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"NIC Extensions"*

Yoshihisa Kitagawa

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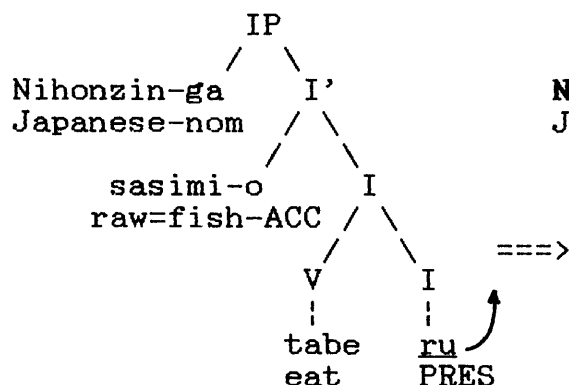
1. Introduction:

This paper consists of two parts. In the first part, I will sketch out what I will call the "Internal Subject Analysis" of Japanese and English phrase structure, which I have argued for in my doctoral dissertation (Kitagawa (1986)). In the second part, I will point out and explore the new insight the Internal Subject Analysis brings into the theory of Binding.

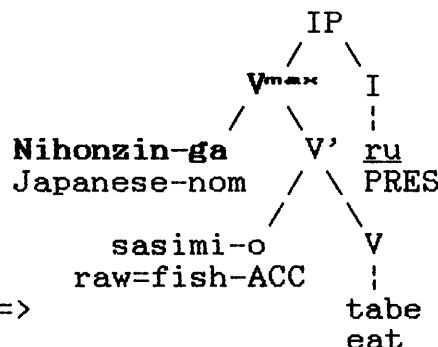
2. Internal Subject Analysis

The major claim in the Internal Subject Analysis is that the subject of a sentence in Japanese and English is located within the projection of a verbal or other type of predicate at the level of Logical Form.

It was proposed in Kitagawa (Ibid.), for example, that a D-structure and S-structure representation of a Japanese sentence as in (1a) is mapped onto an LF-representation in (1b) via application of Move-alpha:¹

(1) a. *D-/S-str*:

b.

LF:

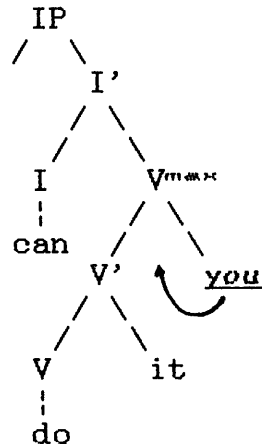
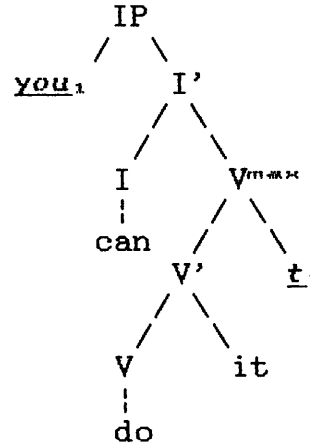
In this analysis, the verbal tense morpheme *ru* is raised out of the base-generated complex predicate *tabe-ru* (eat-PRES) at LF in order to satisfy its syntactic c-selection, i.e., in order to take a V^{max} as its complement. After this movement, the categorial feature of the newly-derived verbal head *tabe* (eat) percolates up, and the subject of a sentence ends up being located within the projection of the newly-derived V^{max} .

This analysis provides us with at least two desirable consequences. First, subjects and objects can now be uniformly θ -marked under government by a lexical head within its maximal projection. Second, we can now explain, without any stipulation, why Japanese does not exhibit an ECP violation when a subject is extracted at LF out of an island (cf. Huang (1982)). Note that the subject position in (1b) is lexically-governed by the verbal head.

On the other hand, it has been argued independently by Kitagawa (1986), Kuroda (1986), Koopman-Sportiche (1986), and Fukui (1981) that the base-generated V^{max} -internal subject in English as in (2a) is raised and placed under the IP node at S-structure as in (2b), due to the obligatory agreement required by the INFL and/or the Case Filter. Note that this subject raising leaves a trace behind in the V^{max} -internal subject position:

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(2) a. *D-str*:*you* = T-subjectb. *S-str/LF*:*you*₁ = I-subject
*t*₁ = T-subject

In order to avoid confusion, I will follow and extend Borer's (1986) terminology, and refer to the subject of IP as "Inflectional subject", or "I-subject" for short, and the subject of V^{max} and A^{max} as "Thematic subject", or "T-subject" for short. Thus, the S-structure subject *you* in (2b) will be called an I-subject and the base-generated subject *you* in (2a) as well as the trace in (2b) will be called T-subjects.

As is clear from these diagrams, I have also proposed that English has a "VOS" underlying order. A piece of support for this proposal comes from the argument that the so-called extraposed sentential subjects as in (3) are surface realization of the base-generated sentential T-subjects:

(3) a. It [v_{max} turned out that he was a spy]b. It is [a_{max} likely that he will arrive late]

Observe first the paradigm in (4), which was pointed out to me by David Pesetsky (personal communication):

(4) a. [That he knows the truth] is significant.

b. ??We consider [that he knows the truth] to be significant.

c. *It was considered [that he knew the truth] to be significant.

d. *It seems [that he knows the truth] to be significant (to them).

While the example (4b) is less than perfect, it is unmistakably better than examples like (4c) and (4d), which are completely intolerable. We therefore regard (4b) as a basically grammatical sentence, leaving its awkwardness unexplained at this moment.

The paradigm in (4), then, seems to provide us with a rather clear generalization. That is, the sentential I-subject is permitted only in the position where Case is available. Compare the distribution of the non-empty NPs in (5) and that of sentential I-subjects in (4) to confirm this generalization:

- (5) a. [*The difference*] is significant.
 b. We consider [*the difference*] to be significant.
 c. *It was considered [*the difference*] to be significant.
 d. *It seems [*the difference*] to be significant.

Then, in the Subject Raising Analysis, the paradigm in (4) can be accounted for in terms of the Case Filter and the Last Resort Principle when we follow the well-accepted observation made by Rosenbaum (1967) and Emonds (1976) that some instances of sentential subjects are nominal while others are not. The essence of the Case Filter and the Last Resort Principle is stated in (6) and (7), respectively:³

- (6) *The Case Filter* (cf. Chomsky (1981)):

Phonetically non-empty nominals must have Case.

- (7) *The Last Resort Principle* (cf. Chomsky (1986)):

Move- α applies if and only if it is required by the Case Filter.

The explication here proceeds as follows. Since the Last Resort Principle permits the movement of sentential subjects only when it is required by the Case Filter, all the sentential subjects which have undergone Subject Raising, therefore all the sentential I-subjects in (4), must be nominal. From this, it follows that (4a) and (4b) are well-formed whereas (4c) and (4d) are not, since sentential I-subjects appear in a Case position in the former but not in the latter examples. The Subject Raising Approach thus can offer a quite

simple account for the paradigm in (4), which would otherwise be puzzling.

The Subject Raising Analysis for English can be further supported when the existence of the V^{max} -internal trace at LF is motivated. Observe first the example in (8):

(8) Someone must love her.

This sentence is ambiguous with respect to the scope of the subject NP *someone* relative to the auxiliary *must*, as illustrated in (9):

(9) a. *Higher Scope*:

There exists at least one person s.t. the speaker believes him/her to love her. (E > MUST)

b. *Lower Scope*:

The speaker believes that there exists at least one person who loves her. (MUST > E)

However, the ambiguity here, especially the possibility of the lower scope reading in (9b), is quite unexpected, given the traditional phrase structure of English.

A similar but slightly different puzzle arises in the example like (10):

(10) John and Mary *reluctantly* moved to the *same* city.

(Carlson (1985))

In this sentence, the quantifier-like element *same* exhibits what Carlson (1985) refers to as the "sentence-internal" comparison within the scope of the VP-adverb *reluctantly*. The sentence may exhibit a reading, therefore, in which *John and Mary's* reluctance to move was based upon the fact that they do not wish to live in any city the other lives in. The possibility of this reading, however, implies the presence of the licenser of *same* within the scope of the VP-adverb *reluctantly*, just as the scope of *different* narrower than *want* in (11) and (12) is made possible by the existence of PRO and the trace, respectively, within the scope of *want*:

(11) John and Bill_i want [PRO_i to live in different cities]

- (12) Which kids₁ does the hurried baby sitter want
[to send t₁ to different rooms]

Both these problems are reminiscent of the problem discussed by May (1977, 1985) concerning the scope ambiguity of quantifiers as in (14) in the raising construction like (13):

- (13) *Someone* is likely to love her.

- (14) a. *Higher Scope*:

There is at least one person who is likely to love her. (E > LIKELY)

- b. *Lower Scope*:

It is likely that there is at least one person who loves her. (LIKELY > E)

May ascribes the possibility of the lower scope reading in (14b) to the presence of the trace functioning as a variable within the scope of the raising predicate *Likely*, as illustrated in (15):

- (15) Someone₁ is likely [t₁ to love her]

(May (1977, 1985))

In the Subject Raising Approach, we can assimilate our problems to the cases involving raising predicates, postulating V^{max} -internal subject traces in the S-structure and LF-representations as in (16) and (17), which are comparable to (15):

- (16) *someone₁* must [V^{max} love her t₁]

- (17) John and Mary₁ [V^{max} reluctantly moved to the *same* city t₁]

Thus, the postulation of the V^{max} -internal trace at LF can be motivated. This again supports the Subject Raising Analysis of English phrase structure.

3. Binding Theory

Let us now turn to our main topic and see how the Internal Subject Hypothesis interacts with the theory of binding.

Chomsky (1980) proposed that the binding facts observed in (18) and (19) can be accounted for in terms

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Obviously, one important task to be fulfilled in the "SUBJECT" Approach is to demonstrate that there indeed exists a clear correlation between AGR and referential opacity independent of Tense. One of the strongest cases comes from Portuguese. For example, as illustrated by (20a), inflected infinitivals in Portuguese exhibit overt subject-verb agreement without any tense morpheme, and as illustrated in (20b), a lexical anaphor in general may not appear in the subject position of an inflected infinitival (Rouveret (1980), Zubizarreta (1982)):⁴

(20) *Inflected Infinitivals in Portuguese:*

- a. O João disse para [tu não saires
the João told for you=NOM not to=leave=2=SG

de casa]
of house

'João told you not to leave home.'

- b. *Eles lamentam [um ao outro terem gasto
they regret each other to=have=3=PL spent

esse dinheiro]
that money

'They regret that each other have spend that money.'

A closer examination of inflected infinitivals in (20), however, immediately suggests a different possibility. That is, it might be significant that the subject in the inflected infinitival is marked with Nominative Case. There still is a possibility, in other words, that neither AGR nor Tense creates opacity, but that opacity is created by the **Nominative Case assigning property** of INFL ([+Nom(inative)]). With this claim, we will naturally predict, contra Rouveret and Zubizarreta, that when AGR is present independently of [+Nominative], the embedded subject will be accessible from the matrix with respect to binding.

In European Portuguese, there in fact exists a construction in which AGR can be dissociated from both Tense and [+Nominative], and this construction will permit us to evaluate our prediction. Based upon the fact that this construction can be used as a colloquial free variation of a gerund, I will call it a "gerundive infinitival". As illustrated in (21) below, gerundive

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infinitivals show subject-verb agreement without either tense or Nominative Case marking of a subject. Notice that the subject of a gerundive infinitival is marked with Accusative rather than Nominative Case:

(21) *Gerundive Infinitivals*:

- a. Eu sonhei contigo a roubares galinhas
I dream with=you=ACC at stealing=2=SG chickens

'I saw you stealing chickens in my dream.'

- b. Eu deparei contigo a beijares
I found with=you=ACC at kissing=2=SG

a professora
the teacher=F

'I found you kissing the teacher.'

The examples in (22) and (23) below demonstrate that a gerundive infinitival is indeed a construction appropriate to our argument, namely, a complement clause. First, as illustrated by (22), it may be focused in a pseudocleft construction. A gerundive infinitival, in other words, makes up a single constituent:

- (22) Ele não deparou contigo a roubares
he not found with=you=ACC at stealing=2=SG

galinhas, o que ele deparou foi
chickens the that he found was

[~~o~~ contigo a comeres galinhas]
with=you=ACC at eating=2=SG chickens

'He didn't find you stealing chickens.
What he found was you eating chickens.'

The cognitive synonymy of the active-passive pair in (23) in turn argues for the clausal status of a gerundive infinitival:="

- (23) a. Eu sonhei com os alunos a roubarem
I dreamed with the students at stealing=3=PL

galinhas
chickens

'I saw the students stealing chickens
in my dream.'

- b. Eu sonhei com galinhas a serem roubadas
 I dreamed with chickens at being=3=PL stolen
 pelos alunos
 by=the students
 'I saw chickens being stolen by the students
 in my dream.'

Let us now present the crucial data in (24), which clearly show that AGR independent of [+Nominative] does not create opaque domain with respect to binding:

- (24) a. Eles₁ sonharam [_{GR} { *um com outro*₁ } a
 they dreamed *consigo*₁ at
 with=themselves
 roubarem galinhas]
 stealing=3=PL chickens
 'They saw each other stealing chickens in their
 dreams.'

- b. Eles₁ deram [_{GR} { *um com outro*₁ } a beijarem
 they found *consigo*₁ at kissing=3=PL
 with=themselves
 as professoras]
 the teachers
 'They found each other kissing the teachers.'

In these examples, lexical anaphors as the subject of a gerundive infinitival may be bound by the matrix subject despite the clear presence of agreement in the gerundive infinitival. Compare the gerundive infinitivals in (24) with the tensed clause in (25a) and the inflected infinitival in (25b), where the complement subject is marked with Nominative Case (cf. (20a)):

- (25) a. *Eles sonharam [que { *si*
 they dreamed that *themselves*
um ao outro
 each other
 tinham roubado galinhas]
 had stolen chickens

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b. *Eles lamentam [{ *si* }
 they regret themselves
 um ao outro
 each other

 terem gasto esse dinheiro]
 to=have=3=PL spent that money

Moreover, if we replace a lexical anaphor in the subject position of a gerundive infinitival with a pronoun, as in (26), it is disjoint in reference from the matrix subject. This is exactly what we predict given the complementarity of the Principles A and B of the Binding Theory:

(26) Eles_i sonharam [*os* com *eles*_i a roubarem
 they dreamed with them at stealing=3=PL

 galinhas]
 chickens

'They saw them stealing chickens in their dream.'

Summarizing our analyses of Portuguese, we can come up with the chart in (27), which suggests the direct correlation between the referential opacity of an embedded clause and the Nominative Case assigning property of INFL rather than AGR:↵

(27)	Tns AGR		NOM	Anaphoric Pronominal	
				Binding	Binding
Finite Clause	+	+	+	-	+
Inflected Inf.	-	+	+	-	+
Gerundive Inf.	-	+	-	+	-

The Portuguese facts we have examined certainly provide us with a good motivation to re-examine the possibility of accounting for the contrast in (28) below in terms of the NIC. As has already been pointed out, however, if we adopt the NIC in its present form, we will be forced to give up the unification of the two binding conditions. The contrast in (29) will require us to retain the SSC, since Nominative Case marking has nothing to do with the contrast there.

(28) *NIC Paradigm*: (= (18))

- a. They₁ believe (that) [_{IP} { ^{**each other*}
they₁ } will win]
[+NOM]
- b. They₁ [_{VP} believe { ^{*each other*}
_{**them*}₁ } to have won]

(29) *SSC Paradigm*: (= (19))

- a. They₁ expected [Mary to like { ^{**each other*}
SS them₁ }]
- b. They₁ expected [PRO₁ to like { ^{*each other*}
_{**them*}₁ }]

This dilemma can be solved, however, if we extend the NIC in the following way. First, we hypothesize that opacity in binding is created by **lexical Case marking in general** rather than just Nominative Case marking. Second, we define "binding category" as in (30):

(30) *Binding Category = Lexical Case Island*:

The binding category for @ is the maximal projection of @'s lexical Case marker.

(@ = anaphor or pronominal)

This definition plays a role in the familiar principles of the binding theory as in (31):

(31) *The Binding Theory*:

- A: An anaphor is bound in its binding category.
B: A pronominal is free in its binding category.

(30) combined with (31) thus requires anaphors to be bound and pronominals to be free within the maximal projection of their lexical Case assigner.

We have, in a sense, extended Rouveret-Vergnaud's (1980) and Cole-Hermon's (1981) proposal as in (32) based upon the dichotomy of lexical and non-lexical Case proposed by Chomsky (1981) and Saito (1983, 1985) as summarized in (33):

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(32) *Case Island Hypothesis*:

Case marking in general is responsible for referential opacity.

(33) *Lexical vs. Non-lexical Case*:

	Nominative	Accusative	Genitive
English	lexical	lexical	non-lexical
Japanese	non-lexical	lexical	non-lexical

This dichotomy of Case is empirically well-motivated, as summarized in (34) through (38). First, genitive Case in English does not exhibit the kind of head-dependency Nominative Case marking exhibits, as illustrated by the contrast between (34a-c) and (35a-c):

(34) genitive marking \neq head-dependent:

- a. John's brother (concrete noun)
- b. John's sincerity (abstract noun)
- c. the enemy's destruction of the city (deverbal noun)

(35) Nominative marking = head-dependent:

- a. We believe (that) he is honest (Finite)
- b. We believe him to be honest (Infinitival with ECM)
- c. I tried PRO to be nice (Infinitival)

Second, Case conversion in Japanese is possible with nominative but not with Accusative Case (Saito (1983, 1985)). This is illustrated by the contrast between (36) and (37).

(36) *ga/no*-conversion:

Taroo ga/no okane o otosita toori
 nom/gen money ACC dropped street

'the street on which Taro dropped money'

(37) **o/no*-conversion:

Taroo ga okane o/*no otosita toori
 ACC/gen

Finally, nominative marking in Japanese, in principle, is indefinitely stackable (Kuno (1973)), as illustrated by (38). This will perhaps count as the sufficient (though not necessary) condition for the non-lexical status of nominative Case in Japanese.⁷

- (38) *bunmeikoku ga toshibu ga*
 civilized=nation nom urban=areas nom
- dansei ga heikinzyumyoo ga mizikai*
 male nom average=life=span nom short

'It is in the urban areas of civilized nations that men are such that their average life-span is short.'

Making an appeal to the dichotomy between lexical and non-lexical Case, we thus extend the notion "Nominative island" into a more general notion "lexical Case island".

The effect of this "lexical Case Island" Approach to binding theory is straightforward in (28a) --- the binding category for alpha is the complement IP, since @ (in (30)) receives Nominative Case from the embedded INFL. Therefore, a pronominal but not an anaphor may appear as @, lacking any legitimate binder within the binding category.

Given the traditional phrase structure analysis of English, on the other hand, this theory immediately runs into trouble. In (28b), for example, it seems plausible to assume that @ receives Accusative Case from the matrix verb *believe*. @'s binding category, therefore, is the maximal projection of the matrix verb, according to the definition of "binding category" in (30). It seems impossible, therefore, to subsume the SSC under the NIC as long as we assume that subjects are base-generated immediately under the IP node and stays there throughout the derivation.

Notice, however, that this problem is immediately solved if we have a phrase structure analysis of English that permits us to locate the subject of a sentence under the V^{max} node. In other words, the moment we combine the proposed binding theory with the Internal Subject Hypothesis we have argued for, the problem will disappear. As illustrated in (39) below, in this analysis, the matrix V^{max} contains a trace bound by the subject *they*. Let us continue to label such a subject as "T-subject":

- (39) *They*₁ [V^{max} believe [{ *each other*₁ } to win] *t*₁]
 **them*₁

The embedded subject position in (39), therefore, is accessible from the matrix subject, via its T-subject trace within the matrix V^{max} , permitting an anaphor but not a pronominal.

With the notion T-subject, the Case Island Approach not only accounts for the NIC effects but also the SSC effects.

In (40) below, @ receives Accusative Case from the complement verb *like*. The binding category, therefore, is the complement V^{max} . Although this V^{max} contains a T-subject trace (t_z), it is not a legitimate binder for either *them* or *each other*, since it is bound by a singular NP *Mary*. As a result, *them* but not *each other* becomes possible in the embedded object position:

- (40) They₁ expected Mary_z to
 them₁
 [V^{max} like { } t_z]
 *each other₁

If the T-subject trace in the complement V^{max} is bound by a plural antecedent as in (41) or (42), on the other hand, the binding category for @ will contain a legitimate antecedent. The complementarity of an anaphor and a pronominal, therefore, will be reversed to that in (40).

- (41) They₁ expected PRO₁ to
 each other₁
 [V^{max} like { } t_1]
 *them₁

- (42) Sam expected Mary and Sue₁ to
 each other₁
 [V^{max} like { } t_1]
 *them₁

Thus, the Lexical Case Island Approach to binding permits us to unify the NIC and SSC without recourse to the assumption that AGR functions as a SUBJECT --- an assumption whose validity has been questioned. It seems to me that this is a significant improvement of the theory of binding, which can be brought about only when we incorporate the Internal Subject Hypothesis into the theory.

The Lexical Case Island Approach, especially, the use of the dichotomy between lexical and non-lexical Case in the Binding Theory can be further motivated in the following ways.

First, it permits us to account for certain distinction between Japanese and English with respect to binding. As illustrated by the contrast between the examples in (43) and those in (44), Japanese anaphors, unlike English anaphors, observe the SSC but are immune to the NIC (cf. Huang (1982)). Compare especially the Japanese examples in (44) with their English translations:

- (43) a. Taroo₁ ga [_{vmax} Hanako₂ ga mizukara₂/*₁ o
 nom nom self ACC
 seme]-ru to wa omottemominakatta (koto)
 blame-PRES COMP top never=thought (fact)
 'Taro never thought that Hanako would blame
 self.'
- b. karera₁ ga [_{vmax} hutari₂ ga sorezore₂/*₁ o
 they nom two nom each ACC
 seme]-ru to wa omottemominakatta (koto)
 blame-PRES COMP top never=thought (fact)
 'They never thought that the two would blame
 each.'
- (44) a. Taroo₁ ga [_{vmax} mizukara₁ ga syoo o
 nom self nom award ACC
 to]-ru to wa omottemominakatta (koto)
 get-PRES COMP TOP never=thought (fact)
 'Taro never thought that self would win
 the award.'
- b. karera₁ ga [_{vmax} sorezore₁ ga yakusoku o
 they nom each nom promise ACC
 mamō]-ru to sinziteiru (koto)
 keep-PRES COMP believe (fact)
 'They believe that each will keep a promise.'

As a result, a familiar complementarity between anaphors and pronominals breaks down in the subject position of

a Japanese sentence, as illustrated by the contrast between (44a) and (45):

- (45) Taroo₁ *ga* [_{V^{max}} { *he* } *ga* kanarazu kat]-u
 nom *pro*₁ nom surely win-PRES
- to omoikondeiru (koto)
 COMP believe (fact)

'Taro₁ is convinced that he₁ will surely win.'

In the Lexical Case Island Approach, these facts follow quite straightforwardly. We can ascribe the contrast between Japanese and English concerning the NIC effect to the different ways Nominative Case is assigned in the two languages. That is, nominative *ga*-marking in Japanese is non-lexical, while the Nominative marking in English is lexical. Since the anaphors in (43a) and (43b) are lexically Case marked by the embedded verb, the embedded V^{max} there becomes a binding category for them. Therefore, the anaphors must be bound within the embedded V^{max} in (43a-b).²⁵ The *ga*-marked anaphors in (44a-b), on the other hand, lack a binding category since they lack a lexical Case marker. As a result, they can be bound from outside the embedded V^{max}.

Incidentally, I am assuming here, following Kurata (1986) and other works, that it is those items in (46) which behave as pure anaphors in Japanese, rather than a more familiar reflexive item *zibun*:

(46) *Lexical Anaphors in Japanese:*

- | | | | |
|----|--------------------|--------------|----------------------------|
| a. | <i>zibun-zisin</i> | 'self' | (Kurata (1986)) |
| b. | <i>mizukara</i> | 'self' | (Kitagawa (1986)) |
| c. | <i>sore-zore</i> | 'each' | (" ") |
| d. | <i>ono-ono</i> | 'each' | (" ") |
| e. | <i>otagai</i> | 'each other' | (Yang (1983), Ueda (1984)) |

(*zibun* ≠ pure anaphor: (Ueda (Ibid.), Fukui (1984))

The Lexical Case Island Approach can be further motivated when it provides a simple account for the phenomenon known as the "long-distance binding" as in (47):

- (47) They₁ thought that [[_{NP} each other₁'s pictures] were on sale]

When we compare (47) with the example involving an NIC violation in (48), we notice that the binding of an

anaphor is permitted in (47) but not in (48), despite the fact that the anaphor is located in a more deeply embedded position in the former. This fact is rather surprising when we consider that the binding of anaphors usually requires a certain locality.

(48) *They believe (that) [_{IP} each other will win]

In the Lexical Case Island Approach, however, this "inversed" locality of anaphor binding can be handled in a straightforward way. In (48), *each other* is lexically Case marked by the INFL of the complement clause. It therefore must be bound within the lexical Case island created by the INFL, namely, the lower IP. In (47), on the other hand, *each other* is not lexically Case marked by the nominal head. It therefore is free of a lexical Case island and is accessible from the matrix subject. The binding of the genitive-marked anaphor in the Japanese example (49) is permitted in exactly the same way.

(49) Taroo_i ga [[_{NP} mizukara_i no sakuhin ga]
 nom self gen work nom

nyuusensuru] to sinziteiru (koto)
 selected COMP believe (fact)

'Taro believe that self's work will be
 selected for exhibition.'

In the Lexical Case Island Approach, in other words, the possibility of "long-distance binding" in both English and Japanese is predicted, since genitive marking is non-lexical in both languages.

To sum up, I have first sketched out the Internal Subject Hypothesis of phrase structure in Japanese and English.

Then, I turned to the topic of binding. First, I questioned the validity of the "SUBJECT" Approach, providing some new observations concerning gerundive infinitivals in Portuguese. Second, I proposed the Lexical Case Island Approach to binding and argued that its interaction with the Internal Subject Hypothesis provides us with a new insight into various problems of the Binding Theory.'

NOTES:

*I am extremely grateful to David Pesetsky for helping me organize the ideas.

1. Kuroda (1986) and Fukui (1986) both propose a different version of the Internal Subject Analysis in which a structure like (1b) is base-generated. See also Kratzer (1984) for a D-structure analysis of a finite sentence in German similar to (1a).

2. Note that "V^{max}" here does **not** correspond to the traditional "VP".

3. Kitagawa (1986) suggests that the Last Resort Principle may be made more general as in (i) below:

(i) *The Isomorphy Constraint:*

Representations at distinct syntactic levels are isomorphic unless principles of grammar require otherwise.

4. See George-Kornfilt (1978) for similar facts involving gerunds in Turkish.

5. Recall the classical argument for assigning different structures to the complement of *expect* and *persuade* provided by Chomsky (1965, 22).

6. Enç (1985) arrives at a similar conclusion to ours concerning Turkish, while Kornfilt (1984) further argues for the relevance of AGR.

7. Saito (1985) further claims that this dichotomy of Case creates a subject-object asymmetry in Case marker drop and scrambling in Japanese.

8. Notice that I am assuming here that the Principles A and B of the Binding Theory apply in the LF component.

9. The proposed binding theory has some non-trivial implications to the PRO Theorem and the Control Theory. Its comparison with Chomsky's (1986) ECP Approach to the NIC and the notion BT-compatibility is also an important task to be fulfilled. The reader is referred to Kitagawa (1986) for discussions on these matters.

REFERENCES:

- Borer, H. (1986) "I-subjects," *Linguistic Inquiry* 17.3., 375-416.
- Carlson, G. (1985) "Same and Different: Some Consequences for Syntax and Semantics," ms., University of Iowa.
- Chomsky, N. (1965) *Aspects of The Theory of Syntax*, MIT Press, Cambridge, Massachusetts.
- Chomsky, N. (1980) "On Binding," *Linguistic Inquiry* 11.1., 1-46.
- Chomsky, N. (1981) *Lectures on Government and Binding*, Foris, Dordrecht.
- Chomsky, N. (1986) *Knowledge of Language -- Its Nature, Origin, and Use*, Praeger, New York.
- Cole, P. and G. Hermon (1981) "Subjecthood and Islandhood: Evidence from Quechua," *Linguistic Inquiry* 12.1., 1-30.
- Emonds, J. (1976) *A Transformational Approach to English Syntax: Root, Structure-Preserving, and Local Transformations*, Academic Press, New York.
- Enç, M. (1985) "Agreement and Governing Categories," ms., University of Southern California.
- Fukui, N. (1984) "Studies on Japanese Anaphora I: the Adjunct Subject Hypothesis and 'zibun'," ms., MIT.
- George, L. and J. Kornfilt (1981) "Finiteness and Boundness in Turkish," in F. W. Heny ed., *Binding and Filtering*, MIT Press.
- Huang, C.-T. J. (1982) *Logical Relations in Chinese and the Theory of Grammar*, Doctoral dissertation, MIT.
- Kitagawa, Y. (1986) *Subjects in Japanese and English*, Doctoral dissertation, UMass/Amherst.
- Koopman, H. and D. Sportiche (1986) "A Note on Long Extraction in Vata and the ECP," *The Linguistic Review* 4.3, 357-374.
- Kornfilt, J. (1984) *Case Marking, Agreement, and Empty Categories in Turkish*, Doctoral dissertation, Harvard University.

- Kratzer, A. (1984) "On Deriving Syntactic Differences between German and English," ms., Technische Universitaet Berlin.
- Kuno, S. (1973) *The Structure of the Japanese Language*, MIT Press, Cambridge, Massachusetts.
- Kurata, K. (1986) "Asymmetries in Japanese," ms., University of Massachusetts at Amherst.
- Kuroda, S.-Y. (1986) "Whether We Agree or Not: Rough Ideas about the Comparative Grammar of English and Japanese", ms., UCSD.
- May, R. (1977) *The Grammar of Quantification*, Doctoral dissertation, Massachusetts Institute of Technology.
- May, R. (1985) *Logical Form: Its Structure and Derivation*, MIT Press.
- Rosenbaum, P. (1967) *The Grammar of English Predicate Complement Constructions*, MIT Press.
- Rouveret, A. (1980) "Sur la Notion de Proposition Finie," *Recherches Linguistiques* 9.
- Rouveret, A. and J.-R. Vergnaud (1980) "Specifying Reference to the Subject: French Causatives and Conditions on Representations," *Linguistic Inquiry* 11.1., 97-202.
- Saito, M. (1983) "Case and Government in Japanese," in M. Barlow, et al. eds., *MCCFL* 2.
- Saito, M. (1985) *Some Asymmetries in Japanese and Their Theoretical Implications*, Doctoral dissertation, Massachusetts Institute of Technology.
- Ueda, M. (1984) "On a Japanese Reflexive *zibun*: A Non-parametrization Approach," ms., University of Massachusetts at Amherst.
- Yang, D.-W. (1983) "The Extended Binding Theory of Anaphors," ms., Seoul National University.
- Zubizarreta, M. L. (1982) "Theoretical Implications of Subject Extraction in Portuguese," *The Linguistic Review* 2, 79-96.