ON EXCEPTIONAL CASE-MARKING
IN JAPANESE AND ENGLISH*

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The main issue of the present paper is whether the 'Raising-to-Object' phenomenon in Japanese can be accounted for without postulating the process of Raising-to-Object. I will reject the Raising-to-Object analysis and propose the CP-ECM analysis, a variant of the Exceptional Case-Marking analysis proposed originally for the 'Raising-to-Object' phenomenon in English. I will also discuss what kind of parameters are relevant to some of the differences in Japanese and English with respect to Exceptional Case-Marking processes.

1. INTRODUCTION. English has a construction which has been accounted for in terms of the Raising-to-Object (RTO) transformation or Exceptional Case-Marking (ECM). Kuno 1976 argues that a parallel construction is found in Japanese and observes a number of properties characteristic of the construction. In what follows, the RTO/ECM construction in Japanese is given a somewhat detailed examination within the framework of the Government and Binding (GB) theory.

2. THE RTO/ECM PHENOMENON IN JAPANESE. It has long been observed that English exhibits the alternation illustrated in the following sentence pair:

(1) a. I believe that John is an honest boy.
    b. I believe John to be an honest boy.

The propositional content of la is virtually equivalent to that of lb. This

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-271-
fact has been dealt with in terms of, among other approaches, the RTO analysis (e.g. Postal 1974) and the ECM analysis (e.g. Chomsky 1981).

Kuno 1976 argues that Japanese also exhibits a similar phenomenon. For instance, consider the following sentence pairs: 1, 2

(2) a. Yamada-wa Tanaka-ga baka da to omotte ita.
   Yamada-Top Tanaka-Nom fool is COMP thinking was
   'Yamada thought that Tanaka was a fool.'

b. Yamada-wa Tanaka-o baka da to omotte ita.
   Tanaka-Acc
   'Yamada thought Tanaka to be a fool.'

(3) a. Yamada-wa Tanaka-ga hannin da to danteisita.
   culprit determined
   'Yamada determined that Tanaka was the culprit.'

b. Yamada-wa Tanaka-o hannin da to danteisita.
   'Yamada determined Tanaka to be the culprit.'

(Kuno 1976: 23-4)

These sentence pairs show essentially the same alternation phenomenon as the one found in the sentence pair in 1.

Kuno demonstrates that sentences like 2b and 3b have a number of properties which are not found in 'control (or Equi-NP deletion)' cases like 4:

(4) a. Yamada-wa Tanaka-ni [e_i sore-o sitekureru] koto-o
   Yamada-Top Tanaka-Dat it-Acc do thing-Acc
   kitaisite iru.
   expecting is
   'Yamada expects Tanaka to do it.'

b. Yamada-wa Tanaka-ni [e_i sore-o suru] koto-o meizita.
   do ordered
   'Yamada ordered Tanaka to do it.'

(Kuno 1976: 33-4)

One of his arguments is concerned with the preposability of the object clause. In control cases, the controlled complement can be moved around the matrix dative NP (=the controller) as shown below:

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1 Throughout this paper, the following abbreviations are used:
   Top=Topic, Nom=Nominative, Acc=Accusative, Dat=Dative

2 The glosses and translations under Japanese sentences do not always coincide with those in Kuno 1976, but these differences do not have any theoretical implications. My translations are intended to be literal.

(Kuno 1976: 35)

In RTO/ECM cases, in contrast, the complement clause cannot be moved around the accusative NP. Thus, 2b does not have a variant like 6:

(6) *Yamada-wa [baka da] to Tanaka-o omotte ita.

(Kuno 1976: 35)

Another argument comes from the facts concerning 'selectional restriction'. In control cases, the matrix predicate poses some selectional restriction on the dative controller, which is not the case with RTO/ECM construction. By way of illustration, consider the contrast between the following examples:

(7) a. *Yamada-wa sono hon-ni yoku ureru koto-o
    Yamada-Top the book-Dat well sell thing-Acc
    kitaisite iru.
    expecting is
    'Yamada expects the book to sell well.'
    b. Yamada-wa sono hon-o tumaranai to omotta.
        book-Acc uninteresting COMP thought
        'Yamada thought the book to be uninteresting.'

(Kuno 1976: 34)

In 7a, sono hon(-ni) is not an appropriate 'expectee', which makes the sentence unacceptable. In 7b, however, the matrix verb omotta does not pose any restriction of this kind on the accusative NP, sono hon(-o).

Kuno's observation indicates that the dative NP in 7a is θ-marked by the matrix predicate, while the accusative NP in 7b is θ-marked by the embedded predicate. This fact can be clearly seen in the following examples:

(8) a. Yamada-wa Tanaka-ni kitaisite iru.
    Yamada-Top Tanaka-Dat expecting is
    'Yamada expects something of Yamada.'
    b. Yamada-wa Tanaka-ni meizita.
        ordered
        'Yamada gave orders to Tanaka.'

(9) a. *Yamada-wa Tanaka-o danteisita.
    Yamada-Top Tanaka-Acc determined
    'Yamada determined Tanaka.'
b. *Yamada-wa Tanaka-o omotta.³
thought
‘Yamada thought Tanaka.’

In 8a and 8b, Tanaka-ni can occur without a complement clause, because it is θ-marked by the matrix verb. In 9a and 9b, on the other hand, Tanaka-o cannot occur without a complement clause, because it is not θ-marked by the matrix predicate but by an embedded predicate.

In addition to the arguments so far, we can point out that control does not necessarily occur in ‘control’ constructions. Consider the following examples:

(10) a. Hitobito-wa syusyō-ni [e-tatāri ni zisyokusuru
people-top Prime Minister-Dat at once resign
koto-o kitaisite iru.
thing-Acc expecting are
‘People expect Prime Minister to resign at once.’
b. Syusyō-ga tatadini zisyokusuru (koto).
PM-Nom (fact)
‘Prime Minister will resign at once.’

people-top PM-Dat prices fall
iru.
‘People expect it of Prime Minister that prices will fall.’
b. *Syusyō-ga bukka-ga sagaru (koto).
PM-Nom fact

In 10a, the dative NP syusyō-ni controls the empty subject of the embedded clause, and if we substitute syusyo for the empty subject and attach the nominative marker -ga to it, we can construct a grammatical sentence, 10b. In 11a, however, the dative NP does not control anything in the embedded clause. That is, although 11a is grammatical, we cannot construct an acceptable sentence corresponding to 10b.

IN RTO/ECM sentences, however, this kind of phenomenon does not occur.⁵ Thus, the following example, corresponding to 11a, is not well-

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³ 9b is acceptable if interpreted as ‘Yamada called Tanaka to mind.’
⁴ koto (the fact that) is added to the end of some Japanese examples to eliminate the awkwardness that arises from the lack of a topic in a declarative matrix sentence.
⁵ However, there are a few exceptional cases, which do not affect the essence of this observation. See 3.3.2.
formed:

(12) *Hitobito-wa syusyo-o bukka-ga sagaru to omotte iru.
    people-Top PM-Acc prices fall COMP thinking are

This fact can be accounted for straightforwardly if we assume that the accusative NP in question originates in the embedded clause, as the RTO/ECM analyses imply.

Thus, we can conclude that Japanese has RTO/ECM sentences which are distinguishable from control sentences.

3. ECM vs RTO

3.1. The ECM Analysis in English. Chomsky 1981 proposes the Projection Principle as a principle of Universal Grammar (UG):

(13) Projection Principle: Representations at each syntactic level (i.e., LF, and D- and S-structure) are projected from the lexicon, in that they observe the subcategorization properties of lexical items. (Chomsky 1981: 29)

One of the most important consequences of the Projection Principle is that the $\theta$-Criterion holds at every syntactic level:

(14) $\theta$-criterion: Each argument bears one and only one $\theta$-role, and each $\theta$-role is assigned to one and only one argument. (Chomsky 1981: 36)

If the $\theta$-criterion holds at each syntactic level, it follows that movement must be to a $\theta'$-position (Chomsky 1981: 46). This means that there can be no movement to the complement position of a verb, to which a $\theta$-role is assigned obligatorily.

Now consider the following example:

(15) John believes her to be an honest girl.

If we adopt the RTO analysis, the S-structure of 15 is:

(16) John $[v_p [v_{vp} \text{ believes } her_i \ [t_i \text{ to be an honest girl}]]]

In 16, her is moved into the object position of believes. This movement is obviously incompatible with the Projection Principle and the $\theta$-criterion.

Thus, if we adopt the RTO analysis for cases like 15, a serious problem will arise with respect to the Projection Principle and/or the $\theta$-criterion. Chomsky 1981 rejects the RTO analysis for this reason and proposes the ECM analysis, which is modified in some respects in Chomsky 1986b. In what follows, let us assume the modified ECM analysis.

The concepts relevant here are listed below:

(17) Government: $\alpha$ governs $\beta$ iff $\alpha$ m-commands $\beta$ and there is no
γ, γ a barrier for β, such that γ excludes α.6

(Chomsky 1986b, 9)

(18) M-command: α m-commands β iff α does not dominate β and every γ, γ a maximal projection, that dominates α dominates β.7

(adapted from Chomsky 1986b: 10)

(19) Barrier: γ is a barrier for β iff a or b:
   a. γ immediately dominates δ, δ a blocking category (BC) for β;
   b. γ is a BC for β, γ ≠ IP.8

(Chomsky 1986b: 14)

(20) L-marking: where α is a lexical category, α L-marks β iff β agrees with γ that is θ-governed by α.9

(Chomsky 1986b: 70)

In addition to these concepts, the Case filter is assumed:

(21) The Case filter: *NP if NP has phonetic content and has no Case.

One of the consequences of the framework incorporating the concepts 17–20 is that if an IP (=S) (or CP (=S')) is θ-marked by a head, the IP (or CP) is not a barrier for its specifier, and the specifier as well as the IP (or CP) can be governed by the head. The reason is that the specifier of an IP (or CP) agrees with the IP (or CP) through ‘SPEC-head agreement (Chomsky 1986b: 24)’.

With these things in mind, let us consider the following examples:

(22) a. John believes her to be an honest girl.
   b. John [VP [believes [IP her [to [VP be an honest girl]]]]]

(23) a. John believes that she is an honest girl.
   b. John [VP [believes [CP [that [IP she [INFL(AGR) [VP be an honest girl]]]]]]]

If believe selects an IP complement, we have a sentence like 22a, but if it selects a CP complement, the result is a sentence like 23a.

As noted above, if an IP is selected and θ-marked by a verb, the specifier of the IP, that is, the subject NP is governed by the verb. Thus

6 The definition of EXCLUSION is: α excludes β if no segment of α dominates β.

(Chomsky 1986b: 9)

7 The definition of DOMINATION in Chomsky 1986b is: α is dominated by β only if it is dominated by every segment of β.

(Chomsky 1986b: 7)

8 The definition of BC is: γ is a BC for β iff γ is not L-marked and γ dominates β.

(Chomsky 1986b: 14)

9 The definition of θ-GOVERNMENT is: a θ-governs β iff α is a zero-level category that θ-marks β, and α, β are sisters.

(Chomsky 1986b: 15)
her in 22 is governed by believes. It is the government by the matrix verb believes that accounts for the fact that her behaves like a direct object in spite of staying within the embedded IP. The accusative Case-marking of her, for example, is done through government by believes. This Case-marking is exceptional in that the Case-marked NP itself is not θ-marked by the Case-assigner. However, it is done through essentially the same process as canonical accusative Case-marking, that is, under government by a transitive verb.

In 23, in contrast, the embedded CP is a barrier for she and blocks the government of she by believes. However, she is governed by AGR within the head of the embedded IP. She is assigned nominative Case and passes the Case filter.

Thus the ECM/RTO phenomenon in English can be accounted for without recourse to the RTO analysis. In other words, the ECM/RTO phenomenon in English can be accounted for without modifying the θ-criterion or the Projection Principle in any way.

3.2. The ECM Analysis in Japanese. In 3.1. it has been demonstrated that the English ECM/RTO phenomenon can be accounted for by the ECM analysis, and the θ-criterion and the Projection Principle can be held intact.

Unfortunately, however, the ECM analysis above (henceforth, the IP-ECM analysis), as it is, cannot be applied to the Japanese ECM/RTO phenomenon. Consider the following example:

   ‘Yamada thinks that Tanaka is honest.’

b. Yamada-wa [VP [CP [IP Tanaka-o syoziki da] to]] omotte-iru]

If the S-structure of 24a is 24b, the matrix verb omotte-iru cannot govern the embedded subject Tanaka, because the embedded CP is a barrier for Tanaka and blocks the government of Tanaka by the matrix verb as in 23 above. Unlike the case in 22, the embedded clause cannot be an IP, because it is accompanied by the overt complementizer to. Thus the IP-

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ECM analysis proposed for English does not work in Japanese. However, this does not mean that we cannot posit any ECM analysis for Japanese. Suppose that the S-structure of 24a is not 24b but 25 below:

\[
(25) \text{Yamada-wa} [_{vP} [_{IP} t_i [_{vP} syoziki da]] to] \text{omotte-iru]}
\]

Here, the embedded subject Tanaka is moved to the specifier position of the embedded CP from the specifier position of the embedded IP. Recall that if a CP complement is \( \theta \)-market by the matrix verb, not only the CP but also its specifier is governed by the verb. In 25, Tanaka as well as the embedded CP is governed by the matrix verb \text{omotte-iru}.

Thus we can posit an ECM analysis of the type illustrated in 25 (henceforth, the CP-ECM analysis) for the Japanese ECM/RTO phenomenon.\(^{11}\)

### 3.3. THE CP-ECM ANALYSIS AND OBJECT PHENOMENA

In this subsection, I examine how the CP-ECM analysis accounts for main cases of the so-called ‘object phenomena’ of \( o \)-marked embedded subjects in the ECM sentences, without the RTO movement.\(^{12}\)

#### 3.3.1. CASE-MARKING

If an NP undergoes CP-ECM, the NP is assigned accusative Case, which is normally assigned to direct object NPs. Compare 26b with 27:

\[
(26) \quad \text{Yamada-wa Tanaka-ga baka da to omotte iru.} \\
\text{Yamada-Top Tanaka-Nom fool is COMP thinking is} \\
\text{‘Yamada thinks that Tanaka is a fool.’}
\]

b. \( \text{Yamada-wa Tanaka-o baka da to omotte iru.} \)

\( \text{Tanaka-Acc} \)

\text{‘Yamada thinks Tanaka to be a fool.’}

(27) \( \text{Yamada-wa Tanaka-o kiratte iru.} \)

\( \text{Tanaka-Acc} \)

\text{‘Yamada hates Tanaka.’}

Let us assume, along the lines suggested in Saito 1982, 1983, 1985, that accusative Case is assigned to an NP under government by a transitive verb, while the nominative Case particle \(-ga\) is attached to a phrase and

\(^{11}\) For other languages which require some type of CP-ECM analysis, see Massam 1985 and Shlonsky and Sigler 1985.

\(^{12}\) For a more extensive discussion of ‘object phenomena’, see Kuno 1976.
ga-marked phrases are subject to the following condition at S-structure:

(28) The Condition for ga-marking: A ga-marked phrase must appear in [Ip — I"].

Given these assumptions, let us see how the Japanese CP-ECM phenomenon is explained. Suppose that an embedded subject NP is not assigned nominative Case:

(29) Tanaka-wa [Yamada syoziki da to] omotte iru.
Tanaka-Top Yamada honest is COMP

The subject NP Yamada, as it stands, cannot pass the Case filter and is forced to move to the specifier position of the CP:

(30) Tanaka-wa [VP [[CP Yamada_i [Ip t_i [VP syoziki da]] to]] omotte iru]

Now that Yamada is in the specifier position of the embedded CP, it is governed and Case-marked by the matrix verb omotte-iru, and we get the following sentence:

(31) Tanaka-wa Yamada-o syoziki da to omotte iru.
Yamada-Acc 'Tanaka thinks Yamada to be honest.'

The same account holds for the so-called 'major subject' or 'multiple ga' constructions. Consider the following example:

(32) Tanaka-wa [Hirosaki-ga ringo-ga oisii to]
Tanaka-Top Hirosaki-Nom apple-Nom delicious COMP
omotte iru.
thinking is

'Tanaka thinks that Hirosaki's apples are delicious.'

Let us assume that a major subject is adjoined to an IP. Our analysis then predicts that if the major subject in the embedded clause is not assigned nominative Case, it is forced to move into the specifier position of the embedded CP and undergoes the CP-ECM process. This prediction is borne out:

(33) a. Tanaka-wa Hirosaki-o ringo-ga oisii to omotte iru.
Hirosaki-Acc

b. Tanaka-wa [CP Hirosaki_i-o [Ip t_i [Ip ringo-ga oisii]] to]] omotte iru.

In summary, the Japanese ECM movement is triggered to avoid the Case filter violation. In other words, the Japanese ECM movement is triggered in accordance with the Last Resort Principle suggested in Chomsky 1986a.
3.3.2. Binding of pronouns. Kuno 1976 observes that if the $o$-marked subject of an embedded clause is coreferential with the subject of the matrix clause, the $o$-marked NP is obligatorily reflexivized:

(34) Yamada$_i$-wa [zibun$_i$-o/*kare$_i$-o tensai da to] omotte ita.
    Yamada-Top self-Acc/he-Acc genius is COMP thinking
    'Yamada$_i$ thought himself$_i$/him$_i$ to be a genius.'

(Kuno 1976: 29)

This phenomenon is characteristic of the object of a verb:

(35) Yamada$_i$-wa zibun$_i$-o/*kare$_i$-o hihansita.
    Yamada-Top self-Acc/he-Acc criticized
    'Yadamai criticized himself$_i$/him$_i$.' (Kuno 1976: 28)

In contrast, when the subject NP of an embedded clause is nominative, reflexivization is optional even if the NP is coreferential with the matrix subject:

(36) Yamada$_i$-wa [zibun$_i$-ga/?kare$_i$-ga tensai da to] omotte ita.
    self-Nom/he-Nom

(Kuno 1976: 29)

The contrast between 34 and 36 can be accounted for by assuming that Japanese pronouns obey the Binding Principle (B) as do English pronouns:

(37) The Binding Principle (B): A pronominal is free in its governing category. (Chomsky 1981: 188)

(38) Governing category (GC): $\alpha$ is the governing category for $\beta$ if and only if $\alpha$ is the minimal category containing $\beta$ and a governor of $\beta$, where $\alpha = NP$ or S. (Chomsky 1981: 188)

The S-structures of 34 and 36 are 39a and 39b, respectively:

(39) a. $[[IP$ Yamada$_i$-wa $[VP$ $[[CP$ $NP$_i-o $[[IP$ $t_i$ $[[VP$ tensai da $INFL]]$ $to]]$ ommette ita$]]]

b. $[[IP$ Yamada$_i$-wa $[VP$ $[[CP$ $[[IP$ $NP$_i-ga $[[VP$ tensai da $INFL]]$ $to]]$ ommette ita$]]]

In 39a, the GC for $NP$_i-o is the matrix IP, because its governor is the matrix verb ommette-ita. It follows from 37 that $NP$_i-o cannot be a pronoun because it is bound in its GC, the matrix IP. In 39b, in contrast, the GC for $NP$_i-ga is the embedded IP because its governor is the INFL of the embedded IP. It follows that $NP$_i-ga can be a pronoun, because it is free in its GC even if it is bound by the matrix subject.
This approach can also account for the interesting contrast between the following examples: 13, 14

(40) a. Yamada-wa [Tanaka-o kare-ga tensai da to] Yamada-Top Tanaka-Acc he-Nom genius is COMP omotte iru. thinking is ‘Yamada thinks that Tanaka is a genius.’

These examples indicate that a resumptive pronoun is possible in a CP-ECM clause, while it is impossible in a non-CP-ECM clause.15 The S-structures of 40a and 40b are 41a and 41b, respectively:

(41) a. [IP Yamada-wa [VP [[CP Tanaka-o [[IP kare-ga [[VP tensai da] INFL]] to]] omotte iru]]
   b. [IP Yamada-wa [VP [[CP [[IP Tanaka-ga [IP kare-ga [[VP tensai da] INFL]]] to]] omotte iru]]

Suppose here that the definition of \textit{M-command} is not 18 but 42:

(18) M-command: \( \alpha \) \textit{m-commands} \( \beta \) iff \( \alpha \) does not dominate \( \beta \) and every \( \gamma \), \( \gamma \) a maximal projection, that dominates \( \alpha \) dominates \( \beta \).

(42) M-command: \( \alpha \) \textit{m-commands} \( \beta \) iff \( \alpha \) does not dominate \( \beta \) and every \( \gamma \), \( \gamma \) \textit{THE HIGHEST SEGMENT OF A MAXIMAL PROJECTION}, that dominates \( \alpha \) dominates \( \beta \).

To see a crucial consequence of this modification, consider 43:

(43) \[
\begin{array}{c}
\text{XP} \\
\text{NP}_1 \quad \text{XP} \\
\text{NP}_2 \quad \text{X'} \\
\text{X} \quad \ldots
\end{array}
\]

Both \( \text{NP}_1 \) and \( \text{NP}_2 \) can be governed by \( X \) under the definition in 42, while \( \text{NP}_2 \) alone can be governed by \( X \) under the definition in 18.

Given 42, the GC for \textit{Tanaka-ga} in 41b is the embedded IP, because it is

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13 Kuno treats sentences like 40a as unacceptable (Kuno 1976: 35). However, Kitagawa 1977 regards them as acceptable. I agree with Kitagawa.
14 40a is an example of the exceptional cases mentioned in note 5.
15 I will not be concerned with the problem of how resumptive pronouns are generated.
governed by the INFL of the embedded clause. On the other hand, the GC for *Tanaka-o in 41a is the matrix IP, because its governor is not the embedded INFL but the matrix verb *omotte-iru. The GC for the pronoun *kare-ga is the embedded IP both in 41a and in 41b because it is governed by the embedded INFL in both cases.\textsuperscript{16} As a result, while *kare-ga can be coreferential with *Tanaka-o in 41a, it cannot be coreferential with *Tanaka-ga in 41b, because the Binding Principle (B) prohibits a pronoun from being bound in its GC.

Notice, incidentally, that the above discussion implies that the position to which a major subject is attached is an argument position (A-position), because the Binding Principles apply to A-binding.

In summary, under the CP-ECM analysis, pronominal binding phenomena in CP-ECM sentences are accounted for by the Binding Principle (B).

\subsection{3.3.3. Scrambling.} Kuno points out that while an *o-marked embedded subject can be scrambled, a *ga-marked embedded subject cannot:

\begin{enumerate}
\item a. Yamada-wa [Tanaka-*ga tensai da to] omotte ita.\hfill (Kuno 1976: 26)
\begin{flushright}
\text{Yamada-Top Tanaka-Nom genius is COMP thinking was}
\end{flushright}
\item b. *Tanaka-*o Yamada-wa [ti tensai da to] omotte ita.
\end{enumerate}

\begin{enumerate}
\item a. Yamada-wa [Tanaka-*o tensai da to] omotte ita.\hfill (45)
\begin{flushright}
\text{Tanaka-Acc}
\end{flushright}
\item b. Tanaka-*o Yamada-wa [ti tensai da to] omotte ita.
\end{enumerate}

Kuno argues that the contrast between 44 and 45 indicates that *Tanaka-o in 45a is raised to the object position of the matrix clause.

This contrast, however, does not support his argument, because a phrase can be scrambled out of an embedded clause if it is not accompanied by the nominative Case particle -*ga:

\begin{enumerate}
\item (46) sono hon-*o John-*ga [Mary-*ga ti katta to] omotte iru.\hfill (Saito 1985: 156)
\begin{flushright}
\text{the book-Acc John-Nom Mary-Nom bought COMP thinking is}
\end{flushright}
\text{‘The book, John thinks that Mary bought.’}
\end{enumerate}

\textsuperscript{16} I assume that the governing category of *kare-o is the top-most embedded IP.
Saito 1985 demonstrates that *ga*-marked phrases generally cannot be scrambled. Thus the contrast between 44 and 45 comes from the unscramblability of *ga*-marked phrases.

The unscramblability of *ga*-marked phrases accounts for another phenomenon pointed out by Kuno. Main clause modifiers generally cannot be placed inside complement clauses:

\[(47)\]
\[
\text{a. Orokanimo, Yamada-wa } \text{[Tanaka-ga tensai da to]} \text{ omotte ita.}
\]
\[\text{‘Stupidly, Yamada thought that Tanaka was a genius.’}\]
\[
\text{b. *Yamada-wa } \text{[Tanaka-ga, oro kanimo, tensai da to]} \text{ omotte ita.} \quad (\text{Kuno 1976: 25})
\]

However, Kuno points out that *oro kanimo* can be placed after the embedded subject when it is assigned accusative Case:

\[(48)\]
\[
\text{a. Orokanimo, Yamada-wa } \text{[Tanaka-o tensai da to]} \text{ omotte ita.}
\]
\[
\text{b. Yamada-wa Tanaka-o, oro kanimo, tensai da to omotte ita.} \quad (\text{Kuno 1976: 25})
\]

Kuno argues that the contrast between 47 and 48 indicates that *Tanaka-o* in 48a is raised to the object position of the matrix clause. However, this contrast may also be due to the fact that *Tanaka-o* can be scrambled out of the embedded clause, but *Tanaka-ga* cannot.

### 3.4. The CP-ECM Movement and Island Effects.

It has been argued so far that in the Japanese CP-ECM construction the complement subject moves to the specifier position of the embedded CP.\(^{17}\) If this analysis is correct, it follows that the CP in which the CP-ECM has occurred has the same configuration as that of an indirect interrogative CP in English. Consequently, one would predict that the Japanese CP-ECM construction shows *wh*-island effects as does the following English

\[^{17}\text{More exactly, the complement subject moves to the left specifier position of the embedded CP. I assume that the right specifier position of a CP is reserved for operator movement in LF:}\]

\[
\ldots [\text{CP} - [C \text{ [IP} \ldots ] \text{ COMP} ] \ldots ]
\]

\[
\uparrow \quad \uparrow
\]

\text{ECM-movement} \quad \text{LF-movement}

\]

I will not be concerned here with the interaction of ECM-movement and LF-movement. Ueda 1987 gives a brief discussion of this problem.
example:

(49) *This book, I wonder [cp to whom [IP he gave t, t,]]

This prediction seems to be borne out. Compare 50 with 51, and 52 with 53:


(52) a. Masao-ga [Taro-ga Kyoko-ni horete iru to] Masao-Nom Taro-Nom Kyoko-Dat in love is COMP omotte iru (koto). thinking is (fact) ‘Masao thinks that Taro is in love with Kyoko.’


b. Kyoko1-ni Masao-ga [Taro-o ti horete iru to] omotte iru

18 There are some speakers to whom sentences like 51b and 53b sound acceptable. I suspect that those speakers might interpret the empty categories in 51b and 53b not as traces but as empty pronominals in some way. As is well-known, Japanese allows an empty pronoun in the complement position of a verb:

(i) Speaker A: Masao-wa [dare-o eigo-ni kuwasii to] Masao-Top who-Acc English-Dat familiar-with COMP omotte iru no? thinking is Q ‘Whom does Masao think to be familiar with English?’

Speaker B: Kare-wa [Kyoko-o e kuwasii to] omotte imasu. he-Top Kyoko-Acc ‘He thinks Kyoko to be familiar (with English).’
It seems impossible to extract phrases out of the embedded clauses in 51 and 53, which have undergone the CP-ECM process.

Notice also that scrambling within an embedded clause does not prohibit extraction out of the embedded clause:


familiar COMP thinking is (fact)

'Tanaka thinks that Yamada is familiar with English for his age.'


The contrast between 51b and 54c indicates that a scrambled phrase is not moved to the specifier position of a CP.

Thus we can say that the CP-ECM analysis is given independent empirical support.

3.5. THE CP-ECM OF OBJECT NPs. According to Massam 1985, there are some languages in which complement object NPs undergo ECM processes. Does the Japanese ECM apply to object NPs? In connection with this, consider the following example:

(55) Kyoko-wa Masao-o Yoko-ga kare-o aisiteru to

Kyoko-Top Masao-Acc Yoko-Nom he-Acc loves COMP omotte iru.

thinks is

'Kyoko thinks that Yoko loves Masao.'

What kind of S-structure does 55 have?

The S-structure of 55 cannot be 56: 19, 20

(56) Kyoko-wa [CP [IP Masao-o-o Yoko-ga [IP kare-o aisiteru] [INFL]] to] omotte iru.

In this structure, the scrambled NP Masao-o binds the resumptive pro-

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19 Following Saito 1985, I assume that a scrambled NP is adjoined to an IP(=S).
20 I ignore adjunction to the VP in the embedded IP, because it is irrelevant to the discussion here. For adjunction to a VP, see Chomsky 1986b.
noun *kare-o*. However, this structure is impossible, because it violates the Binding Principle (B) as does the following example:

(57)  
   a. *Masao_i-o Yoko-ga kare_i-o aisiteru.
   b. [IP Masao_i-o [IP Yoko-ga kare_i-o aisiteru]]

Assuming that *kare-o* is A-bound by *Masao-o* as in the case of the major subject-resumutive pronoun pair, *kare-o* is A-bound in its GC (see 3.3.2.).

Another conceivable structure is 58:

(58)  
   Kyoko-wa [CP Masao_i-o [IP Yoko-ga [[VP kare_i-o aisiteru] INFL] to]] omotte iru.

In 58, *Masao-o* is in the specifier position of the CP, and its GC is not the embedded IP but the matrix IP (see 3.3.2.). Thus the Binding Principle (B) is not violated in 58.

One might argue that *Masao-o* in 55 is extracted out of the embedded clause and perhaps adjoined to the matrix VP: 21

(59)  
   Kyoko-wa [VP Masao_i-o [VP [[CP Yoko-ga kare_i-o aisiteru to] omotte iru]]]

However, notice that if *Masao-o* is scrambled out of the embedded clause, the extraction in question must be applied to 58. The reason is that if the extraction is applied to 56, the trace of the extracted NP still A-binds *kare-o* and violates the Binding Principle (B):

(60)  
   Kyoko-wa Masao_i-o [CP [[IP ti [IP Yoko-ga kare_i-o aisiteru] to]] omotte iru]

Furthermore, if *Masao-o* is extracted from the embedded clause without the intermediate stage 58 (or 56), the resulting structure will be ruled out by the Subjacency Condition and/or the Empty Category Principle (see Chomsky 1986b).

Thus we can conclude that the structure of 58 is independently motivated. Unfortunately, there is no conclusive evidence to decide whether *Masao-o* in 58 is exceptionally Case-marked by the matrix verb or not, but the fact that the structure of 58 must exist gives strong support to the CP-ECM analysis.

3.6. SUMMARY. In this section, I have argued that the RTO/ECM construction in Japanese can be accounted for by the CP-ECM analysis. I have also shown that the CP-ECM analysis has independent empirical motivations.

21 Following Chomsky 1986b, I assume that adjunction to a CP is prohibited.
4. ECM PHENOMENA AND PARAMETERS. I have argued so far that Japanese uses the CP-ECM process, while English uses the IP-ECM process. The questions which immediately arise are, among others, 61 and 62:

(61) Why is the IP-ECM process impossible in Japanese?
(62) Why is the CP-ECM process impossible in English?

Let us first consider 61. The answer to 61 is that in Japanese a complement clause must be a CP. Then, why is an IP not selected by a predicate in Japanese? We might be able to answer this question in terms of the notion of Canonical Structural Realization (CSR) suggested in Grimshaw 1981 and Chomsky 1986a.

Suppose that UG includes the following parameter for the CSR (Proposition):

(63) The CSR (Proposition): Unmarked options — NP, CP

Marked option — IP

IP is the marked option for the parameter of the CSR (Proposition), and is selected by way of positive evidence. English has the positive evidence necessary for this marked option, but Japanese does not. It follows that the IP-ECM is possible in English, but impossible in Japanese.

Let us turn to 62. A number of possible explanations come to mind for this. I propose the following tentative explanation.

Suppose that the following conditions are relevant to this question:

(64) In non-pronoun-drop languages like English, an abstract Case must be assigned whenever possible.

(65) Each chain must have one and only one Case.

In ‘radical’ pronoun-drop languages like Japanese, 64 does not apply. That is, 64 itself is parameterized.

Given these two conditions, consider 66:

(66) a. *Mary believes him (that) is an honest boy.
    b. Mary believes [CP himi [(that) [IP ti INFL(AGR) be an honest boy]]]

If himi is Case-marked by believes, the chain (himi, ti) has two abstract Cases: nominative Case assigned by INFL(AGR) and accusative Case assigned by believes. Thus 66 is ruled out by 65. The absence of the CP-ECM process in English can be accounted for in this way.

5. CONCLUSION. In this paper, I have argued that the so-called Raising-to-Object construction in Japanese can be accounted for by assuming that the o-marked complement subject of the construction is
moved to the specifier position of the embedded CP. I have also proposed two parameters which account for some of the main differences between the Japanese ECM and the English ECM. We can conclude that the ECM phenomenon in Japanese gives support to the $\theta$-criterion and the Projection Principle, because it is these two principles in UG that explain why the CP-ECM process exists in Japanese.

REFERENCES

SHLONSKY, UR, and MICHELE SIGLER. 1985. Unexceptional exceptional Case