth ECs), which have been vigorously investigated in the recent development of linguistic theory. Linguists have been trying to identify the gap

in terms of ECs and also to induce a parametric schema which can distinguish one language from another. However, it seems that there has not been yet proposed a proper parametric theory with respect to this phenomenon.

1.1.2.1 The standard theory and a problem

In the standard account of 'pro drop' (Taraldsen 1978, Chomsky 1982), a rich agreement between the subject and the verb plays a crucial role. The EC in subject position is locally determined by AGR. In other words, a rich enough agreement licenses the EC and the content of the EC is recovered by the agreement at the same time. This type of account can not be applied to a language which does not have any agreement system. A problem arises from the fact that many languages which do not have an agreement system do have the same kind of phenomenon. Japanese is one of those languages. There is a phenomenon called 'zero ⁄pronoun' in which a personal pronoun takes a phonetically zero form in a tensed sentence. What is more problematic is that Japanese has more freedom to use zero pronouns than the other languages which have agreement systems. It also allows a zero object as well as a zero subject. It seems that we need to revise the standard theory to account for these phenomena in a unified way.

1.1.2.2 The proposed solutions

As far as I know, there have been three different approaches

to solving this problem within the GB framework; Bouchard (1983), Huang (1984), and Rizzi (1986).

Bouchard has attributed this problem to the configurationality difference. He assumed that Italian is a configurational language whereas Japanese is a non-configurational language. He has claimed that 'pro drop' in Romance languages like Italian can be accounted for by the standard theory explained in the previous section, whereas the 'zero pronoun' in Japanese can be accounted for by some other properties which are only allowed in a non-configurational language like Japanese.[1] Aside from the question whether or not his assumption is correct, his approach is certainly less attractive in terms of the pro drop parameter. because it loses an independent status as a parameter which should be able to be fixed by any language before that language becomes that particular language. In his theory the real parameter is not the pro drop parameter, but the configurationality parameter. After having divided the languages into two groupes, he explains ECs of one group of languages (Romance languages) by the standard theory of pro drop based on the agreement system, and he explaines ECs of the other group of languages (including Japanese) by a completely different theory.

Huang's approach is basically the same as Bouchard's, although he never assumes that Japanese is a non-configurational language. He keeps the standard account for the Italian-type

languages but for Chinese-type languages (including Japanese) he identified the ECs as a different kind of EC, a variable bound by a zero topic (an empty operator). A problem in his account was that what licenses this zero topic is not clear. Aside from this problem, his parametric approach is also less attractive in terms of the pro drop parameter. He broke this down into two distinct parameters, a pro-drop parameter and a zero-topic parameter. Furthermore he proposed another general parameter which distinguishes a discourse-oriented language from a sentence-oriented language. Only discourse-oriented languages which are also zero-topic languages can have a zero-topic binding a variable. In this approach, there can not be a single pro drop parameter.

Although Rizzi did not directly discuss the zero pronoun phenomenon in Chinese-type languages, he provided a basic solution to this problem in his theory of pro. He showed that a pro can be licensed in the object position in Italian without agreement and also that the content of a pro can be recovered in a way other than agreement. According to his theory, pro is licensed by a formal licensing principle without reference to agreement. And once it is licensed, it is used as far as the language has conventions to recover the content. In this approach we can treat all languages regardless of whether or not the language has an agreement system.

1.2 Goal of the study

In this study I will attempt to accommodate Rizzi's theory of pro to the Japanese zero pronoun phenomenon. By doing so, I will relate the zero pronoun phenomena in Japanese to the pro drop phenomena in Italian and other languages to provide a unified explanation. I will also answer the question, why Japanese has more freedom to use pro compared with the other pro drop languages. My discussion will include:

- what licenses pro in Japanese,
- what features pro can carry in Japanese in terms of referentiality and argumentality,
- what kind of recovery convention is available in Japanese.

After having examined the language specific distribution of pro in Japanese, I will propose a parametric approach to the pronominal category [+pronominal, -anaphoric]. Although my proposal may remain no more than a naive model of a parametric system, I will attempt to answer the questions I raised in 1.1. as much as I am able to.

1.3 Steps of the study

In Chapter Two, I will present some theoretical assumptions about the syntactic component of the case language of this study, Japanese. I will also review some relevant principles in GB with a view to Japanese.

In Chapter Three, first, I will briefly summarize the theory

of pro proposed by Rizzi and accomodate it to Japanese. I will hypothesize that Japanese has four pro-licensing case assigners, N, V, Infl and Comp. Then I will examine the four types of the pronominal category [+pronominal, -anaphoric] which are [-referential, -argumental], [-referential, +argumental], [+referential, -argumental] and [+referential, +argumental]. I will also discuss the recovery conventions for these pros in Japanese which seem to be derived from a univeral principle, "Avoid Pronoun".

In the last chapter, I will propose a parametric approach to a pronominal category in the lexical component of UG. My hypothesis is roughly as follows. The lexical component of UG has a limited number of entries of natural classes such as [-anaphoric +pronominal]. Furthermore each class has some distinctive features. The [-anaphoric +pronominal] class has features such as +/- referential and +/- argumental. Because of the universal principle, "Avoid Pronoun", minus features are likely to associate with [-overt] and plus features are likely to associate with [+overt]. The lexicon and its interaction with the universal principle prepares a parametric schema in UG. My conclusion would be that the parametric differences can be reduced to the feature differences of pro which can be allowed in a language.

Footnote to Chapter One

1. One of the properties he has claimed in his theory is that in Japanese Case is assumed by an NP rather than assigned by a governing head, and then the assumed Case is matched up in a theta-grid. (for detail, see Bouchard, 1983 p.158)

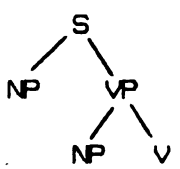
Chapter Two
Theoretical preliminaries

The general theoretical framework which I have adopted in this study is that of the Government and Binding theory (henceforth GB, Chomsky 1981). In this chapter I will present some theoretical assumptions about the syntactic component of the case language Japanese; X-bar syntax and Move alpha, and also review some relevant universal principles proposed in the GB theory with a view to Japanese.

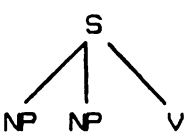
2.1 X-bar syntax

Although configurationality is still an unresolved issue, I will assume in this study that Japanese has a configurational structure. In other words Japanese phrase structure is represented by (1a) rather than (1b):

(1)a.



(1)b.



The non-configurational structure in (1b) has been hypothesized by some linguists including Hale (1980) and Farmer (1980). Relatively free word order in Japanese favours this structure. The following sentences are both grammatical, and furthermore the basic meaning of these sentences is the same.

(2)a. Taroo-ga Hanako-o butta
-NOM -ACC HIT-PAST
(Taroo hit Hanako.)

b. Hanako-o Taroo-ga butta

The configurational structure in (1a) has been employed by many other linguists (Kuroda, Kuno, Harada (1977), Whitman (1982), Saito (1983a), and Hoji (1985), to mention a few). There are three kinds of reasons for me to choose this position. The first reason is that it would be desirable from a theoretical point of view, if we could assume that universal grammar (henceforth UG) has only one phrase structure. The second reason is that there does not seem to be any problem in dealing with Japanese phrase structure in a binary system. In other words there is no empirical reason why we have to assume a non-configurational structure for this language. The third reason consists of some positive evidence. I will introduce one example which seems to provide such evidence that Japanese has a configurational structure.

The example introduced here, which is from Saito (1983a), is related to pronominal coreference.

(3)a. *Kare/i-ga [(zibun-de) John-no sensei-o syookaisita]
HE -NOM SELF -BY -GEN TEACHER-ACC INTRODUCED
(*He/i introduced John's/i teacher (to the audience).)

b. ?John/i-no sensei-ga [(zibun-de) kare/i-o syookaishita]
-GEN TEACHER-NOM SELF -BY HE -ACC INTRODUCED
(John's/i teacher introduced him/i (to the audience).)

If the subject NP and the object NP were sisters as in (1b), the structural relations between the pronoun 'kare' and the intended

antecedent 'John' in these sentences would be exactly the same. Adopting the following definition of "c-command" by Reinhard (1976):

(4) X c-commands Y if neither dominates the other and the first branching node that dominates X dominates Y.

the pronoun 'kare' c-commands 'John' in either case. A widely accepted assumption is that X can not be an antecedent of Y if Y c-commands X (Lasnik (1976), Reinhart (1976), Evans (1980), Chomsky (1981) and Higginbotham (1983)). If we postulate a structure like (1b), we will predict that the optional coreference is impossible in (3b). On the other hand, if we assume the structure (1a), the c-command relations of the pronoun 'kare' to the intended antecedent are different in these two sentences. In (3a) 'kare' c-commands 'John', but in (3b) the former does not c-command the latter. In order to account for the optional coreference, we need to assume a configurational structure as in (1a). More elaborate arguments for Japanese's having a configurational structure can be found in Hoji (1985).

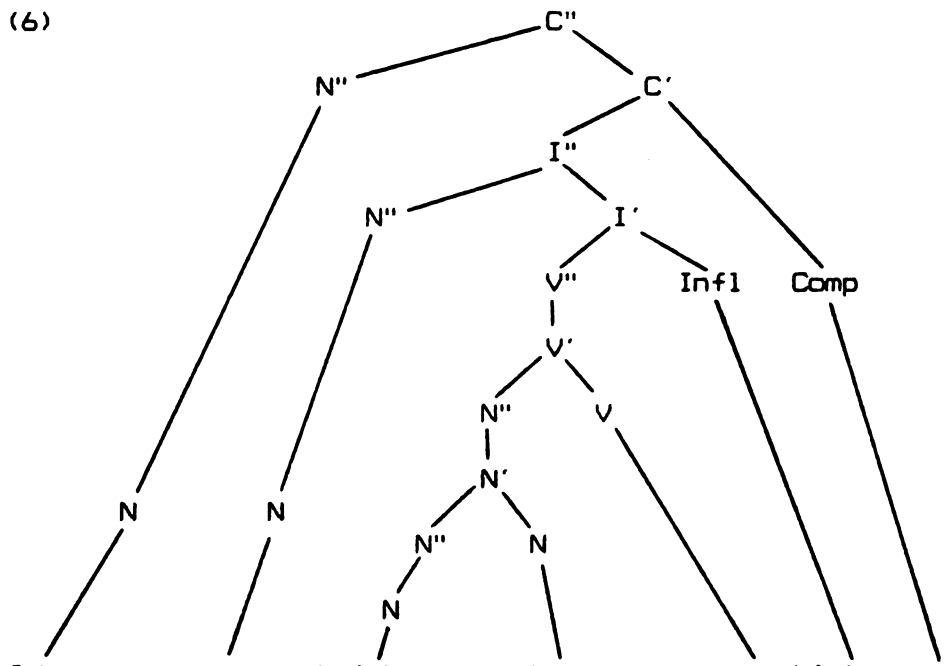
Finally, in this study I adopt the extended X-bar syntax proposed by Chomsky (1986):

(5)a. X" —> X"* X'
b. X' —> X"* X

X"* stands for zero or more occurrences of some maximal projection (Chomsky, 1986 p.2). X"* in (5a) is referred to as the specifier, and X"* in (5b) is referred to as the complement. The

conventional notation which has been used for the lexical categories was also extended to the non-lexical categories such as CP (Comp phrase) and IP (Infl phrase). The maximal projections of these categories are expressed as C" and I" respectively. (6) is a D-structure of a Japanese simple sentence:

(6)



(speaking of John, (his) son embezzled the company's money.)

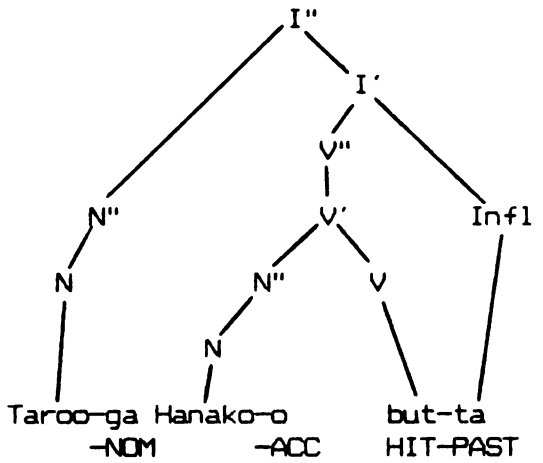
The specifier of Comp is the topic of Comp (or CP), the specifier of Infl is the subject of Infl (or IP), and the complement of V is the object of V (or VP). I assume that the topic of CP can be legitimately generated in D-structure.[1]

2.2 Move alpha

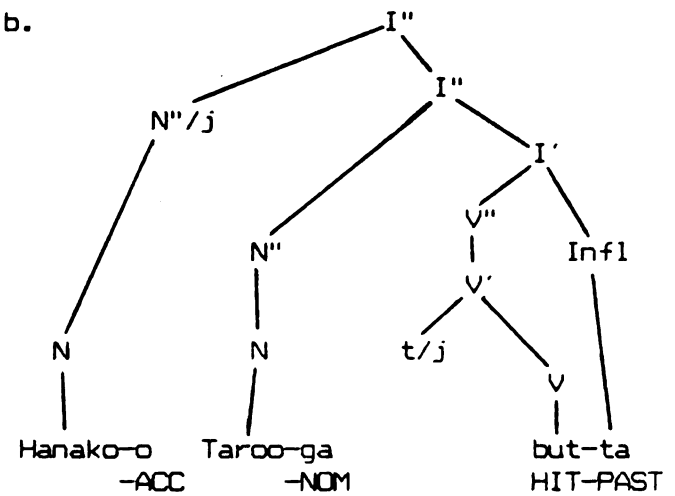
In the previous section I hypothesized a configurational structure for Japanese. Then the question yet to be answered is

how the scrambling phenomena indicated by example (2ab) can be explained along this hypothesis.[2] For this purpose we will have to assume some kind of syntactic movement. It is assumed by Chomsky (1986) that there are two types of movement: substitution and adjunction. There seems to be two possible derivations for (2b); one is by adjunction as in (7b) and the other is by substitution as in (7c). (7a) is the D-structure of (2b).

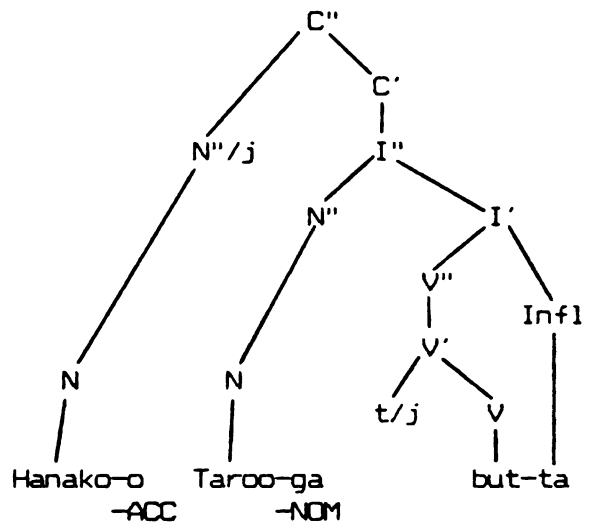
(7)a. D-structure for (2b)



b.



c.



In (7b) the NP 'Hanako-o' is adjoined to IP node, whereas in (7c) an empty node in the specifier position of CP is substituted with the NP 'Hanako-o'. I assume that scrambling is an NP-movement into the specifier position of CP as in (7c) rather than adjunction to IP as in (7b).[3] My assumption is supported by the following observation.

(8)a. Daremo-ga dareka-o aishitei-ru.
EVERYONE-NOM SOMEONE-ACC BE LOVING-PRESENT
(Everyone loves someone.)

b. Dareka-o Daremo-ga aishitei-ru.
SOMEONE-ACC EVERYONE-NOM BE LOVING-PRESENT
(Everyone loves someone.)

(8a) is ambiguous. Either of the quantified NPs in (8a) can take wide scope, whereas in (8b) only the preposed NP takes wide scope. If the object NP 'dareka'(someone) were adjoined to IP, the sentence should be still ambiguous because the preposed NP is still dominated by the IP which dominates the subject NP. If the object NP is moved to the specifier position of CP, it will have a wide scope over the subject NP because it is no

longer dominated by IP which dominates the subject NP.

Before I move to the next section, I would like to point out two things. One point is that the subject NP which is the specifier of IP is not subject to the NP-movement which I supposed for the object NP in the previous section, because such a movement would be always vacuous, and furthermore, there doesn't seem to be any evidence for it.

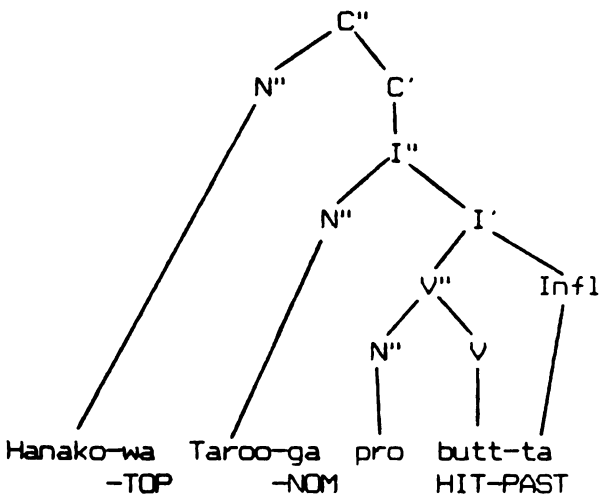
The other point is that the following two similar sentences have two different D-structures.

(9)a. (=2b) Hanako-o Taroo-ga butta
-ACC -NOM HIT-PAST
(Taroo hit Hanako.)

b. Hanako-wa Taroo-ga butta
-TOP -NOM HIT-PAST
(Speaking of Hanako, Taroo hit her.)

I assumed that (9a) is derived by NP-movement into the specifier position of CP (s. (7a)&(7c)). For (9b) I will assume the following D-structure.

(10)



This will become relevant in the following sections where I will discuss Case theory and Theta theory.

2.3 Case theory

The basic assumption of the case theory is that an overt NP must have a case. This assumption is based on the observed fact that if an NP does not have a case, it yields ungrammaticality (Case Filter: Chomsky 1981). In this section I will consider the following cases in Japanese.[5]

(11) Topic case Nominative case
     Accusative case
     Genitive case

The environments in which these cases are assigned can be defined as follows:

(12) Topic [___wa IP Comp]
     Nominative [___ga VP Infl]
     Accusative [___o Vt] (Vt: transitive verb)
     Genitive [___no N]

The case theory elaborates the way in which these cases are to be assigned. It says that a case is assigned by a case assigner when the case assigner and the NP to which it assigns the case are in a certain structural relation which is known as government.

(13) Government:

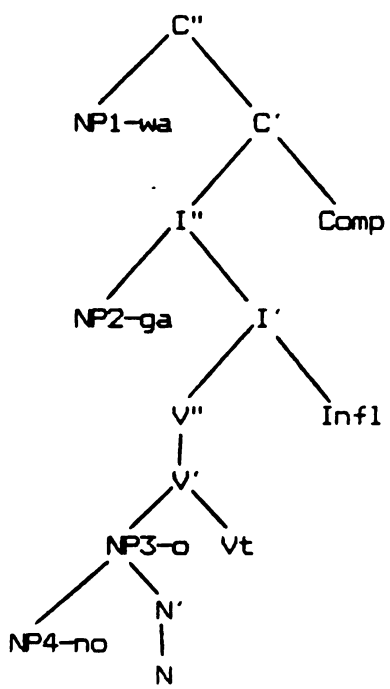
> X governs Y if Y is contained in the maximal X-bar projection, Xmax of X, and Xmax is the smallest maximal projection containing Y, and X m-commands Y.
>
> (Riemsdijk & Williams, p.231)
>
> (Chomsky 1986, p.8)

(14) M-command

> X m-commands Y iff X does not dominate Y and every maximal projection Z that dominates X dominates Y. (Sportiche 1983)

According to these definitions the following four NPs, NP1 through NP4, are being governed by the heads of the phrases which are presumed to be case-assigners (R&W p.230).

(15)



Topic case is assigned to NP1 by Comp, nominative case is assigned to NP2 by Infl, accusative case is assigned to NP3 by Vt, and genetive case is assigned to NP4 by N.

Among these four cases the nominative and accusative are

thematic cases. These are thematic because they bear thematic roles projected by a verb. In fact they behave quite differently from the other non-thematic cases. In general all NPs in Japanese are always lexically case-marked. The only exceptions are these thematic cases.

(16) Kimi gohan tabeta no (rising intonation)
YOU MEAL EAT-PAST COMP
(Did you eat?)

Boku gohan tabeta no (falling intonation)
I MEAL EAT-PAST COMP
(I ate.)

In the colloquial style "ga" and "o" often drop. Another peculiar phenomenon of these case markers is that they never occur with the topic marker "wa", whereas the other case markers including dative and locative often may occur with topic case marker (see Footnote 5).

(17) *NP-ga-wa
*NP-o-wa

In order to account for this phenomenon we seem to have to move to another module, theta theory, which is the focus of the next section.

2.4 Theta theory

The concern of this theory is the fundamental logical notion "argument of". The semantic content of a verb includes a certain argument structure in which a certain role or roles are being played. In other words a verb projects a certain role or roles

which are borne by the arguments of the verb. And each of these roles holds a thematic relation to the verb. A Japanese verb "tabe" (eat) has two arguments; one plays the role of 'eater' and the other plays the role of 'eatee'. These roles are called theta roles (Theta stands for thematic). These roles represent the thematic relations to the verb such as 'agent of' or 'theme of'. "Agent" and "theme" are types of argument, called "argument types."

One important point about the thematic relations is that they are very local. In other words a verb never takes an NP in a lower or an upper clause as its argument. The reason why the NP in the specifier position of IP (NP-ga, nominative-cased NP) and the NP in the complement position of VP (NP-o, accusative-cased NP) behave differently from the other case-marked NPs in Japanese is that these NPs are subject to the Theta-Criterion, which roughly says that every NP in the locality of an argument structure of a verb must receive one and only one theta-role.[6] In the following definition this criterion is extended for the case in which an NP was moved out of the theta-position and left a trace.

(18) Theta-Criterion

Every chain must receive one and only one theta-role. (R&W p.245)

Chain: A chain consists of an NP (head of the chain) and the traces coindexed with that NP. (R&W p.245)

This criterion has been assumed to hold at any syntactic level,

D-structure, S-structure, and LF. The lexical properties of verbs are projected throughout the syntactic levels. This is called Projection Principle.

(19) Projection Principle

> The Theta-Criterion holds at D-Structure, S-Structure, and LF. (R&W p.252)

Japanese subject NPs and object NPs are case-marked by Infl and Vt respectively and at the same time they are also assigned theta-roles by virtue of the thematic position in which they are located. Assuming that case-assignment is a D-structure property, there is no way to derive the following sentence.

(20) *Hanako-o-wa Taroo-ga butta.
-ACC-TOP -NOM HIT-PAST

The thematic accusative case "-o" is not able to be assigned in the topic position which is non-thematic position. The only way to have an NP-o in the topic position is by movement. The NP-o is generated in the theta-position in D-structure and moved to the specifier position of CP leaving a trace behind. Then a topic case won't be assigned in S-structure. If the NP "Hanako" is generated in the topic position in D-structure, it will be simply assigned topic case, and an EC in the object position will be assigned accusative case. In this case the Theta-Criterion is also being observed.

2.5 The Empty Category Principle

The binding theory concerns the conditions under which NPs are bound or not bound. A recent version of these conditions are stated in terms of binary features, [+/- anaphoric], [+/- pronominal].

(21) Binding theory

A. A [+ anaphoric] NP must be bound in its governing category.
B. A [+ pronominal] NP must be free in its governing category.
C. A [- anaphoric, -pronominal] NP must be free.

(R&W p.279)

The empty categories are to be classified into four types by these features just like the overt NP categories.

(22) NP types

[+anaphoric, -pronominal]	bound anaphors,	NP-trace
[-anaphoric, +pronominal]	pronouns	pro
[-anaphoric, -pronominal]	Lexical NP's	logical variables
[+anaphoric, +pronominal]		PRO

(R&W p.278)

The empty categories are defined as phonologically null NPs which share the binding properties with overt NPs.

The standard strategy towards these empty categories consists of two layers of tasks. One is to license these by a formal licensing principle, the other is to provide a recovery device for their content. NP-traces and variables are licensed by the Empty Category Principle.

(23) Empty Category Principle

[e] must be governed (in some sense). (Chomsky 1981, p.250)

PRO is licensed outside this condition. In other words PRO is restricted to occur in an ungoverned context. The content of PRO and its recovery is dealt with by the theory of Control. The content of NP-traces and variables are recovered by the chain formation to their antecedent NPs and their operators respectively.

The last type of empty category, [-anaphoric +pronominal] (pro) has been treated quite differently from the other types as I already mentioned in the preceding chapter. Since the new theory of pro proposed by Rizzi (1986) is the one of the main topics in the following chapter, I will leave it untouched.

In this chapter I have presented some basic assumptions which will be assumed throughout this study. I have made no attempt to prove the correctness of these assumptions in this study because these are outside the scope of my study. However, it is taken for granted that these assumptions are not obviously incorrect or unplausible. I have also reviewed some universal principles which have been proposed in the GB framework, which I will adopt in my study without further examination.

Footnotes to Chapter Two

1. Kuno (1973) has proposed a "thematization transformation" (P.71), which derives the example (6) from the following sentence.

(i) [[[John-no]musuko-ga]kaisha-no okane-o ooryooshita]
-GEN SON-NOM COMPANY-GEN MONEY-ACC EMBEZZLE-PAST
(John's son embezzled the company's money.)

A possesive NP inside the subject NP is extracted by this transformation rule to the sentence initial position, although the landing site of this movement is not clear. The reason why I am not taking this apporach is that there seems to be a semantic difference between (6) and (i). (6) has a presupposition that John is alive, whereas (i) does not have such a presupposition. A sentence like (ii) which has the opposite presupposition, i.e., that John is not alive, will yield an ungrammatical discourse after (6), but not after (i).

(ii) John-ga ikiteitara, nageita daroo
-NOM WAS ALIVE-IF DEPLORE-PAST WOULD BE
(If John were alive, he would have deplored.)

2. For the sake of simplicity, I will continue to ignore dative NP and its local scrambling inside VP, although I do not see any difficulty in applying the same kind of analysis as one I have proposed here to the local scrambling inside VP. In that case, a possible landing site of the NP-movement would be the specifier position of VP.

3. May (1985) has come to assume the following concerning the interpretation of adjunction structures.

[y X [y ...]]

X is dominated by y only if it is dominated by every segment of y.

According to this assumption, the preposed NP by adjunction to IP (7b) is no longer dominated by the IP. This device prevents the subject NP from having a wider scope over the preposed NP. Saito (1983b) hypothesizes adjunction movements for the scramblings.

4. Kuno's observation (1973) seems to be basically the same as mine. He claims two possible interpretations (ii) and (iii) for the following example (i):

(i) (Kuno's (21a) P.360)

Yonin no syoonen ga sannin no syoozyo o okasita
FOUR BOY THREE GIRL SEXUALLY-MOLESTED

koto ga aru
EXPERIENCE HAVE
'Four boys have the experience of sexually molesting three girls.'

(ii) Each of the same four boys has sexually molested each of the same three girls. (4 boys and 3 girls involved)

(iii) Each of the same four boys has sexually molested three (possibly) different girls. (4 boys and minimum 3 and maximam 12 girls involved

However, he observes that the scrambled version of (i) has only one interpretaion (ii).

(iv) (Kuno's (23), p. 361)

Sannin no syoozyo-o yonin no syoonen ga okashita koto ga aru
THREE GIRL ` FOUR BOYS MOLESTED
(Lit.)'Three girls, four boys have the experience of sexually molesting.'

Kuroda (1970) reports a different observation upon this point. His examples are the following:

(v) (=Kuroda's (54) p. 136)

(kono ie-no) dareka-ga (kono heya-no) subete-no hon-o yonda
THIS HOUSE-GEN SOMEONE-NOM THIS ROOM-GEN ALL-GEN BOOK-ACC READ
(Someone (in this house) read all the books (in this room).)

(vi) (=Kuroda's (59) p. 137)

(kono ie-no) subete-no hon-o (kono heya-no) dareka-ga yonda
THIS HOUSE-GEN ALL-GEN BOOK-ACC THIS ROOM-GEN SOMEONE-NOM READ

His observation is that in (v) 'dareka' (SOMEONE) takes wide scope unambiguously. That is (v) means that there is someone who read all the books. However, he claims that (vi) has another interpretation besides one which (v) has, i.e., that for each book there is someone who has read it. From these observations he draws the following generalization:

If a predicate corresponds to a sentence frame with the "preferred" word order, the semantic order of quantifiers is given by their linear order; if a predicate corresponds to a sentence frame with "inverted" word order, the semantic order of quantifiers is ambiguous. (Kuroda; 1970, p.138)

This generalization, however, does not seem to give the right prediction for a simple case as my example (8ab).

5. These are not the only cases that Japanese has. Besides these

cases Japanese has locative(-de), temporal(-ni), ablative(-kara), instrumental(-de), dative(-ni) cases. Because my discussion will not be directly related to these cases, I excluded them here. The NPs which are marked by these cases except for dative case only occur outside the thematic relation projected by a verb. These might be inherently case-marked before being mapped into the syntactic form. The following examples show that a bare locative NP (without a locative case-marking) can not occur in topic position, unless it is moved by scrambling.

(i) Taroo-ga yama-de shinda.
-NOM MOUNTAIN-LOC DIE-PAST
'Taroo died in the mountain.'

(ii) Yama-de Taroo-ga shinda.
MOUNTAIN-LOC -NOM DIE-PAST
'In the mountain, Taroo died.'

(iii) Yama-de-wa Taroo-ga shinda.
MOUNTAIN-LOC-TOP -NOM DIE-PAST
'In the mountain, Taroo died.'

(iv)* Yama-wa Taroo-ga shinda.
MOUNTAIN-TOP -NOM DIE-PAST

6. I will define the locality of an argument structure of a verb as follows:

(13) The locality of an argument structure of a verb can be defined by and only by the NP or NPs which are immediately dominated by IP or VP which that verb belongs to.

This definition will allow the topic NP in the specifier position of CP and the genitive NP in the specifier position of the argumnent NP to escape the requirement of the THeta Criterion. This will become relevant in the following chapter.

Chapter Three
Zero pronoun phenomena and pro in Japanese

3.0 Zero pronouns in Japanese

In Japanese, pronouns are used less frequently than they are in English.[1] This is so because Japanese has other options. Instead of using 'you', for example, we use the given name of the addressee,[2] or we simply do not use anything. The latter option is called "zero pronoun". The zero pronouns are widely used to refer to the discourse topic. In other words an established topic tends to be phonetically null,[3] or implicitly understood. The following examples illustrate these phenomina.

(1)a. Anata-wa ginkoo-e ikimasu ka
YOU-TOP BANK-LOC/DIRECTION GO Q
(Will you go to the bank?)

b. Yamada-san-wa ginkoo-e ikimasu ka
Mr.-TOP BANK-LOC/DIRECTION GO Q
(Will you, Mr. Yamada, go to the bank?)

c. ... ginkoo-e ikimasu ka
BANK-LOC/DIRECTION GO Q
(Will [you] go to the bank?)

(2)a. Watashi-wa ginkoo-e ikimasu
I-TOP BANK-LOC/DIRECTION GO
(I will go to the bank.)

b. ... ginkoo-e ikimasu
BANK-LOC/DIRECTION GO
([I] will go to the bnak.)

The English translations of (1c) and (2b) are given with an assumption that these sentences were uttered in discourse initial position. If these are uttered in the middle of a discourse, the gaps indicated by ... are construed as the discourse topic.

One of the issues about these phenomena which have been discussed in the literature is the putative asymmetry between the zero subject and the zero object, which was first noted by Kuroda (1965) and recently cited by Huang (1984) and Hasegawa (1984). The examples cited by Huang are the following.

(3)a. (Huang's (25a))

dare/i-ga [e/i Bill-o nagut-ta] to itta ka?
WHO -NOM -ACC HIT-PAST COMP SAY-PAST Q
(Who/i said that [he/i] hit Bill?)

b. (Huang's (25b))

dare/i-ga [Bill-ga e/i nagut-ta] to itta ka
WHO -NOM -NOM HIT-PAST COMP SAY-PAST Q
(Who/i said that Bill hit [him/i]?)

Kuroda observed that an optional coreference between the matrix subject and the zero subject in (3a) is allowed, however the matrix subject and the zero object in the embedded clause in (3b) cannot be co-referential. This led Huang and Hasegawa to postulate a different type of EC for the zero object in Japanese, i.e. a variable bound by a zero operator (zero topic, s. Huang). I will claim that (3b) is grammatical as well as (3a). The same position has been taken by Hoji (1985), Kitagawa (1985) and Whitman (1985). Zero objects seem to be always licit in Japanese.

(4) Watashi-wa [haha-ga ... yonda] to] omotta
I -TOP MOTHER-NOM CALL-PAST COMP THINK-PAST
(I thought that my mother called [me].)

(5) Keisatsu-ga ... taihoshita toki Yamada-san-wa yotteita
POLICE-NOM ARREST-PAST WHEN Mr.-TOP BE DRUNK-PAST
(Mr. Yamada was drunk when the police arrested [him].)

(6) Yamada-san-wa [[daremo ... wakatte-kure-nai]
-NOM NO ONE UNDERSTANDING-GIVE A FAVOR BY-NEG
to] itta
COMP SAY-PAST
(Mr. Yamada said that no one is kind enough to understand [him])

If these were uttered discourse-initially, the gaps which are indicated by ... would be construed with the subject or topic in the matrix sentence, and if they were uttered discourse-medially, the gaps could be also construed with the discourse topic.

The question which arises here is what the syntactic status of these gaps is, or how these gaps can be integrated into the theory of empty categories which has been developed in recent linguistic investigations. The purpose of this chapter is to relate these zero pronoun phenomena in Japanese to the pro-drop phenomena in Italian and other languages and to provide a unified explanation. In order to do so, I will spell out the zero pronoun phenomena in terms of pro, the [-anaphoric +pronominal] EC, according to the theory of pro proposed by Rizzi (1986).

3.1 Rizzi's theory of pro

In this section I will summarize some important claims which have been made in "Null objects in Italian and the theory of pro" by Rizzi (1986), and introduce his theory of pro, which I will attempt to accomodate to Japanese zero pronoun phenomena through the rest of this chapter.

3.1.1 Null object in Italian

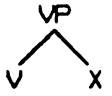
Rizzi explored the null objects in Italian which are construed as empty pronouns with arbitrary interpretation. His hypothesis is that those missing objects in Italian are structurally realized as phonetically null elements, whereas the English understood objects are not structurally realized.

(7)a. This leads (people) to the following conclusion.

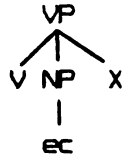
b. Questo conduce (la gente) alla seguente conclusione.
(Rizzi p.501)

According to his hypothesis, the variant of (7a) in which the parenthesized direct object is omitted (implicitly understood) has a VP structure as in (8a), whereas the corresponding variant of (7b) has a VP structure as in (8b).

(8)a.



(8)b.



One kind of empirical evidence for this hypothesis is that the understood object in Italian is syntactically "active" inasmuch as it can act as

- a controller
- a binder
- a subject of predication for an adjunct
- a subject of predication for an argument small clause,

whereas the null object in English seems to be "inert" in these environments. The other kind of evidence is the productivity of the null object option. The possibility of null object with

arbitrary interpretation in English seems to be highly restricted, whereas in Italian the possibility of a null object seems to be a true syntactic option.

If the null object in Italian is structurally realized as phonetically null element, the next question to be answered is in which type it should be categorized in the current typology of null elements. Rizzi's answer is the [-anaphoric, +pronominal] empty category, i.e., pro.

The null object is governed by V, therefore it receives a governing category. According to the binding condition A, it must have a close enough antecedent within the governing category in order to be [+anaphoric]. the arbitrary null object has no antecedent, hence, it is [-anaphoric]. This excludes trace and PRO as possible types.

To assume the null object as [+pronominal] will lead us to the pro hypothsis, and to assume it as [-pronominal] will lead us to the operator-variable hypothesis. What is known about null operators is that, when they are moved in the syntax, they seem to move in Comp, where they cannot cooccur with other (overt or null) operators.[4] However Rizzi pointed out that arbitrary null objects can occur in the strucures where there are overt operators in Comp.

(9) (=32a) Quale musica riconcilia ____con se stessi?
'Which music reconciles ____ with oneself?'

In order for us to keep the operator-variable hypothesis we have to burden ourselves with an anomaly this fact would represent. The null operator binding the arbitrary null object would, unlike the familiar instances of null operators, allow cooccurence with another operator. From this perspective, the operator-variable hypothesis is not plausible.

3.1.2 Formal licensing

If we defend the pro hypothesis, in other words, if we assume that the null object in Italian belongs to the type pro, we will have to revise the standard theory of pro which licenses pro only in the positions where pro can be locally construed with "strong agreement"[5]. If pro were restricted in such positions, pro should be excluded in object position both in Italian and in English and in fact in any language which does not have an object agreement.

Rizzi claimed that the revision of the standard theory of pro should be done along the line in which the other EC's have been formalized in the GB theory. As he correctly pointed out, in the standard theory of pro, the formal licensing and the recovery convention are combined, which is rather peculiar in comparison with the other EC's. The latter are formally licensed independently from the recovery procedure of their contents (s. Chap2). The most important innovation in his theory of pro is to separate the formal licensing from the recovery convention.

He has proposed that pro is formally licensed through Case-assignment.[6]

(10)(=(49) by Rizzi)

Formal licensing principle of pro:
pro is Case-marked by X_y^o (X_y^o = a governing head of type y)

Rizzi further suggests that this component can be parameterized in terms of the set of possible licensers which each language allows.

(11) Italian X_y = {Infl, V}
French X_y = {V, P} (Zribi-Herta, 1984)
English X_y = {ϕ}

3.1.3 Recovery convention

Rizzi elaborates the recovery component for pro which can be used as either a referential definite pronoun or an arbitrary pronoun in Italian. The content of pro as a referential definite pronoun can be recovered through the following convention.

(12) (Rizzi's (41))

> Let X be the licensing head of an occurrence of pro: then pro has the grammatical specification of the features on X coindexed with it.

The idea that the content of pro in subject position is recovered through the rich agreement specification, which has been behind most of the null subject analyses, has been here restated in a more general form. Through this convention, pro is allowed to have enough specification to be a definite pronoun.

For the arbitrary interpretation, Rizzi assumes the following procedure.

(13) (Rizzi's (43)

Assign arb to the direct Theta-role.[7]

Rizzi introduced this rule as a lexically governed process applying on theta-grids in the lexicon. However, he also assumes that this rule can be applied not only in the lexicon but also in the syntax. In English, this rule applies in the lexicon, whereas in Italian,[8] it applies in the syntax. In the former case, the object theta-role which is assigned 'arb' interpretation saturates the lexical content of the verb before it is projected by the Projection Principle, which results in a distortion or modification of the argument structure. In the latter case, the argument structure cannot be affected because in the syntax, the object position has already been projected by the Projection Principle.

3.1.4 Consequences

One important point about separating the formal licensing from the recovery component is that now we can licitly extend the theory of pro to account for the implicit arguments observed in the languages which do not have agreement systems but other kinds of recovery conventions. I believe that Japanese is one of those languages.

Another important theoretical consequence is that we can also extend the field of the investigation to the null expletive as an instance of 'disassociation' between the two components, in which pro is licensed, and licitly used, although it does not have any content to be recovered.[9] In fact many languages which do not allow null referential subjects in tensed clauses do allow null expletives (see Safir (1983) on German, Pollock (1983) on subjunctive clauses in French, Platzack (1985) on the insular Scandinavian languages). Assuming these null expletives are instances of pro, we can classify the instances of pro according to its referentiality and argumenthood as follows.

(14)a. pro ha telefonato. (pro = referential argument)
'He telephoned.'

b. pro piove. (pro = nonreferential argument)
'It is raining.'

c. pro e stato detto che S (nonargument)
'It was said that S'

As Rizzi correctly pointed out, the referential interpretation is not the only way to interpret a pronoun (Lecture in LSA Summer Institue 1986). The pronominal NP's, [+pronominal -anaphoric] NP's can be viewed through two distinctive features, [+/- referential] and [+/- argumental]. [+/- referential] means whether or not an NP can pick up a reference from a domain of discourse. [+/- argumental] means whether or not an NP can bear a thematic role.[10] Restricting our attention to Infl-licensed occurrences of pro, the following is a quick survey of the distribution of pro.

(15)

	English	German	Icelandic	Italian
[+ref. +arg.]	*	*	*	-
[-ref. +arg.]	*	*	-	-
[-ref. -arg.]	*	-	-	-

* null subject is ungrammatical
\- null subject is grammatical

We notice that there is one more possible combination of these two binary features, i.e. [+ref. -arg.]. According to the principles Rizzi proposed and 'an intrinsic hierarchization of referentiality and argumenthood,' something that is not argumental cannot be referential (Rizzi, 1986, p.547 n.45).[11] I would like to come back to this later.

3.2 pro in Japanese

The attempt in this section is to accommodate the theory of pro introduced in the previous section to pro in Japanese.

3.2.1 Formal licensing

In the previous chapter, I discussed the Case-assignment in Japanese. Topic case is assigned by Comp, nominative case is assigned by Infl, accusative case is assigned by Vt, and genitive case is assigned by N. (s. (15) Chap.2) I will claim that all these Case-assigners are pro licensers in Japanese.

(16) Japanese Xy = { N, V, Infl, Comp }

The following examples illustrate the instances of pro's

licensed by N, V, and Infl respectively. The English translations I give are for the discourse initial interpretations.

(17)a. N-licensing

pro-no* onaka-ga sui-ta
[my]-GEN STOMACH-NOM BECOME SCARCE-PAST
(I am hungry.)

* Case marker can never be realized without an overt NP.

b. V-licensing

pro-o bakanishi-naide kudasai
[me]-ACC MAKE FUN OF-NEG REQUEST
(Please don't make fun of me.)

c. Infl-licensing

pro-ga shiken-ni ochi-ta
[I]-NOM EXAM-DAT FAIL-PAST
(I failed in the exam.)

If these sentences were uttered in the middle of the discourse, pro could be interpreted as the discourse topic. Suppose we have a discourse topic "Taroo", these sentences could be explicitly uttered as the following.

(18)a. (for (17a))

Taroo/i-wa pro/i-no onaka-ga sui-ta
-TOP -GEN STOMACH-NOM BECOME SCARCE-PAST
(Speaking of Taroo, he is hungry.)

b. (for (17b))

Taroo/i-wa pro/i-o bakanishi-naide kudasai
-TOP -ACC MAKE FUN OF-NEG REQUEST
(Speaking of Taroo, please don't make fun of him.)

c. (for (17c))

Taroo/i-wa pro/i-ga shiken-ni ochi-ta
-TOP -NOM EXAM-DAT FAIL-PAST
(Speaking of Taroo, he failed in the exam.)

Because Comp licenses pro in the topic position in Japanese, pro can be used as a null option for the overt NP "Taroo".

(19) ....Taroo/i.....

a. pro/i-wa pro/i-no onaka-ga sui-ta
-TOP -GEN STOMACH-NOM BECOME SCARCE-PAST

b. pro/i-wa pro/i-o bakanishi-nai-dekudasai
-TOP -ACC MAKE FUN OF-NEG-REQUEST

c. pro/i-wa pro/i-ga shiken-ni ochi-ta
-TOP -NOM EXAM-DAT FAIL-PAST

Notice that the phonetic environments of the examples in (17) are exactly the same as those of the examples in (19).

3.2.2 Recovery convention

In this section I would like to present a first approximation about the recovery convention for pro in Japanese. We have just seen that pro is licensed and can be used wherever an overt pronoun can occur. However, the content which can be recovered is quite restricted in comparison with the referential pro in Italian. The Italian referential null subject can be assigned six different referential contents. On the other hand, the Japanese null subject in (17c), for example, can be assigned only one referential content of first person singular. In order for pro in (17c) to be recovered in a full range of referential

contents, it must be bound by the discourse topic, which can have a full range of referential contents.

The first aproximation of the recovery procedure of pro in Japanese is:

(20)a. Assign first person singular to a pro in a declarative sentence which is not bound by a discourse topic.

b. Assign second person singular to a pro in an interrogative sentence which is not bound by a discourse topic.

c. Assign the same referential content as the discourse topic to a pro which is bound by that discourse topic.

Because the first person and second person pronouns do not need the antecedents by their intrinsic nature, pro which does not have an antecedent can be understood as first person in a declarative sentence which is a statement by the speaker, and as second person in an interrogative sentence which is a question to the addressee. If the example sentences (17ac) were uttered with a rising intonation as a question, pro would be assigned a referential content of second person singular. (20a) and (20b) are analogous to the rule of assigning arb to the null object in Italian. In both cases, the intrinsic natures of these pronouns are conventionalized. (20c) is a standard binding, unlike Rizzi's convention in which the content of pro is recovered through nonstandard binding by (features on) the licensing head (see (12)). These recovery conventions seem to be language specific manifestations of a universal principle "Avoid Pronoun" (Chomsky 1981, p.65). I will come back to this later.

3.3 Japanese zero pronoun and a language specific typology of pro

In a previous section, 3.1.4, we have seen that the possible use of pro can be defined through the two distincitive features, [+/-referential] and [+/-argumental]. Theoretically, there can be four different kinds of uses of pro.

(21)a. [+referential +argumental]
b. [-referential +argumental]
c. [+referential -argumental]
d. [-referential -argumental]

In the following sections I will go through this typology and explore the Japanese zero pronouns which have been hypothesized as the instances of pro in the previous section. Although Rizzi excluded the third kind of pro, (21c), from his discussion, I would like to include this in my discussion because I believe that Japanese does in fact have this kind of pro.

3.3.1 [-referential -argumental] pro

It is said that Japanese has no expletive.

(22)a. [... [Fuji-san-wa [utsukushii] to] iwareru]
MT. FUJI-TOP BEAUTIFUL COMP IS SAID
(It is said that Mar. Fuji is beautiful.)

b. [... [Taroo-ga Hanako-o but-ta] yoo da]
-NOM -ACC HIT-PAST SEEM
(It seems that Taroo hit Hanako.)

A question which naturally arises here is whether the ... parts are structually realized as phonetically null or there are not such slots at all. If we assume the latter, we will say that

Japanese has no expletive because there is no space to insert such an element.

If we assume that there are such slots indicated by ... in the examples of (22), it seems that there are two ways to go. In one way we could say that Japanese has no expletive because the subject raising is obligatory. The corresponding S-structures of these sentences will be the following.

(23)a. [Fuji-san-wa [t [utsukushii] to] iwareru]
-TOP BEAUTIFUL COMP IS SAID
(Mt. Fuji is said to be beautiful.)

b. [Taroo-ga [t Hanako-o butta] yoo da]
-NOM -ACC HIT SEEM
(Taroo seems to have hit Hanako.)

In the other way, we could fill the ... parts with [-referential, -argumental] pro. Then we would have to say that Japanese has no overt expletive, but null expletive, which in fact is allowed in such languages as Italian, German, Icelandic (see 3.1.4).

It seems that there is no empirical evidence to support any of these three hypotheses. What is true in any case, however, is that Japanese has no overt [-referential -argumental] pronominal. I will not go further into this topic. My discussion in this section would suffice if I pointed out one thing. That is there is a certain possibility to defend the working hypothesis proposed by Rizzi (personal communication) that, once pro is licensed in a language, that language uses pro starting at the lowest level of the hierarchy. In other words, if pro is

available in a language, that language is likely to use it for something which has neither a reference nor argumenthood. Of course, whether that language does need such an element or not, is another question.

3.3.2 [-referential +argumental] pro

The weather predicates in Japanese seem to take a null subject.[12]

(24)a. ... samu-i
BE COLD-NONPAST
(It is cold.)

b. ... ame-ni nat-ta
RAIN-DAT BECOME-PAST
(It turned out that it rains.)

If the speaker intends to mean exactly what the English translations mean, then the subject must be null. In other words, if the subject has no reference, then it must be null. Unlike the [-referential -argumental] pro, it is quite easy to realize a syntactic structure in the ... parts in these sentences because the verb "nar" (become) usually takes an overt subject, and the stative verb "samu" also takes an overt subject, if it is used metaphorically.

(25)a. Hutokoro-ga samu-i
ONE'S PURSE-NOM BE COLD-NONPAST
([I] have a light purse.)

b. Taroo-ga isha-ni nat-ta
-NOM DOCTOR-DAT BECOME-PAST
(Taroo became a doctor.)

Assume that we have pro in the ... parts in (24ab), can this pro be [+argumental]? A test suggested by Rizzi (see footnote 10) is to see if this pro can be a controller of a PRO. In order for an NP to be a controller of a PRO, it must be an argument.

(26) [PRO ichinichi mo harezuni] pro tootoo ame-ni nat-ta
ONE DAY EVEN NOT CLEARING UP FINALLY
(It finally turned out to be raining without clearing up even one day.)

The pro in (26) is [+argumental] because it can control the PRO in the embedded sentence. It must be [-referential] because it can not pick up a particular reference in a domain of discourse.

It seems to me a reasonable conclusion that as in Italian and Icelandic, in Japanese a [-referential] pronominal cannot be overt, even though it is an argument. If a natural assumption is that the minus features are associated with the empty category and the plus features are associated with the overt category (I will discuss more detail about this assumption in the following chapter), it would be reasonable to ask, whether or not something which is referential could be overt, even if it is [-argumental]. As far as Japanese is concerned, the answer seems to be affirmative. I will come back to this kind of pronominal ([+referential -argumental]) after the following section.

3.3.3 [+referential +argumental] pro

If a pro is licensed by Infl or V, and its referential content is recovered, then that pro is [+referential

+argumental]. This kind of pro creates an implicit argument, or a zero pronoun in argument position, and seems to be widely used in Japanese. In this section, I will look at two occasions in which the [+referential +argumental] pro can be used. First, I will look at the sentential arguments of communication and mental experience predicates, in which pro is coindexed with the matrix subject. I will consider how to accommodate the tentatively proposed recovery conventions (20ab) to this case. Second, I will discuss Japanese speaker-oriented verbs, which seem to allow [+referential +argumental] pro because of their lexical contents.

3.3.3.1 pro in sentential arguments

So far, I have been discussing only simple sentences and their pros. The proposed recovery conventions (20ab) seem to work well in the sentences which I have examined. Could we accomodate these conventions to pro in a subordinate clause which is coindexed with the matrix subject? This is the question to be answered in this section. In particular, I will discuss pro which occurs in the sentential arguments of predicates of communication and mental experiences. These predicates are called logophoric predicates because they are known to take a logophoric pronoun in

13

their sentential arguments. I restrict my discussion to pro which is not bound by the discourse topic. Pro which is bound by the discourse topic is subject to the recovery convention (20c), whether or not it is an argument.

Let us consider the following example.

(27) Taroo-ga Hanako-ni [kare-ga ringo-o tabe-ta] to iw-ta
-NOM -DAT HE -NOM APPLE-ACC EAT-PAST COMP SAY-P.
(Taroo said to Hanako that he had eaten the apple.)
(Taroo said to Hanako, "He ate the apple.")

I have had to give two different English translations for this sentence because in Japanese, direct discourse and indirect discourse are not as easily distinguished as they are in English. In indirect discourse, the third person singular pronoun "kare" can refer to either Taroo or someone else, whoever is reporting Taroo's having said something. In direct discourse, the pronoun "kare" is being used from Taroo's point of view because in the reported sentence by the speaker, "Taroo" is the person who actually said that someone ate the apple. Kameyama (1984; 1985), Kuno(1986) and Maling (1984) propose a feature [+ log] that is specified on a particular NP by a logophoric predicate. Kuno introduced (lecture LSA 1986 Summer Institute) two features [+ log I] and [+ log II]. [+ log I] and [+ log II] are given to the agent NP and the patient NP respectively by a predicate of communication and mental experiance such as "iw" (say), "kik" (ask), "tsuge" (inform), "omow" (think), "kizuk" (notice) etc.

If (27) is ambiguous, (28) should be ambiguous for the same reason.

(28) Taroo-ga Hanako-ni [watashi-ga ringo-o tabe-ta] to]
-NOM -DAT I-NOM APPLE-ACC EAT-PAST COMP
iw-ta
SAY-PAST
(Taroo said to Hanako that I had eaten the apple.)

Whereas (27) is absolutely ambiguous, (28) is not. (28) is mostly understood as an indirect discourse representation. The reason seems to be obvious. As we have seen, in a simple sentence in Japanese, the first person singular pronoun "watashi" is avoidable by using a licit pro and the recovery convention (20a). It is very likely that Taroo actually said, "[pro-ga] ringo-o tabeta." The direct discourse version of (28) is very likely to be as follows.

(29) Taroo-ga Hanako-ni [pro-ga ringo-o tabe-ta] to] iw-ta
-NOM -DAT -NOM APPLE-ACC EAT-PAST COMP SAY-PA
(Taroo said to Hanako, " [I] ate the apple.")

Adopting Kuno's features, the matrix subject "Taroo" is assigned a feature specification [+ log I], and the matrix dative NP "Hanako" is assigned a feature specification [+ log II]. pro in the subordinate clause in (29) is only recoverable as the first person. The first person pronoun within the reported logophoric context should be coindexed with the NP which has the feature [+ log I].

(30) Taroo-ga Hanako-ni [pro-ga ringo-o tabe-ta] ka] kik-ta
-NOM -DAT -NOM APPLE-ACC EAT-PAST Q ASK-PAST
(Taroo asked Hanako, "Did [you] eat the apple?)

The pro in (30) is only recoverable as the second person. The second person within the reported logophoric context should be

coindexed with the NP which has the feature [+ log II].

It seems that there is not any basic difference between pro in sentential arguments of logophoric predicates and pro in simple sentences as far as the recovery procedure of its referential content is concerned. Both pros are only recoverable as the first person in declarative sentences. The only difference is the domain of discourse where these pros should pick up their references like any other referential pronoun. The domain of discourse for pro in sentential arguments of logophoric predicates is the secondary discourse which is reported within the primary discourse. In the reported discourse (the secondary discourse), the matrix NP which has the feature [+ log I] is the first person. The domain of discourse for pro in simple sentences is the primary discourse where the speaker is a permanent resident as the first person. The proposed recovery conventions (20ab) seem to need only a small revision.

(31) If pro is not bound by the topic,

a. - assign the first person to pro in a simple declarative sentence.

b. - coindex pro in the declarative sentential argument of a logophoric predicate with the matrix NP which has the feature [+ log I].

c. - assign the second person in a simple interrogative sentence.

d. - coindex pro in the interrogative sentential argument of a logophoric predicate with the matrix NP which has the feature [+ log II].

Although I do not have space to further examine the other

logophoric predicates here, it seems that these recovery conventions are available in a wide range of sentences with predicates of communication and mental experience.

3.3.3.2 Speaker oriented verbs in Japanese

In this section, I will discuss two kinds of speaker oriented verbs in Japanese: one is giving and receiving verbs, and the other is coming and going verbs.

The giving and receiving verbs such as "age" (the speaker gives X to Y), "kure" (X gives Y to the speaker) and "moraw" (the speaker receives X from Y) assign a particular theta role to the speaker. In other words, what kind of thematic role the speaker plays is apart of the lexical meaning of these verbs. With these verbs, the first person singular pronoun is avoidable because who is speaking is obvious.

14

(32)a. pro-ga Taroo-ni chokoreeto-o age-ta
-DAT CHOCOLATE-ACC GIVE-PAST
([I] gave some chocolate to Taroo.)

b. Hanako-ga pro-ni chokoreeto-o kure-ta
-NOM CHOCOLATE-ACC GIVE-PAST
(Hanako gave [me] some chocolate.)

c. pro-ga Hanako-ni chokoreeto-o moraw-ta
-DAT CHOCOLATE-ACC RECEIVE-PAST
([I] received some chocolate from Hanako.)

Each of these verbs can be combined with another verb quite productively to form a complex expression. For example, a verb "yatow' (employ) will form the following complex expressions

(33)a. pro-ga Yamada-sensei-no musuko-o yatotteage-ta
-PROF.-GEN SON-ACC DO A FAVOR
BY EMPLOYING-PAST
([I] kindly employed Prof. Yamada's son.)

b. Yamada-sensei-no musuko-san-ga pro-o yatottekure-ta
-PROF.-GEN SON-MR.-NOM DO A FAVOR
BY EMPLOYING-PAST
(Prof. Yamada's son kindly employed [me].)

c. pro-ga Yamada-sensei-no musuko-san-ni yatottemoraw-ta
-PROF.-GEN SON-MR.-DAT RECEIVE A FAVOR
OF EMPLOYING-PAST
([I] was kindly employed by Prof. Yamada's son.)

If we change these sentences into the interrogative sentences, pro is assigned the second person singular. If we have this kind of structure in a subordinate clause with a logophoric matrix verb, the pro in the subordinate clause can be coindexed with the matrix NP which gets the feature [+ log I].

Another kind of speaker-oriented verb are the verbs, "ik-" (go) and "ku" (come). "Ik", always means going away from the place where the speaker is, and "ku", always means coming to the place where the speaker is. A purpose VP is combined with either of these verbs to form a complex expression.

(34)a. Taroo-ga pro-o settokushi-ni ki-ta
-NOM PERSUADE-DAT/PURPOSE COME-PAST
(Taroo came to persuade [me].)

b. Taroo-ga pro-o settokushi-ni ki-ta noka
-NOM PERSUADE-DAT/PURPOSE COME-PAST COMP/Q
(Did Taroo come to persuade [you].)

c.*Taroo-ga pro-o settokushi-ni ik-ta
-NOM PERSUADE-DAT/PURPOSE GO-PAST
(*Taroo went to persuade.)

pro in (34c) cannot be interpreted as first person because the

sentence says that Taroo went to a place which is far away from the place where the speaker was and the speaker could not be at that place to which Taroo has gone to persuade someone. If there is no established discourse topic which binds the pro, the sentence is not informative.

In these speaker-oriented expressions, the first person pronoun is avoidable.[15] We can have a licitly licensed pro and the recovery conventions (31ac). And furthermore, the lexical content of this kind of verbs encourages us to use the null option. If these constructions occur in the sentential arguments of logophoric predicates which I have just discussed in the preceding part, the conventions (31bd) are available to recover the contents of the used pro.

3.3.4 [+referential -argumental] pro

3.3.4.1 Comp-licensed pro

What kind of NP can possibly have the type of feature, [+referential -argumental]? In other words, in what position is an NP generated without being assigned a theta role? The answer is the position which is outside the locality of a verb which projects the thematic relations to the local argument NPs (= IP). According to the definition of the locality which I gave in Chapter Two (Footnote 6), one legitimate candidate for such a position is the specifier position of CP, which is located above the IP. We have assumed that in Japanese a topic NP can be generated in this position. The topic case is also assumed to be

assigned by the governing head, Comp, in this position. Furthermore, pro is always licit by the formal licensing by Comp, and the recovery convention of discourse topic binding (20c). There is no doubt that pro in this position is [+referential] because it is always bound by the discourse topic. However, the feature [-argumental] might be challenged.

(35) Yamada-sensei-ga okusan-ga deteik-ta
-Prof.-NOM WIFE-NOM LEAVE HOME-PAST
(Speaking of PROF. YAMADA*, his wife left home.)

*with contrastive stress

It is said that Japanese has a double subject construction. (35) is an example of this construction. A topic NP gets an unusual case marking (-ga instead of -wa) when it is contrastive.[16] (35) means that speaking of Prof. Yamada, not the others (not Prof. Suzuki or Prof. Ishii...), his wife has left home. In this construction two NPs are marked by 'ga' which is presumed to be the subject marker. It has been also claimed that the sentence-initial NP also behaves like a subject syntactically. It can trigger the subject honorific and the reflexivisation.[17] In spite of all these subject-like characteristics, the sentence-initial NP in this construction seems never to receive a thematic role. In both of the following examples ((36ab)), PRO can not be controlled by "Yamada-sensei". Furthermore, a tenseless adjunct clause with a PRO can not precede the sentence initial NP as we can see in (36c). This fact shows that the sentence initial NP is still outside the IP, assuming that an adjunct can only adjoin

either IP or VP.

(36)a. Yamada-sensei-ga okusan-ga [PRO damat-te] deteik-ta
-PROF.-NOM WIFE-GA SAYING NOTHING LEAVE-PAST
(Speaking of PROF. YAMADA, [his] wife left home without saying anything.)

b. Yamada-sensei-ga [PRO damat-te] okusan-ga deteik-ta
-PROF.-NOM SAYING NOTHING WIFE-NOM LEAVE-PAST
(Speaking of PROF. YAMADA, [his] wife left home without saying anything)

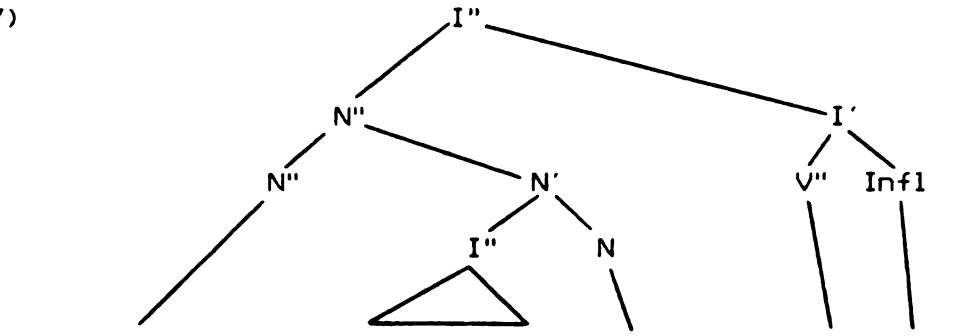
c.*[PRO damat-te] Yamada-sensei-ga okusan-ga deteik-ta
SAYING NOTHING -PROF.-NOM WIFE-NOM LEAVE-PAST

The topic NP seems to have the features, [+referential, -argumental], even though it appears to be a subject in the double subject construction. We have seen that pro is licit in this position by the formal licensing by Comp (19abc) and the recovery convention (20c). The pro in this position should convey the same feature as one the overt NP does. Then we have to conclude that Japanese uses a pro which is [+referential, -argumental]. So-called topic deletion (s. Huang) is in fact made possible only by using this kind of pro.

3.3.4.2 N-licensed pro

The other possible position for a [+referential -argumental] pro is the specifier position of an argument NP.

(37)



[[[Yamada-sensei-no[pro deteik-ta] okusan]]-ga shin-da]
-PROF-GEN LEAVE-PAST WIFE -NOM DIE-PAST
(Prof. Yamada's wife, who had left home, died.)

The NP "Yamada-sensei" is assigned a genitive case by the governing head, N, "okusan". However, it is located too low to be assigned a thematic role by the verb "shin" in the matrix sentence, and it is located too high to be assigned a thematic role by the verb "deteik" in the relative clause. Unless the governing head, "okusan" assigns a thematic role to it, it should be [+referential, -argumental]. But the noun "okusan" (wife) is not likely to project any kind of thematic role. Because the genitive case assigner, N, is one of the pro licensers in Japanese, we should have a null option for this position, whenever the recovery convention is available.

(38)a. pro-no atama-ga ita-i
HEAD-NOM PAINFUL-NONPAST
([My] head aches./ I have a headache.)

b. pro-no atama-ga ita-i no-kai
HEAD-NOM PAINFUL-NONPAST COMP-Q
(Does [your] head ache?/ Do you have a headache?)

The recovery convention (20a) tells you to assign the referential feature of first person singular to the pro in (38a), which is not bound by the discourse topic. The convention (20b) tells you

to assign the referential feature of second person singular to the pro in (38b). If pro is bound by the discourse topic as in (39ab), the convention (20c) is available.

(39) .... Yamada-sensei/i...

a. pro/i-wa pro/i-no atama-ga ita-i
HEAD-NOM PAINFUL-NONPAST
(He/i has a headache.)

b. pro/i-wa pro/i-no atama-ga ita-i no-kai
HEAD-NOM PAINFUL-NONPAST COMP-Q
(Does he/i have a headache?)

That is, having a headache can be first experienced by a person whose head aches. In other words, the first and original report that could be ever made about having a headache is likely to be made by the person who experiences it. If the speaker is not talking about himself or the established topic, he must use an overt NP which refers to whomever he intends to refer to. Whenever the speaker is talking about his own physiological perceptions, he uses pro which is licitly licensed and the content of which is recoverable by the convention. The typical instance of an N-licensed [+referential -argumental] pro is the null genitive pronoun of the argument NP in perception sentences as the followings.

(40)a. pro-no kimochi-ga waru-i
FEELING-NOM BAD-NONPAST
(I feel sick.)

b. pro-no hakike-ga su-ru
NAUSEA-GA DO-NONPAST
(I feel nausea.)

c. pro-no senaka-ga kayu-i
BACK-NOM ITCHING-NONPAST
(I feel itchy in the back.)

d. pro-no memai-ga su-ru
DIZZINESS-NOM DO-NON-PAST
(I feel dizzy.)

e. pro-no onaka-ga ita-i
STOMACH-NOM PAINFUL-NONPAST
(I have a stomach ache.)

f. pro-no nodo-ga kawai-ta
THROAT-NOM GET DRY-PAST
(I am thirsty.)

g. pro-no hana-ga tsumar-u
NOSE-NOM BE STUFFED-NONPAST
(I have a stuffy nose.)

One might argue that the genitive pro in the preceding examples is the instance of the topic pro. An empirical question is whether or not we need a N-licensed pro. There seems to be at least one case where a genitive pro is needed. I mentioned in footnote 19 that we can not have a topic inside a relative clause. Unlike English, Japanese does not have WH-movement into Comp in a relative clause formation. It is simple and highly plausible to postulate that a relative clause in Japanese is an IP with pro in it which is coindexed by the head noun. Let us consider the following sentence, which is a typical topic sentence, in which all the argument positions are filled with lexical NPs.

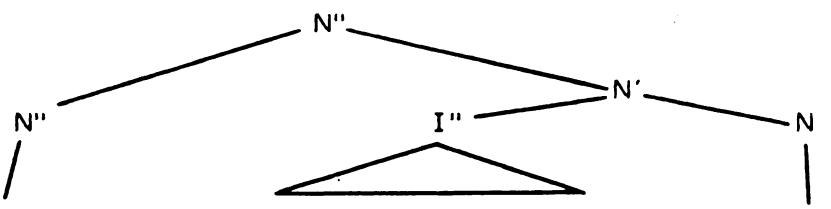
(41)a. Yamada-sensei-wa musuko-ga haabaado-o sotsugyooshi-ta
-PROF.-TOP SON-NOM HARVARD-ACC GRADUATE FROM-PAST
(Speaking of Prof. Yamada, his son graduated from Harvard.)

b.*Yamada-sensei-wa musuko-ga pro-o sotsugyooshi-ta haabaado
PROF.-TOP SON-NOM GRADUATE FROM-PAST HARVARD
(Harvard, which, speaking of Prof. Yamada, his son graduated from)

c.*Yamada-sensei-wa pro-ga haabaado-o sotsugyooshi-ta musuko
-PROF-TOP HARVARD-ACC GRADUATE FROM-PAST SON
(The son, who, speaking of Prof. Yamada, graduated from Harvard.)

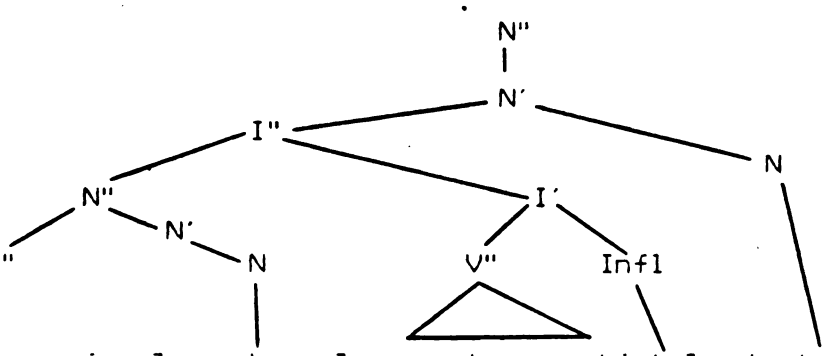
The reason why (41bc) are ungrammatical is straightforward. The NP "Yamada-sensei" can not be assigned a topic case in the relative clause because there is no Comp. There are only two positions in which we can generate a non-argument NP within the relative clause containing NP. One is the specifier position of that (relative clause containing) NP, and the other is the specifier position of one of the argument NPs in the relative clause. (42a) shows the first possibility and (42b) shows the second.

(42)a.



[Yamada-sensei-no [pro haabaado-o sotsugyooshi-ta] musoko]
-PROF.-GEN HARVARD-ACC GRADUATE FROM-PAST SON
(Prof. Yamada's son, who graduated from Harvard)

b.



[[Yamada-sensei-no] musuko-ga] pro sotsugyooshi-ta] haabaado]
-PROF.-GEN SON-NOM GRADUATE FROM-PAST HARVARD
(Harvard, which Prof. Yamada's son graduated from)

Which of these structures should we assume that the following NP is associating with?

(43) Musuko-ga haabaado-o sotsugyooshi-ta Yamada-sensei
(Prof. Yamada, whose son graduated from Harvard)

The fundamental assumption about the relative clause is that it must have a gap which can be construed with the head noun. We have just seen that the Japanese relative clause is not CP but IP. According to these two assumptions, we have to postulate a structure like (42b) for (43).[20]

(44) pro-no musuko-ga haabaado-o sotsugyooshi-ta Yamada-sensei
SON-NOM HARVARD-ACC GRADUATE FROM-PAST -PROF.
(Prof. Yamada, whose son graduated from Harvard)

It seems that in order to have this kind of relative clause containing NP, we need to have an N-licensed genitive pro. This fact strongly suggests that one postulate a genitive pro in the typical topic sentence in which the topic is not coindexed with any of the argument NPs, but is coindexed with the implicit possessor of one of the argument NPs.

(45)a. Zoo/i-wa pro/i-no hana-ga naga-i
ELEPHANT-TOP TRUNK-NOM LONG-NONPAST
(Speaking of the elephant, its trunk is long.)

b. JPN101/i-wa pro/i-no sekushon3-ga yoku deki-ru
-TOP SECTION 3-NOM WELL ABLE-NONPAST
(Speaking of JAP101, the section 3 is doing well.)

c. Taroo/i-wa pro/i-no inu-ga kuruma-ni hikare-ta
-TOP DOG-NOM CAR-DAT BE RUN OVER-PAST
(Speaking of Taroo, his dog was run over by a car.)

d. Yamada-sensei/i-wa pro/i-no okusan-ga deteik-ta
-PROF.-TOP WIFE-GA LEAVE HOME-PAST
(Speaking of Prof. Yamada, his wife left home.)

If the topic NP can not be the possessor of any of the lexical argument NPs, the sentence is ungrammatical.

(45)a.*Yama-wa Taroo-ga okashi-o tabe-ta
MOUNTAIN-TOP -NOM CANDY-ACC EAT-PAST

b.*Umi-wa te-ga naga-i
OCEAN-TOP ARM-NOM BE LONG-NONPAST

3.3.4.3 Summary

Through the preceding discussion, I came to the conclusion that Japanese uses a [+referential -argumental] pro, which was excluded by Rizzi in his discussion. I discussed two kinds of instances of this pro: one is implicit topic, and the other is implicit genitive pronoun of an argument NP.

The implicit topic is an instance of a pro which is formally licensed by Comp in the specifier position of CP. The content of this pro is recoverable by the proposed recovery convention (20c). So-called topic deletion or zero topic can be viwed as a consequence of a use of this syntactic mechanism. This familiar phenomenon in the pragmatics has been given a syntactic treatment by the theory of pro.

The implicit genitive pronoun is an instance of a pro in the specifier position of NP which is formally licensed by N. A typical occasion when we use this pro is a sentence of the physiological perception in which usually a body part occurs in the argument position. The first person genitive pronoun of this

body part in a statement (= "watashi-no") and the second person genitive pronoun in a question (= "anata-no") are recoverable by the conventions (20ab). Another important use of this pro is one in the relative clause in which a genitive NP is relativized. I also claimed that the same kind of pro is being used in a typical topic sentence in which the topic is the possessor of one of the argument NPs.

3.4 Conclusion

I have shown that we can accomodate Rizzi's theory of pro to account for zero pronoun phenomena in Japanese. In other words, I have shown that the [-anaphoric +pronominal] empty category, pro, and its theory can provide an unified explanation of the null subject and null object (including null expletives) in Romance languages and the zero pronouns (maybe also null expletives) in Japanese, which, unlike the Romance languages does not have any agreement system.

I have hypothesized that Japanese has four pro licensers: Comp, Infl, V and N. I have proposed the recovery conventions (20c) and (31abcd). Analogous to Rizzi's convention (41)(= (12)), (20c) allows pro to have a full range of referentiality by being bound by the discourse topic. Whereas Rizzi's (43) (= (13)) assigns the arbitrary interpretation of pro, my (31abcd) assigns the first or second person interpretation of pro. These are analogous because in either case, the intrinsic nature of these

three kinds of pronouns such that they do not have an antecedent NP, is conventionalized.

I have discussed four types of pro:

[-referential -argumental]
[-referential +argumental]
[+referential -argumental]
[+referential +argumental]

I have mentioned the possibility that Japanese has null expletives, which in fact are instances of [-referential -argumental] pro. We have seen that Japanese weather (and time) predicates take null subjects, which are instances of [-referential +argumental] pro. Our observation was that a [-referential] pronominal can not be overt in Japanese. I have showed that [+referential +argumental] pro in sentential arguments of logophoric predicates can also be recovered by the same kind of recovery convention as one I tentatively proposed for pro in simple sentences. I also discussed the speaker-oriented verbs in Japanese which enlarge the area where [+referential +argumental] pro can be used. Finally I have claimed that [+referential -argumental] pro is licensed in the specifier positions of CP and NP by Comp and N respectively. I pointed out that [+referential -argumental] pro in topic position plays a crucial role in so-called "topic NP deletion" (s. footnote 3 of this Chapter).

Although Japanese does not have any agreement system, it seems to allow pro as a referential definite pronoun because it can have a [+referential -argumental] pro which can be recovered

by the discourse binding convention (20c). Besides this topic binding, there seems to be a general principle which is functioning in Japanese, that is "Avoid the first and second person pronoun, if possible." And in fact, there are many speaker-oriented devices where we easily avoid the pronouns without failing to be informative. As far as Japanese is concerned, it seems certain that the universal principle "Avoid Pronoun" proposed by Chomsky is functioning in the grammar. If we treat the first person in a discourse-initial declarative sentence and the second person in a discourse-initial interrogative sentence as default discourse topics, then, so-called topic NP deletion (zero topic) and the general principle I proposed above can be collapsed into one language specific subprinciple of Chomsky's universal principle.

(46) Avoid pronoun referring to the established topic.

It seems that Japanese speakers observe these principles in the conversation and try to avoid pronoun by using pro whenever it can be licensed and its content is recoverable. Because the resourses which allow us to do so are abundant, it might look as if we avoid pronouns in an unprincipled way. But as we have just seen, we do in fact avoid pronouns in a very principled way.

Footnotes to Chapter Three

1. Japanese pronouns are the following:

watashi/first person singular,
watashitachi/first person plural,
anata/second person singular,
anatatachi/second person plural,
kare/third person singular masculine,
kanojo/third person singular feminine,
karera/third person plural,
kanojora/third person plural feminine.

Unlike the English pronouns, these are not case-marked in the lexicon. They are subject to the case-assignment in the syntax like any other noun. If there is no case-assigning governing head, they will not be case-marked.

(i) Sore-wa watashi des-u.
IT-TOP 1.SG. BE-NON-PAST
(It is me.)

Unlike any other noun in Japanese, pronouns are obligatorily number-marked. In third person, they are also gender-marked. Although Rizzi mentioned a personal communication with Mamoru Saito (1986, p.545), who said that person number features do not seem to play any role in the grammar in Japanese, this does not seem to be true.

These pronouns are strictly for human beings.

2. Not only proper nouns but also common nouns can be used anaphorically in Japanese.

(i) Sannin-no otoko-ga mise-ni haittekita
THREE-GEN MAN-NOM SHOP-DAT COME IN-PAST
Otokotachi-wa totsuzen kenjuu-o dashi-ta
MEN-TOP SUDDENLY GUN-ACC TAKE OUT-PAST
(Three men came into the shop. They suddenly took out the guns.)

If a common noun is used anaphorically, it must be munber-marked.

3. Tsao (1977) has proposed a "discourse-oriented vs. sentence-oriented " parameter which distinguishes languages like Chinese from languages like English. A distinctive property of discourse-oriented languages is that they have a rule of "Topic NP Deletion." Huang (1984) cited Tsao, and he formally identified the deleted topic as a zero topic binding a variable. Although I will not take either position, a similar kind of phenomenon can be observed in Japanese.

4. Evidence for this has been provided by Raposo (1984) concerning the discourse-bound null operator in Portuguese. (Rizzi, p. 513)

5. Taraldson's generalizaion. Taraldson (1978) first made a generalization that the possibility of pro drop in a language depends on a rich agreement system in the inflectional morphology of that language.

6. Rizzi's conclusion that case-assignment is crucial in pro licensing is based on the observed fact that the arbitrary null object of Italian can not occur in passive sentences. (for

detailed discussion, p.523)

7. "'direct Theta-role' is meant to single out the direct object Theta-role, the only Theta-role that a verb directly Theta-marks for (not compositionally, or through the selection of an autonomous Theta-marker, as presumably happens for subject and prepositional object Theta-roles, respectively)." (Rizzi, p.508)

8. Rizzi adopted Borer's claim (1984) that for certain affixation processes, there are rules which can apply freely in the lexicon or in the syntax.

9. The other possible case of disassociation would be a case in which "understood arguments" do not involve pro. English understood objects with arbitrary references would be such a case.

10. An argumenthood test for a pro which was suggested by Rizzi in his lecture (LSA Summer Institute, 1986) is a test to see if the pro can be a controller of PRO. If it can be a controller of PRO, it has the feature [+argumental], otherwise, [-argumental].

11. Rizzi has observed that in the position where Italian pro cannot receive the person specification through head binding by weak Agr, pro is restricted to nonreferential uses. This lead him to postulate the following principle.

(i) An NP is referential only if it has the specification of person and number. (Rizzi's (95), p.543)

He has also observed that the person specification is not the decisive factor for the argumenthood of pro. This lead him to postulate another principle.

(ii) An NP is argumental only if it has the specification of number. (Rizzi's (96), p.543)

12. The time predicates in Japanese take also null subjects.

(i) ... hachiji da
8 O'LOCK BE
(It is 8 O'clock.)

(ii)a. ... oso-i
LATE-NON-PAST
(It is late.)

b. Funabin-wa oso-i
SURFACE MAIL-TOP SLOW-NONPAST
(Surface mail is slow.)

The stative verb "oso" has two different meanings. Only when it occurs with null subject, does it serve as a time predicate.

13. The notion of logophoricity was introduced in studies of African languages (Hagege (1974), Clements (1975)) in which pronouns used in the sentential arguments of certain predicates of communication and mental arguments are morphologically differentiated from other pronouns. Those pronouns are called "logophoric pronous". The logophoric pronouns refer to the matrix NPs "whose speech, thoughts, feelings, or general state of consciousness are reported."(Clements (1975) p.141). It has been

claimed by Kuno (1986) that this notion is very important in accounting for anaphora in Japanese. Very lately, Sells (1987) has also discussed aspects of logophoricity.

14. The concept of speaker in this kind of verb could be extended to the in-group people, assuming that they are sharing the same perspective.

15. Perhaps the most intricate mechanism of speaker orientation would be one which is used in the honorific system. Roughly speaking, the honorific system is a system in which the speaker verbally expresses his realization of (from his point of view) the social relationships among the individuals who are directly or indirectly participating in the conversation. There are two types of honorific expressions: one is a humble expression, the other is an exalting expression. If the speaker realizes that the addressee is in higher status than he in society, or simply that the addressee is older and supposed to have been contributing to the world in various aspects much more than the speaker has, the speaker might want to use the humble form when he talks about himself, or the exalting form when he talks about that respected person. In either case, the subject or the topic of the sentence would be made obvious by using a particular honorific form. Because we do not need to use an overt personal pronoun in this system, if one is used, it must be a special case. This special case might turn out to be rude in this kind of extremely polite

situation. Japanese has many devices of speaker orientation, which certainly provide more occasions to use pro than the languages which do not employ such devices.

16. Kuno (1973, p.71) proposed a subjectivization transformation by which the first subject NP is derived from the genitive NP of the second subject. (s. footnote 1 of Chapter Two).

17. Example for the reflexivization:

(i)a. Yamada-sensei-ga musuko-san-ga jibun-no kaisha-no
-PROF-NOM SON-NOM SELF-GEN COMPANY-GEN
okane-o ooryooshi-ta
MONEY-ACC EMBEZZLE-PAST
(Speaking of Prof. Yamada, his son embezzled the money of his own company.)

b. Yamada-sensei-no musuko-san-ga jibun-no kaisha-no
-PROF-GEN SON-NOM SELF-GEN COMPANY-GEN
okane-o ooryooshi-ta
MONEY-ACC EMBEZZLE-PAST
(Prof. Yamada's son embezzled the money of his own company.)

In (i)a optional coreference between "Yamada-sensei" and "jibun" is possible, but it is not possible in (i)b.

Example of the subject honorific:

(ii)a. Yamada-sensei-ga kata-ga okorides-u
-PROF.-NOM SHOULDERS-NOM STIFF-NONPAST[+HONORIFIC]
(Prof. Yamada has stiff shoulders.)

b.*Yamada-sensei-no kata-ga okoridesu
-GEN

Yamada-sensei as a genitive NP can not trigger the subject honorific.

18. Chomsky assumes the following principle concerning adjunctions: (1986, p.6)

(i) Adjunction is possible only to a maximal projection (hence, X") that is a nonargument.

(For relevant argument, see footnote 19 of this Chapter)

19. I assume that the Japanese relative clause is an IP which is in the complement position of an NP. This assumption is based on the following facts:

The fact that a topic-marked NP never occurs in a relative clause in Japanese. (see p.22)

(i) [[*Taroo-wa pro/i kaw-ta] hon/i]
-TOP BUY-PAST BOOK

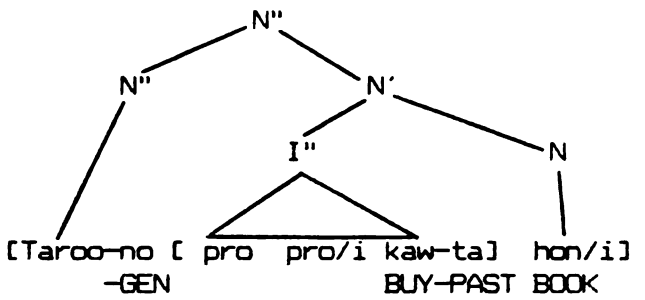
And the fact that the subject NP in a relative clause can be also marked as genitive.

(ii)a. Taroo-ga pro/i kaw-ta hon/i
-NOM BUY-PAST BOOK
(the book which Taroo bought)

b. Taroo-no pro/i kaw-ta hon/i
-NOM BUY-PAST BOOK
(the book which Taroo bought)

I assume that "Taroo" in (ii)b is in the specifier position of the whole relative clause containing NP and being governed and case-marked by the head noun "hon" as in (iii).

(iii)



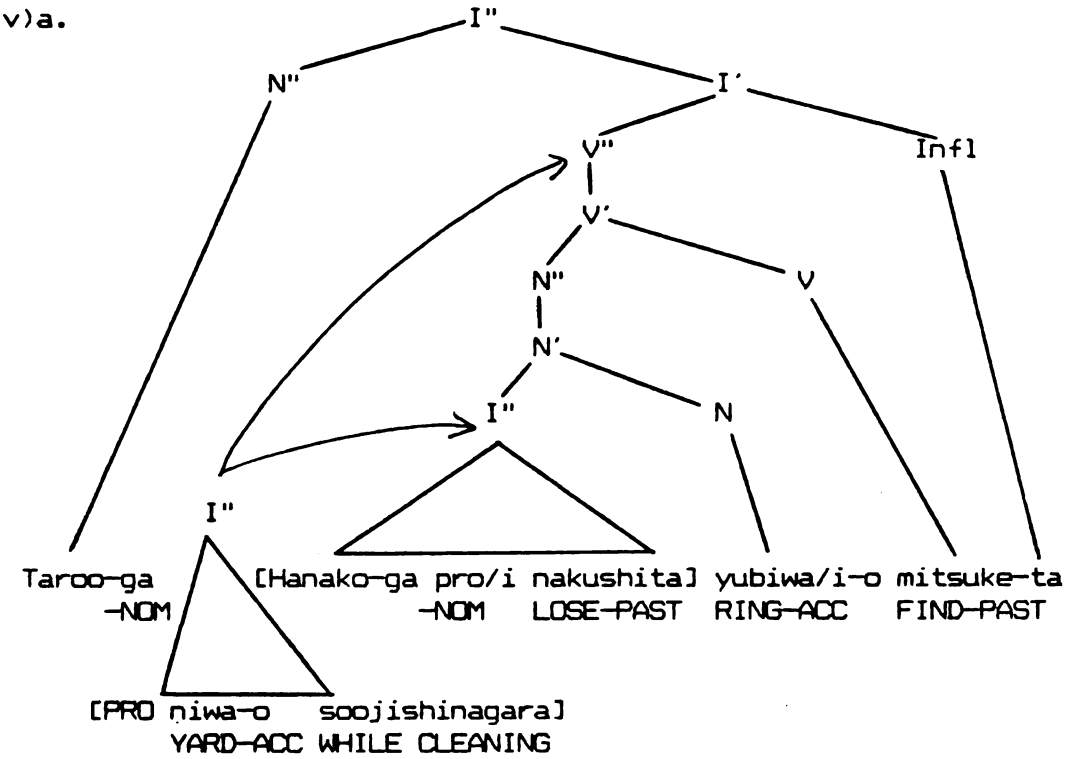
The following pair of sentences seems to provide evidence for this structure.

(iv)a. Taroo-ga [PRO niwa-o soojishinagara] Hanako-ga
-NOM YARD-ACC WHILE CLEANING -NOM
pro/i nakushi-ta yubiwa/i-o mitsuke-ta
LOSE-PAST RING-ACC FIND-PAST
(Taroo found the ring which Hanako had lost while cleaning the yard.)

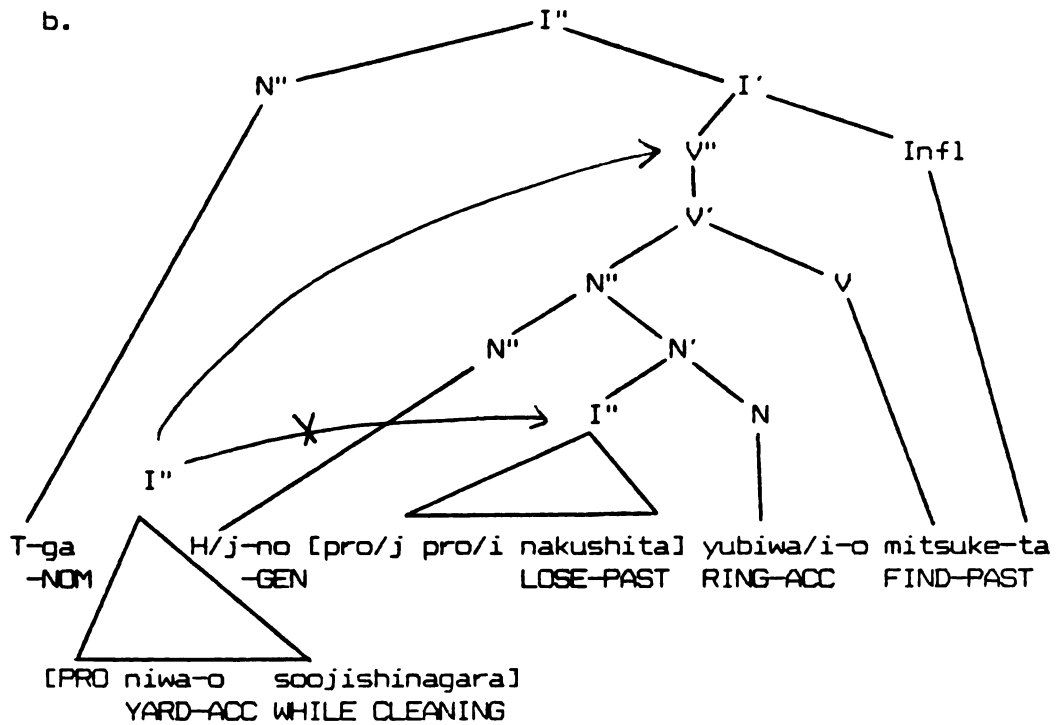
b. Taroo-ga [PRO niwa-o soojishinagara] Hanako/j-no
-NOM YARD-ACC WHILE CLEANING -GEN
pro/j pro/i nakushi-ta yubiwa/i-o mitsuke-ta
LOSE-PAST RING-ACC FIND-PAST
(While cleaning the yard, Taroo found the ring Hanako had lost.)

"Soojishinagara" (while cleaning) takes as subject control PRO. (iv)a is ambiguous just like the English translation, because there are two possible sites for the adjunct clause: one is the VP of the matrix clause, the other is IP of the embedded clasue. In the first interpretation, PRO must be controlled by the matrix subject, and in the second interpretation, PRO must be controlled by the embedded subject. However, (iv)b is not ambiguous. PRO can be controlled only by the matrix subject. This would be easily accounted for from the assumption I made. Because the genitive NP is outside the relative clause, the IP adjunct is not available on the left of that genitive NP.

(v)a.



b.



20. In footnote 1 of Chapter Two, I mentioned the semantic

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diffence between the following sentences.

(i)a. Yamada-sensei-wa musume-san-ga kekkonshi-ta
-PROF-TOP DAUGHTER-NOM MARRY-PAST
(Speaking of Prof. Yamada, his daughter was married.)

b. Yamada-sensei-no musume-san-ga kekkonshi-ta
-PROF-GEN DAUGHTER-NOM MARRY-PAST
(Prof. Yamada's daughter was married.)

Whereas Prof. Yamada must be alive in (i)a, he might not be alive in (i)b. The corresponding relativised NP does not seem to have such a presupposition as one (i)a has.

(ii) Kotoshi musume-san-ga kekkonshi-ta Yamada-sensei-wa
THIS YEAR DAUGHTER-NOM MARRY-PAST -PROF.-TOP
sannen-mae gan-de nakunar-ta
THREE YEARS-BEFORE CANCER-INSTR. PASS AWAY-PAST
(Prof. Yamada, whose daughter was married this year, died of cancer three years ago.)

More evidence is the resumptive pronoun which can occur in a relative clause.

(iii)a. Daikusan-ga Yamada-sensei-no musume-san-to kekkonshi-ta
CARPENTER-NOM -PROF.-GEN DAUGHTER-WITH MARRY-PAST
(A carpenter was married to Prof. Yamada's daughter.)

b. Daikusan-ga musume-san-to kekkonshi-ta Yamada-sensei-wa
CARPENTER-NOM DAUGHTER-WITH MARRY-PAST -PROF.-TOP
gakkarishi-ta
BE DISAPPOINTED-PAST
(Prof. Yamada, to whose daughter a carpenter was married, was disappointed.)

c. Daikusan-ga kare-no musume-san-to kekkonshi-ta
CARPENTER-NOM HIS DAUGHTER-WITH MARRY-PAST
Yamada-sensei-wa gakkarish-ta
-PROF.-TOP BE DISAPPOINTED-PAST

(iii)b and (iii)c are synonymous. Because of the distance to the head noun, the resumptive strategy might be allowed in (iii)c.

Chapter Four
Pronominal Categories and a Parametric Approach

In Chapter Three, I have discussed four kinds of interpretations of pro which can be formally licensed in Japanese. I have also discussed the recovery conventions by which we can recover the contents of pro. A language specific distribution of pro and its recovery procedures have been discussed. The next task to be done would be to bridge the gap between UG and particular languages. The theory of parameters has been introduced (Chomsky, 1981) exactly for this purpose. I will propose a parametric approach to pro in this chapter. In the first half of this chapter, I will try to identify the relevant parameter for pro.[1] There are two concerns. One is what the proper target for a child's setting of parameters is. In other words, what part of the grammar is associated with the values of the parameter? The other is how the Universal Principle, "Avoid Pronoun" (henceforth APP) interacts with this parameter. In the last half of this chapter, I will formalize the identified parameter.

4.1 Proper target of parameter setting

Wexler & Manzini (1987) discussed the details of a parametric system from the child acquisition point of view. In their theory they adopt the lexical parameterization hypothesis (Borer, 1984).

(1) (= (37) in W&M)

Lexical Parameterization Hypothesis

Values of a parameter are associated not with particular grammars but with particular lexical items.

The idea is that the children will not fix the value by looking at the whole grammar, which in fact would never happen, but they will fix the value by looking at a particular lexical item. They introduce an example from Chinese in their footnote 9 (P.424). Chinese has two reflexives with different governing categories, a long-distance reflexive "ziji" and a local reflexive "ta ziji." Their argument is that in such a case, a learner has to fix a different value for each lexical item, even though they belong to the same class.[2] It is plausible that the children fix the value relevant to the reflexives by looking at the reflexives themselves rather than looking at the whole grammar. However, there seems to be one problem. According to their theory, UG provides parametric values for a particular lexical item of a particular language. In other words, one value of the relevant parameter is set on one lexical item A of a specific language, and another value of the same parameter may be set on another lexical item B. This is a slightly different view from one which holds that UG has by itself a parametric schema with values to be fixed, and a child who is born with UG fixes the values through his linguistic experience to generate a core grammar of the language he is exposed to. In the latter view, the values of the parameter should be associated with a part of UG, but not with a part of a particular language.

Rizzi(1986) parameterized the formal licensing component of his theory of pro. Here the values of the parameter associate with a syntactic category, a case-assigning governing head. According to his theory, the pro-drop parameter is the pro-licensing parameter which has the following values:

value 1 --> { }

value 2 --> {L1}

value 3 --> {L1, L2,}

value 4 --> {L1, L2, L3}

.

.

.

value n --> {L1, L2, ...Ln-1} Li=Licenser i

Based on positive evidence, the children would be able to fix the value of this parameter. Suppose L1 is Infl, and L2 is V child who is being exposed to Italian is likely to have enough evidence to choose the value 3. In other words, he learns that he can use pro in the Infl-governed and V-governed positions. However, what he actually learns seems to be more than this. He also acquires successfully the knowledge that pro is obligatory in Italian, if it is [-referential]. Among the three interpretations of pro which Rizzi has considered, [+referential +argumental] pro is different from the other two, [-referential +argumental] pro and [-referential -argumental] pro. The former is an optional pro and the latter are obligatory pros. Rizzi's parameteric system is not capable of making this distinction.

I pointed out that the values of the parameters should associate with a part of UG, but not with a part of a particular language. I have found the Lexical Parameterization Hypothesis (W&M, 1987) implausible for this theoretical reason. Although Rizzi's parameter has values which associate with a part of UG, the members of the categorial component of the syntax, it seems also implausible because the value set for Italian does not yield what an Italian child can actually acquire. If it is the case that Italian children are able to learn that the [-referential] pro is obligatory in their language, they should be able to fix some value for this feature of pro. A lexical item in a particular language could not be in UG. However, distinctive features of a lexical class might be registered in the lexicon of UG. These considerations lead me to the conclusion that the values of the parameter relevant to pro associate with the distinctive features of a lexical class in the lexicon, the [-anaphoric +pronominal] NP:

[+/- referential],
[+/- argumental].

4.2 [-anaphoric +pronominal] NP and APP

I have concluded in Chapter Three that Japanese observes the APP, by employing a language specific version of this universal principle. In fact, we could even view the whole phenomenon involving pro as an operation of this principle.

We have seen that the [-anaphoric +pronominal] NP can be

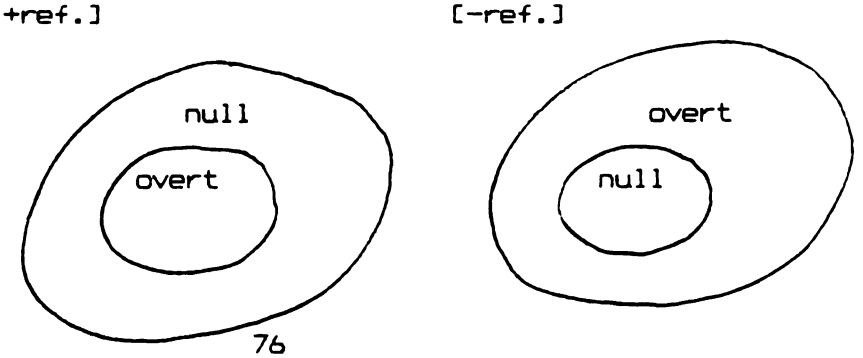
interpreted as four different types.

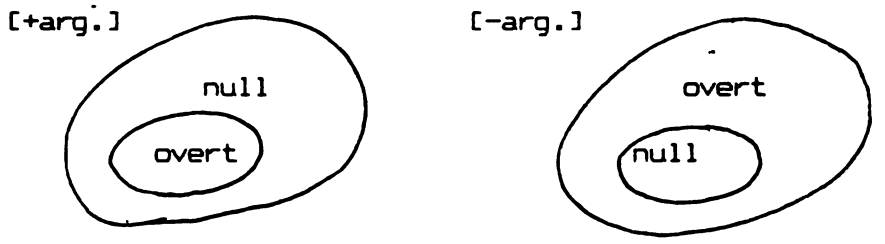
(2) [-anaphoric +pronominal]:

[+referential +argumental]
[+referential -argumental]
[-referential +argumental]
[-referential -argumental]

The first interaction between the APP and this lexical class would result in an EC (pro) corresponding to its overt category. The next working hypothesis would be that, once an EC is licensed, the EC is more likely to associate with the minus features, [-referential] and [-argumental] than the plus features. This hypothesis seems to make a number of correct predictions. There is no natural language which employs only the empty categories of this class. There is no language which employs only [+referential +argumental] pro, whereas there are some languages which employ only [-referential -argumental] pro. There is no language such that it has pro, but does not have [-referential -argumental] pro. If this hypothesis is correct, we can further define a natural unmarked/marked hierarchy for this lexical class. [+ref. +arg. +overt] and [-ref. -arg. -overt] are unmarked, [+ref. +arg. -overt] and [-ref. -arg. +overt] are marked cases.[3]

(3)





UG provides a natural unmarked/marked hierarchy for this class as a consequence of an interaction between the APP and the relevant lexical class, the [-anaphoric +pronominal] NP. Once UG defines the unmarked/marked hierarchy, first, UG tells all the languages which are licensed to have pro to employ the unmarked values, and then, provides an optional choice of the marked value. If the language only employs the unmarked value, that value is obligatory in that language. If the language employs also the marked value, in other words, that language has some device to employ the unmarked/marked distinction, the marked value is optional in that language.

The following chart illustrates a parametric schema of the distribution of the empty and overt categories of the [-anaphoric +pronominal] NP.

(4)

	unmarked	marked
[+ref.]	must be overt	can be null
[+arg.]	must be overt	can be null
[-ref.]	must be null	can be overt
[-arg.]	must be null	can be overt

It would be easy for an Italian child to learn that the [-

referential] pronoun must be null because it is obvious that Italian is employing the unmarked case from the lack of evidence for an overt [-referential] pronoun. It would be even easier for him to learn that the [+referential] null pronoun is optional based on the positive evidence such that [+referential] pronoun is sometimes null and sometimes not.

4.3 The pro drop parameter

In the previous section, I have shown that the APP interracts with a particular lexical class in the lexicon of UG, the [-anaphoric +pronominal] NP, and prepared a basic parametric schema. In the standard theory, the pro drop parameter has been reduced to the question, if the language has a rich agreement or not. In my approach, the pro drop parameter is reduced to the question: what kind of pro could be allowed in one language and not be allowed in another. This can be determined by choosing the marked or unmarked value for each distinctive feature of the lexical class, [-anaphoric +pronominal] NP.

My parametric approach to pro consists of two components: one is the pro Licensing Principle, and the other is the pro Drop Parameters. We seem to need the pro Licensing Principle because some languages seem never to interact with the APP to the extent that a [-anaphoric +pronominal] EC is licensed in those languages.

(5) Pro Licensing Principle

> If and only if it is not the case that the language has only a [- referential -argumental] overt pronoun, then that language will be licensed to have pro.

According to this principle, Italian, Japanese, German, and Icelandic are all licensed to have pro. Because English has an overt [-ref. -arg.] pronoun, pro is not licensed in English. Once pro is licensed, the next step is to determine what kind of pro is to be employed by each of the pro licensed languages. This will be determined by choosing either the marked or the unmarked case for each of the distinctive features.

(6) Interpretive Parameters

a. [+ref.] must be overt.	Yes —> German, Icelandic No ([+ ref.] can be null.) —> Italian, Japanese
b. [+arg.] must be overt.	Yes —> German No ([+arg.] can be null.) —> Italian, Icelandic, Japanese
c. [-ref.] must be null.	Yes —> Italian, Icelandic, Japanese No ([-ref.] can be overt.) —> German
d. [-arg.] must be null.	Yes —> Italian, Icelandic No ([-arg.] can be overt.) —> Japanese, German

It seems quite easy for a child to fix the value. If he does not have a positive evidence for the marked case such as [+ref.] pro, [+arg] pro, [-ref.] overt pronoun or [-arg.] overt pronoun, he will choose the unmarked value. Furthermore, as we can see, each language has a different set of values.

(7)

	a.	b.	c.	d.
German	Yes	Yes	No	No
Italian	No	No	Yes	Yes
Icelandic	Yes	No	Yes	Yes
Japanese	No	No	Yes	No

Once a language has fixed a value for each of the four features independently, then that language can tell what kind of pronominal, overt or null, can be allowed in that language.

(8) German

[+ref.] must be overt.
[+arg.] must be overt.
[-ref.] can be overt.
[-arg.] can be overt.

[+ref. +arg.] overt
[-ref. +arg.] overt
[+ref. -arg.] overt/null
[-ref. -arg.] overt/null

Italian

[+ref.] can be null.
[+arg.] can be null.
[-ref.] must be null.
[-arg.] must be null.

[+ref. +arg.] overt/null
[-ref. +arg.] null
[+ref. -arg.] null
[-ref. -arg.] null

Icelandic

[+ref.] must be overt.
[+arg.] can be null.
[-ref.] must be null.
[-arg.] must be null.

[+ref. +arg.] overt
[-ref. +arg.] null
*[+ref. -arg.]
[-ref. -arg.] null

Japanese

[+ref.] can be null.
[+arg.] can be null.
[-ref.] must be null.
[-arg.] can be overt.

[+ref. +arg.] overt/null
[-ref. +arg.] null
[+ref. -arg.] overt/null
[-ref. -arg.] null

Interestingly, not only Japanese but also German allows an overt [+ref. -arg.] pronominal. According to the chosen values, a [+ref. -arg.] interpretation in Icelandic is contradictory because in this language, [+ref.] must be overt, and [-arg] must be null.

I have made no attempt to further develop this parametric system in this study. I could only present a naive model of a parametric approach. This naive model, however, has been constructed on a fairly new idea, which I believe is also plausible, that a parameteric schema of the distribution of pro is prepared within UG as a consequence of the interaction between one of the UPs, the APP and the pronominal class in the lexicon of UG.

4.4 Conclusion

Rizzi's theory of pro provides a common denominator for the two apparently different phenomena, the pro drop phenomena in Romance languages, and the zero pronoun phenomena in Japanese. These phenomena can be taken to be the manifestation of the [-anaphoric +pronominal] EC, i.e. pro. Another important observation about this category is that it has more than one interpretation. Pro can be used as not only a referential

definite pronoun, or arbitrary pronoun, but also an expletive.

In Chapter Three, I showed that Japanese zero pronoun can be accounted for by Rizzi's theory of pro. By examining various uses of pro in Japanese, I pointed out that Japanese optionally uses the [+referential -argumental] pro, which was excluded from the discussion by Rizzi. I pointed out that this kind of pro typically occurs in topic position. Topic NP deletion is in fact the consequence of the use of this kind of pro.

My speculation has started from the very much surface phenomena indicating that Japanese uses phonetically zero forms of pronoun. Once we identified these zero forms as instances of pro, I could look further into the feature differences of pro in terms of referentiality and argumenthood. We found out that in Japanese the [-referential] pronominal must be null, and that the [-argumental] pronominal can be overt, if it is [+referential]. In Italian, both the [-referential] and the [-argumental] pronominal must be null.

The parametric difference between Japanese and Italian is no longer a matter of agreement system, but simply of the feature difference of pro each language allows. In other words the pro drop parameter is not to be fixed according to whether or not the language has an agreement system, but according to whether or not the [-argumental] pronominal can be overt or must be null. In Italian the [-argumental] pronominal must be null, whereas in Japanese it can be overt if it occurs with the feature

[+referential].

In this chapter, I presented a parametric approach to the distinctive features of the pronominal class. I showed how the parametric choices (values) are prepared in the lexicon component of UG as a consequence of the interaction between the APP and the pronominal class which has an entry in the lexicon with its distinctive features. According to my approach, UG provides each distinctive feature with an intrinsic markedness hierarchy in terms of [+/-overt]. In this intrinsic markedness hierarchy, the unmarked values are intrinsically defined, and the marked values are optionally to be employed to create the unmarked/marked distinction. It seems that the markedness in UG has been treated in a different way from that in a particular language. In the first case, it is understood in such a way that some language employs the marked value, and some language employs the unmarked value. In other words, each language picks up either of the two values which are supposed to generate two disjoint sets of sentences. If UG provides such two values to be chosen, there is no reason to call one "marked" and the other "unmarked". The markedness in a language specific grammar is understood in such a way that a speaker employs the marked value to signal something unusual which could not have been conveyed by the unmarked value. In this case, the sentences which can be generated only by the unmarked value are the subset of the sentences which can be generated by employing the both values, i.e., the 'unmarked/marked' distinction. The markedness hierarchy which I

proposed in the parametric model for the pronominal class is of the latter kind.

If the distribution of pro can be viewed in terms of the feature difference of pro which is allowed in one language, and not allowed in another, could we dispense the formal licensing? If we know already what kind of pro is allowed in the language, the distribution of that pro can be well defined by the Case theory and the Theta theory. Then, the formal licensing might be vacuous or redundant. I will conclude this study, leaving this question out as well as many others which I could not consider or even mention.

Footnotes to Chapter Four

1. It seems that linguists have been trying to parameterize the facts which they found in cross-linguistic research rather than identify the parameters. In other words they have been trying to construct the parameter at the most diversified level of grammar. In the early research on parameters, Tsau (1977) proposed a typological parameter, the "discourse-oriented vs. sentence-oriented" parameter, which was recently adopted by Huang (1984). He pointed out a clustering of distinctive properties for a language to be a "discourse-oriented" language: a discourse-oriented language has a rule of "Topic NP Deletion", but it does not have pleonastic elements like 'it' and 'there'. However, it is not always true that a language which does not have pleonastic elements has a rule of "Topic NP Deletion" (Italian, for example, does not have pleonastic elements, but it seems not to have a rule of "Topic NP Deletion"). It does not seem right to directly parameterize the typological differences among languages. At the level deep inside UG where the languages are determined by fixing their values of the parameters one way or another, the differences between values must be insignificant. However, this small difference will result in significant consequences on the surface level where the languages are fully diversified. Before parameterizing the most diversified level of grammar as Tsau and Huang did, we should work on the individual phenomenon like "Topic NP Deletion" or pleonastic elements and try to identify the common denominator which can prepare a parametric scheme in

UG with the interraction of the UPs.

2. According to their theory, even if all the members of the same class associate with one particular value, the children will have to fix the same value over and over again. This seems to be odd because presumably, parameter setting results in greater knowledge than might be expected from induction on the data.

3. I used here the feature [+/- overt] for formal simplicity. I will not use this feature beyond that purpose because this feature does not seem to be a distinctive of the lexical class at issue.

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