

ON THE OPTIONALITY OF RAISING IN THE JAPANESE ECM CONSTRUCTION*

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1. Introduction

This paper addresses the optionality of raising in the Japanese exceptional Case-marking (ECM) construction. Japanese has an ECM construction, where an embedded subject receives accusative Case from a matrix predicate (cf. Kuno 1976):¹

- (1) a. Mary-ga [_{ReportP} Hanako-ga kasiko-i to] omottei-ru.
Mary-NOM [_{ReportP} Hanako-NOM smart-PRS Report] think-PRS
- b. Mary-ga [Hanako-o kasiko-i to] **omottei-ru.**
Mary-NOM [Hanako-ACC smart-PRS Report] **think-PRS**
- ‘Mary thinks that Hanako is smart.’

In (1a), the embedded subject *Hanako* receives nominative Case within the complement clause headed by the Report head *to*. I call this phrase ReportP (cf. Saito 2010). (1b) is an example of the ECM construction. Here the embedded subject *Hanako* receives accusative Case from the matrix predicate *omottei* ‘think’. It has also been established that the ECMed subject can raise into the matrix clause (for arguments for raising, see Kuno 1976, Tanaka 2002, and Hiraiwa 2005, among others):


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¹ See Kuno (1976, 2007), Saito (1985), Kaneko (1988), Tanaka (1992, 2002), Oka (1988), Hoji (1991), Ura (1994, 2007), Sakai (1998), Bruening (2001), Hiraiwa (2001, 2005), Kobayashi and Maki (2002), Takano (2003), Taguchi (2009, 2015), Ogawa (2007), Takeuchi (2010), Akaso (2015), Abe (2016), and Goto (2016), among others.


- (2) Mary-ga [_{vP} Hanako_i-o tuyoku [_{Report} *t_i* kasiko-i to]
 Mary-NOM [_{vP} Hanako-ACC strongly [_{Report} smart-PRS Report]
 omottei]-ru.
 think]-PRS

‘Mary strongly believes that Hanako is smart.’

The ECMed subject *Hanako* in (2) precedes the matrix adverb *tuyoku* ‘strongly’, which indicates that *Hanako* is in the matrix clause after raising. However, there has been a controversy over whether the raising of the ECMed subject is obligatory. Since Kuno (1976), many authors have claimed that the raising of the ECMed subject is obligatory. I call this analysis the *obligatory raising analysis*:

- (3) Obligatory Raising Analysis (cf. Kuno 1976, 2007; Sakai 1998; Tanaka 2002)
- [_{vP} **Hanako**_i [_{ReportP} *t_i* [] Report] *v*]
- 

The ECMed subject in (3) obligatorily moves into the matrix vP/VP (see also Postal 1974, Lasnik and Saito 1991, Koizumi 1995, Bošković 2007, and Chomsky 2013, 2015). However, there have also been authors who claim that the raising of the ECMed subject is optional. I call this analysis the *optional raising analysis*:

- (4) Optional Raising Analysis (cf. Hiraiwa 2001, 2005)
- [_{vP} [_{ReportP} **Hanako**_{[iφ][ACC]} [] Report] V_[uφ] *v*]
- 

The ECMed subject *Hanako* in (4) can stay within the ReportP complement and receive Case via Agree (cf. Chomsky 2000). The raising of the ECMed subject is optional (cf. Lasnik 1999).

The goal of this paper is to examine two arguments for the optionality of raising (cf. (4)) and to show that these arguments can be analyzed through a particular version of the obligatory raising analysis (cf. (3)). One argument concerns the distribution of ECMed indeterminate pronouns:

- (5) Argument for Optional Raising 1: ECMed Indeterminate Subject
- Mary-ga [_{Report} dare-o kasiko-i to]-mo omottei-na-i.
 Mary-NOM [_{Report} who-ACC smart-PRS Report]-MO think-NEG-PRS

‘Mary thinks that no one is smart.’

The ECMed subject *dare* ‘who’ in (5) is an indeterminate pronoun (Sakai 1998), which is supposed to function as an NPI (i.e., *no one*) when c-commanded by the particle *-mo* (see Hiraiwa 2005). Negation is thus in the matrix clause. Given that *-mo* in (5) is attached to the Report head *to*, the acceptability of (5) shows that the ECMed indeterminate pronoun must be in the ReportP complement. (5) is thus claimed to indicate that the raising of ECMed subjects

in Japanese is optional. The other argument for optionality concerns the distribution of embedded adjuncts:

- (6) Argument for Optional Raising 2: Embedded Adjunct
 Mary-ga [Report [gakkyuu-iin kurai] Hanako-o mazime da
 Mary-NOM [Report [class-representative as] Hanako-ACC earnest COP
 to] omottei-ru.
 Report] think-PRS

‘Mary thinks that Hanako is as earnest as a class representative.’

(based on Kobayashi and Maki 2002: 218)

The ECMed subject *Hanako* in (6) is preceded by the embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’. If the embedded adjunct in (6) must be in the ReportP complement, the ECMed subject *Hanako* must also be in the ReportP complement. If the ECMed subject in (5) and (6) stays within the ReportP complement, (5) and (6) provide evidence for the optionality of raising in the Japanese ECM construction.

I argue that, given some novel assumptions concerning indeterminate pronouns and embedded adjuncts, (5) and (6) can be accounted for under the obligatory raising analysis. In particular, I propose that the distribution of indeterminate pronouns is defined on Transfer domains. I further propose that A-movement allows adjuncts a “free ride” (cf. Sohn 1994). This paper is organized as follows. In section 2, I propose an analysis of the distribution of indeterminate pronouns in terms of Transfer domains and a new analysis of ECMed indeterminate pronouns. In section 3, I argue that A-movement allows adjuncts a “free ride” and propose a new analysis of the distribution of embedded adjuncts in the ECM construction. Section 4 is the conclusion.

2. Indeterminate Pronoun Licensing and Transfer Domains

This section discusses the distribution of indeterminate pronouns in the Japanese ECM construction. I argue that the distribution is consistent with the obligatory raising analysis. I also suggest that the distribution of indeterminate pronouns should be defined on Transfer domains.

2.1. Indeterminate Pronouns and the Japanese ECM Construction

Indeterminate pronouns such as *dare* ‘who’ or *nani* ‘what’ behave as NPIs when they are accompanied by the particle *-mo* (see Kuroda 1965, McGloin 1976, Kishimoto 2001, D. Takahashi 2002, and Hiraiwa 2005, among others):

- (7) a. Hanako-ga $\boxed{\text{dare}}\text{-}\boxed{\text{mo}}$ home-**nakat-ta**.
Hanako-NOM $\boxed{\text{who}}\text{-}\boxed{\text{MO}}$ praise-**NEG-PST**
'Hanako praised no one.'
- b. $\boxed{\text{Dare}}\text{-}\boxed{\text{mo}}$ Hanako-o home-**nakat-ta**.
 $\boxed{\text{who}}\text{-}\boxed{\text{MO}}$ Hanako-ACC praise-**NEG-PST**
'No one praised Hanako.'

The object indeterminate pronoun *dare* 'who' in (7a) and the subject indeterminate pronoun *dare* 'who' in (7b) are accompanied by *-mo* and behave as NPIs. Interestingly, the particle *-mo* can be displaced from indeterminate pronouns (Kuroda 1965). However, this displacement is not free and obeys a syntactic condition (cf. Kishimoto 2001; Hiraiwa 2005). We thus observe the following subject/object asymmetry:

- (8) a. Hanako-ga $\boxed{\text{dare}}\text{-o}$ home- $\boxed{\text{mo}}\text{-si-nakat-ta}$.
Hanako-NOM $\boxed{\text{who}}\text{-ACC}$ praise- $\boxed{\text{MO}}\text{-do-NEG-PST}$
'Hanako praised no one.'
- b. * $\boxed{\text{Dare}}\text{-ga}$ Hanako-o home- $\boxed{\text{mo}}\text{-si-nakat-ta}$.
 $\boxed{\text{who}}\text{-MO}$ Hanako-ACC praise- $\boxed{\text{MO}}\text{-do-NEG-PST}$
'No one praised Hanako.'

The particle *-mo* in (8) is attached to the verb *home* 'praise' and is followed by the dummy verb *si* 'do', which is inserted to morphologically support negation and Tense. The object *dare* 'who' in (8a) behaves as an NPI, whereas the subject *dare* 'who' in (8b) fails to behave as an NPI. On the basis of this and other considerations, Hiraiwa (2005) proposes the following condition on the licensing of indeterminate pronouns:

- (9) The head of the chain of the indeterminate must be in the c-command domain of *-mo* at Transfer (based on Hiraiwa 2005: 164).

The above condition accounts for the subject/object asymmetry in (8) as follows:

- (10) a. [TP Hanako_i-NOM [VP *t_i* [VP $\boxed{\text{who}}\text{-ACC}$ V- $\boxed{\text{mo}}$] *v*] **Neg** T] (= (8a))
b. [TP $\boxed{\text{who}}\text{-NOM}$ [VP *t_i* [VP Hanako-ACC V- $\boxed{\text{mo}}$] *v*] **Neg** T] (= (8b))

Hiraiwa (2005) assumes that *-mo* is adjoined to *v* (cf. Kishimoto 2001). The indeterminate pronoun in (10a), which is the accusative object, is c-commanded by *-mo*. By contrast, the indeterminate pronoun in (10b), which is the nominative subject, fails to be c-commanded by *-mo*. As discussed by Hiraiwa (2005), the licensing condition in (9) has an important implication for the analysis of the Japanese ECM construction. To examine this implication, it is helpful to return to (5), which is repeated here as (11):

- (11) Argument for Optional Raising 1: ECMed Indeterminate Subject
 Mary-ga [Report dare-o kasiko-i to]-mo omottei-na-i.
 Mary-NOM [Report who-ACC smart-PRS Report]-MO think-NEG-PRS
 ‘Mary thinks that no one is smart.’ (= (5))

The ECMed indeterminate pronoun in (11) is associated with *-mo* attached to the Report head *to* (Sakai 1998). If indeterminate pronouns must be c-commanded by *-mo*, the acceptability of (11) shows that the ECMed subject can stay within the ReportP complement. This analysis correctly predicts that when the ECMed indeterminate pronoun is located above *-mo*, the former fails to be licensed:

- (12) * Dare-o Mary-ga [Report *t_i* kasiko-i to]-mo omottei-na-i.
 who-ACC Mary-NOM [Report smart-PRS Report]-MO think-NEG-PRS
 ‘Mary thinks that no one is smart.’

The ECMed indeterminate subject in (12) moves to the sentence-initial position and fails to be c-commanded by *-mo*. (12) is thus unacceptable.

While Hiraiwa’s (2005) analysis is quite insightful, there are reasons it must be reconsidered. Here I show that indeterminate pronouns can be licensed without satisfying the c-command condition (see Takano 2003). It is helpful to first consider the following example, which contains a dative argument:

- (13) Case 1: Dative Argument above ReportP
 Mary-ga [VP Taroo-ni [ReportP Hanako-ga kasiko-i to]
 Mary-NOM [VP Taroo-DAT [ReportP Hanako-NOM smart-PRS Report]
 it]-ta.
 say]-PST
 ‘Mary told Taroo that Hanako was smart.’

The matrix verb *iw-* ‘say’ in (13) takes the dative argument, which is located above the ReportP complement. Significantly, when the dative argument is an indeterminate pronoun, it can be associated with *-mo* attached to the Report head *to* (Takano 2003):

- (14) Indeterminate Matrix Dative Argument
 a. ? Mary-ga [VP dare-ni [ReportP Hanako-ga kasiko-i to]-mo
 Mary-NOM [VP who-DAT [ReportP Hanako-NOM smart-PRS Report]-MO
 iw]-anakat-ta.
 say]-NEG-PST

- b. * $\boxed{\text{Dare}}_i\text{-ni}$ Mary-ga $[\text{VP } t_i [\text{ReportP Hanako-ga kasiko-i to}]\text{-}\boxed{\text{mo}}$
 $\boxed{\text{who}}\text{-DAT}$ Mary-NOM $[\text{VP } [\text{ReportP Hanako-NOM smart-PRS Report}]\text{-}\boxed{\text{MO}}$
 iw]-**anakat-ta**.
 say]-**NEG-PST**

‘Mary told no one that Hanako was smart.’

The indeterminate dative argument *dare* ‘who’ in (14a) is associated with *-mo* attached to the Report head *to*. *Dare* ‘who’ in (14b) is in the sentence-initial position and fails to be associated with *-mo*. The contrast between (14a) and (14b) in the indeterminate dative argument appears to be analyzed as being on a par with the contrast between (11) and (12) in the ECM construction. The second case concerns a matrix VP adjunct:

- (15) Case 2: Matrix VP Adjunct above ReportP
 Mary-ga $[\text{VP } \textit{terebi-de} [\text{ReportP Hanako-ga kasiko-i to}]]$
 Mary-NOM $[\text{VP } \textit{TV-on} [\text{ReportP Hanako-NOM smart-PRS Report}]]$
 it]-**ta**.
 say]-**PST**

‘Mary said on TV that Hanako was smart.’

The matrix VP in (15) contains an adjunct *terebi-de* ‘on TV’, which is located above the ReportP complement. As in the case of the indeterminate dative argument in (14), an indeterminate pronoun in the VP adjunct can be associated with *-mo* attached to the Report head *to*:

- (16) Matrix VP Adjunct with an Indeterminate Pronoun
 a. ? Mary-ga $[\text{VP } \boxed{\text{dono}}\text{-baitai-de} [\text{ReportP Hanako-ga kasiko-i}]]$
 Mary-NOM $[\text{VP } \boxed{\text{which}}\text{-media-on} [\text{ReportP Hanako-NOM smart-PRS}]]$
 to]- $\boxed{\text{mo}}$ iw]-**anakat-ta**.
 Report]- $\boxed{\text{MO}}$ say]-**NEG-PST**

- b. * $\boxed{\text{Dono}}\text{-baitai-de}_i$ Mary-ga $[\text{VP } t_i [\text{ReportP Hanako-ga kasiko-i}]]$
 $\boxed{\text{which}}\text{-media-on}$ Mary-NOM $[\text{VP } [\text{ReportP Hanako-NOM smart-PRS}]]$
 to]- $\boxed{\text{mo}}$ iw]-**anakat-ta**.
 Report]- $\boxed{\text{MO}}$ say]-**NEG-PST**

‘Mary said on no media that Hanako was smart.’

The indeterminate pronoun *dono* ‘which’ in (16a) is contained in the VP adjunct and associated with *-mo* attached to the Report head *to*. The VP adjunct (16b) is in the sentence-initial position and *dono* ‘which’ fails to be associated with *-mo*. The contrast between (16a) and (16b) in the VP adjunct appears to be analyzed as being on a par with the contrast between (11) and (12) in the ECM construction.

The acceptability of (14a) and (16a) casts doubts on the c-command condition introduced above (cf. (9)):

- (17) a. Indeterminate Dative Argument (cf. (14a))
 [vP [VP [NP who] [ReportP Report]-mo V] v]
 b. VP Adjunct with an Indeterminate Pronoun (cf. (16a))
 [vP [VP [PP which] [ReportP Report]-mo V] v]

As the dative argument and the VP adjunct fail to be c-commanded by *-mo*, the c-command condition on indeterminate pronouns predicts that both (17a)/(14a) and (17b)/(16a) will be unacceptable, which is contrary to the facts. The observations in this subsection are thus summarized as follows:

- (18) a. ECMed indeterminate subjects can be associated with *-mo* attached to the Report head *to* (cf. (11)).
 b. Matrix indeterminate dative arguments and indeterminate pronouns within matrix VP adjuncts can also be associated with *-mo* attached to the Report head *to* (cf. (14a), (16a)).

2.2. A New Analysis of the Distribution of Indeterminate Pronouns

In this subsection I propose a new analysis of the distribution of indeterminate pronouns, as defined on Transfer domains. As demonstrated above, the c-command condition on the distribution of indeterminate pronouns faces some empirical problems (cf. (18b)). However, it is true that there is some kind of locality imposed on the distribution of indeterminate pronouns. Otherwise, we would not expect the subject/object asymmetry in (8):

- (19) a. Hanako-ga dare-o home-mo-si-nakat-ta.
 Hanako-NOM who-ACC praise-MO-do-NEG-PST
 ‘Hanako praised no one.’ (= (8a))
 b. * Dare-ga Hanako-o home-mo-si-nakat-ta.
who-MO Hanako-ACC praise-MO-do-NEG-PST
 ‘No one praised Hanako.’ (= (8b))

The object *dare* ‘who’ in (19a) behaves as an NPI, whereas the subject *dare* ‘who’ in (19b) fails to behave as an NPI. I thus propose the following condition on the distribution of indeterminate pronouns:

- (20) The head of the chain of the indeterminate and *-mo* must be in the same Transfer domain.

It is now helpful to consider how the subject/object asymmetry is accounted for under the proposed analysis:

- (21) a. [TP Hanako_i-NOM [_{VP} *t_i* [_{VP} who-ACC V-*mo*] *v*] Neg T] (= (19a))
 b. [TP *who*_i-NOM [_{VP} *t_i* [_{VP} Hanako-ACC V-*mo*] *v*] Neg T] (= (19b))

I assume that *-mo* in (21a) and (21b) is adjoined to V (cf. Kishimoto 2001) and that V does not overtly move to *v*. In (21a), the object indeterminate pronoun *dare* ‘who’ and *-mo* are in the same Transfer domain (i.e., VP). In (21b), on the other hand, the subject indeterminate pronoun *dare* ‘who’ and *-mo* are not in the same Transfer domain: although *-mo* is transferred within the VP, *dare* ‘who’ is not transferred until the higher phase (i.e., CP) is completed.

Let us return to the cases of the matrix dative argument and the matrix VP adjunct:

- (22) Matrix Dative Argument/Matrix VP Adjunct
- a. ? Mary-ga [_{VP} *dare*-ni [_{ReportP} Hanako-ga kasiko-i to]-*mo*]
 Mary-NOM [_{VP} *who*-DAT [_{ReportP} Hanako-NOM smart-PRS Report]-*MO*]
iw]-*anakat*-ta.
 say]-NEG-PST
 ‘Mary told no one that Hanako was smart.’ (= (14a))
- b. ? Mary-ga [_{VP} *dono*-baitai-de [_{ReportP} Hanako-ga kasiko-i
 Mary-NOM [_{VP} *which*-media-on [_{ReportP} Hanako-NOM smart-PRS
 to]-*mo*]
 Report]-*MO*]
iw]-*anakat*-ta.
 say]-NEG-PST
 ‘Mary said on no media that Hanako was smart.’ (= (16a))

The dative argument and the VP adjunct in (22) are located above *-mo* attached to the Report head *to*. (22a) and (22b) are difficult to accommodate if the indeterminate pronouns must be commanded by *-mo* (cf. (9)). (22) is analyzed as follows:

- (23) Matrix Dative Argument/VP Adjunct
- a. Step 1: Construction of the ReportP phase:
 [_{ReportP} [] Report]-*mo*
- b. Step 2: Merger of the matrix V and the dative argument/VP adjunct:
 [_{VP} *who/which* [_{ReportP} [] Report]-*mo* V]
- c. Step 3: Merger of the matrix *v* and the matrix subject:
 [_{VP} Subject [_{VP} *who/which* [_{ReportP} [] Report]-*mo* V] *v*]
- d. Step 4: Transfer of the VP:
 [_{VP} Subject [_{VP} *who/which* [_{ReportP} [] Report]-*mo* V] *v*]

I assume that the Report head *to* is a phase head (cf. Takeuchi 2010). This means that when the ReportP complement is constructed as in (23a), the complement of the Report head *to* undergoes Transfer: *to* and *-mo* escape Transfer (cf. Chomsky 2000). In (23b), the matrix V and the indeterminate dative argument, or the VP adjunct containing the indeterminate pronoun, are introduced into the derivation. In (23c), the matrix *v* and the matrix subject are introduced

into the derivation. In (23d), the matrix VP is transferred. Importantly, the dative argument, the VP adjunct, and *-mo* are in the same Transfer domain. The proposed condition (20) is met here.

This analysis correctly predicts that when the dative argument and the VP adjunct are moved above the subject, the indeterminate pronouns fail to be licensed. The relevant examples are repeated below:

(24) Movement of the Matrix Dative Argument/VP Adjunct

- a. * $\boxed{\text{Dare}_i}$ -ni Mary-ga [VP t_i [ReportP Hanako-ga kasiko-i to]- $\boxed{\text{mo}}$
 $\boxed{\text{who}}$ -DAT Mary-NOM [VP [ReportP Hanako-NOM smart-PRS Report]- $\boxed{\text{MO}}$
 iw]-**anakat-ta**.
 say]-**NEG-PST**

‘Mary told no one that Hanako was smart.’ (= (14b))

- b. * $\boxed{\text{Dono}}$ -baitai-de_i Mary-ga [VP t_i [ReportP Hanako-ga kasiko-i
 $\boxed{\text{which}}$ -media-on Mary-NOM [VP [ReportP Hanako-NOM smart-PRS
 to]- $\boxed{\text{mo}}$ iw]-**anakat-ta**.
 Report]- $\boxed{\text{MO}}$ say]-**NEG-PST**

‘Mary said on no media that Hanako was smart.’ (= (16b))

This case is analyzed as follows:

(25) Movement of the Matrix Dative Argument/VP Adjunct

- a. Step 3: Merger of the matrix v and the matrix subject (= (23c)):
 $[\nu\text{P}$ Subject [VP $\boxed{\text{who/which}}_i$ [ReportP [] Report]- $\boxed{\text{mo}}$ V] v]
- b. Step 4: Movement of the dative argument/VP adjunct:
 $[\nu\text{P}$ $\boxed{\text{who/which}}_i$ Subject [VP t_i [ReportP [] Report]- $\boxed{\text{mo}}$ V] v]
- c. Step 5: Transfer of the VP:
 * $[\nu\text{P}$ $\boxed{\text{who/which}}_i$ Subject [VP t_i [ReportP [] Report]- $\boxed{\text{mo}}$ V] v]

In (25a) (= (23c)), the matrix v and the matrix subject are introduced into the derivation. In (25b), the dative argument and the VP adjunct move to the νP edge. Importantly, in (25c), *-mo* is transferred within the matrix VP while the dative argument and the VP adjunct escape Transfer. The proposed condition (20) is not met here.

To summarize, in this subsection I have argued that an analysis of the distribution of indeterminate pronouns in terms of Transfer domains can account for not only the subject/object asymmetry in (19) but also the cases of the matrix elements in (22), which are difficult to accommodate under the c-command condition (cf. (9)).

2.3. Returning to the ECM Construction

In this subsection I provide an analysis of ECMed indeterminate subjects through the new condition defined on Transfer domains. I show that the availability of ECMed indeterminate pronouns can be accounted for under the obligatory raising analysis.

We have seen above that an ECMed indeterminate pronoun can be associated with *-mo* attached to the Report head *to*:

- (26) Argument for Optional Raising 1: ECMed Indeterminate Subject
 Mary-ga [Report dare-o kasiko-i to]-mo omottei-na-i.
 Mary-NOM [Report who-ACC smart-PRS Report]-MO think-NEG-PRS
 ‘Mary thinks that no one is smart.’ (= (5))

If the ECMed subject *dare* ‘who’ in (26) must be c-commanded by *-mo* (cf. (9)), the former must be in the ReportP complement, which in turn provides evidence for the optionality of raising (cf. (4)).

On the proposed analysis of indeterminate pronouns, however, (26) can be accounted for even if the ECMed subject obligatorily moves into the matrix VP:

- (27) Movement of the ECMed Indeterminate Subject
- a. Step 1: Movement to the ReportP edge and Transfer:
 [ReportP who_i [t_i] Report]-mo
 - b. Step 2: Merger of the matrix V and movement into the matrix VP:
 [VP who_i [ReportP t_i [t_i] Report]-mo V]
 - c. Step 3: Merger of the matrix *v* and the matrix subject:
 [vP Subject [VP who_i [ReportP t_i [t_i] Report]-mo V] v_[uφ]]
 - d. Step 4: Accusative Case assignment:
 [vP Subject [VP who_i-ACC [ReportP t_i [t_i] Report]-mo V_[uφ]] v]
 - e. Step 5: Transfer of the matrix VP:
 [vP Subject [VP who_i-ACC [ReportP t_i [t_i] Report]-mo V_[uφ]] v]

In (27a), the embedded subject moves to the edge of the ReportP phase. The complement of the Report head *to* undergoes Transfer: *to* and *-mo* escape Transfer. In (27b), the matrix V is introduced and the embedded subject moves into the matrix VP (cf. Chomsky 2015). In (27c), the matrix *v* and the matrix subject are introduced. In (27d), the embedded subject receives accusative Case from the matrix *v*/V. In (27e), the ECMed subject and *-mo* are transferred together. The proposed condition (20) is met here. The availability of ECMed indeterminates is thus consistent with the obligatory raising analysis.

The analysis correctly predicts that when the indeterminate ECMed subject precedes the matrix subject, the former fails to be associated with *-mo* attached to the Report head *to*. The relevant example is repeated below:

- (28) * $\begin{matrix} \boxed{\text{Dare}_i} & \text{-o} & \text{Mary-ga} & [\text{Report } t_i \text{ kasiko-i to}] & \boxed{\text{-mo}} & \text{omottei-na-i.} \\ \boxed{\text{who}} & \text{-ACC} & \text{Mary-NOM} & [\text{Report } \text{smart-PRS Report}] & \boxed{\text{-MO}} & \text{think-NEG-PRS} \end{matrix}$
 ‘Mary thinks that no one is smart.’ (= (12))

The ECMed indeterminate subject in (28) moves to the sentence-initial position and fails to be associated with *-mo*. This case is analyzed as follows:

- (29) Movement of the ECMed Indeterminate Subject into the Matrix vP
- a. Step 4: Accusative Case assignment (= (27d)):

$$[\text{vP } \text{Subject } [\text{VP } \boxed{\text{who}_i\text{-ACC}} [\text{ReportP } t_i \text{ [} t_i \text{] } \text{Report}]\text{-mo}} \text{V}_{[\text{u}\phi]} \text{v}]$$
 - b. Step 5: Movement into the matrix vP:

$$[\text{vP } \boxed{\text{who}_i\text{-ACC}} \text{Subject } [\text{VP } t_i \text{ [} t_i \text{] } \text{Report}]\text{-mo}} \text{V}_{[\text{u}\phi]} \text{v}]$$
 - c. Step 6: Transfer of the matrix VP:

$$* [\text{vP } \boxed{\text{who}_i\text{-ACC}} \text{Subject } [\text{VP } t_i \text{ [} t_i \text{] } \text{Report}]\text{-mo}} \text{V}_{[\text{u}\phi]} \text{v}]$$

In (29a)(= (27d)), the embedded subject receives accusative Case. Importantly, in (29b), the embedded subject moves to the edge of the matrix vP. In (29c), the matrix VP is transferred. Although *-mo* is transferred here, the ECMed subject escapes Transfer. The proposed condition is thus not met in (29c).

The proposed analysis thus makes a prediction, which is borne out by a novel set of data. On the proposed analysis, the ECMed indeterminate subject can be associated with *-mo* attached to the Report head *to* as long as the former stays within the matrix VP. It is then predicted that the ECMed indeterminate subject can precede a VP adverb but cannot precede a vP adverb. Let us first consider a case where the ECMed indeterminate subject moves across a VP adverb:

- (30) Movement of the ECMed Subject across a VP Adverb
- a. Step 1: Movement to the ReportP edge and Transfer:

$$[\text{ReportP } \boxed{\text{who}_i} \text{ [} t_i \text{] } \text{Report}]\text{-mo}$$
 - b. Step 2: Merger of the matrix V and the matrix VP adverb:

$$[\text{VP } \text{VP adverb} \text{ [} t_i \text{] } \text{Report}]\text{-mo}} \text{V} \text{ [} \boxed{\text{who}_i} \text{]}$$
 - c. Step 3: Movement into the matrix VP:

$$[\text{VP } \boxed{\text{who}_i} \text{ VP adverb} \text{ [} t_i \text{] } \text{Report}]\text{-mo}} \text{V} \text{ [} \text{]}$$
 - d. Step 4: Merger of the matrix v and the vP adverb:

$$[\text{vP } \text{vP adverb} \text{ [} t_i \text{] } \text{Report}]\text{-mo}} \text{V} \text{ [} \boxed{\text{who}_i} \text{ VP adverb} \text{ [} \text{ReportP } t_i \text{] } \text{v}_{[\text{u}\phi]} \text{]}$$
 - e. Step 5: Accusative Case assignment:

$$[\text{vP } \text{vP adverb} \text{ [} t_i \text{] } \text{Report}]\text{-mo}} \text{V}_{[\text{u}\phi]} \text{ [} \boxed{\text{who}_i\text{-ACC}} \text{ VP adverb} \text{ [} \text{ReportP } t_i \text{] } \text{v} \text{]}$$

f. Step 6: Transfer of the matrix VP:

[_{vP}	<u>vP adverb</u>	[_{VP} <u>who_i</u> -ACC	<u>VP adverb</u>	[_{ReportP} <u>t_i</u>
[<u>t_i</u>]	Report]- <u>mo</u>	V _[uφ]]	v]

In (30a), the embedded subject first moves to the edge of the ReportP phase and the Report head *to* and *-mo* escape Transfer. In (30b), the matrix V and the VP adverb are introduced. In (30c), the embedded subject moves across the VP adverb and stays within the matrix VP. In (30d), the matrix *v* and the vP adverb are introduced. In (30e), the embedded subject receives accusative Case from the matrix *v/V*. In (30e), the matrix VP is transferred. Given that the ECTMed subject and *-mo* are transferred together, cases like (30) should be acceptable. However, when the ECTMed indeterminate subject precedes both a vP adverb and a VP adverb, the ECTMed subject is on the vP edge, which should result in unacceptability:

(31) Movement of the ECTMed Subject across a vP Adverb

a. Step 5: Accusative Case assignment (= (30e)):

[_{vP}	<u>vP adverb</u>	[_{VP} <u>who_i</u> -ACC	<u>VP adverb</u>	[_{ReportP} <u>t_i</u>
[<u>t_i</u>]	Report]- <u>mo</u>	V _[uφ]]	v]

b. Step 6: Movement to the vP edge:

[_{vP} <u>who_i</u> -ACC	<u>vP adverb</u>	[_{VP} <u>t_i</u>	<u>VP adverb</u>	[_{ReportP} <u>t_i</u>
[<u>t_i</u>]	Report]- <u>mo</u>	V _[uφ]]	v]

c. Step 7: Transfer of the matrix VP:

[_{vP} <u>who_i</u> -ACC	<u>vP adverb</u>	[_{VP} <u>t_i</u>	<u>VP adverb</u>	[_{ReportP} <u>t_i</u>
[<u>t_i</u>]	Report]- <u>mo</u>	V _[uφ]]	v]

In (31a) (= (30e)), the embedded subject receives accusative Case. In (31b), the ECTMed subject moves to the edge of the matrix vP, crossing the vP adverb. In (31c), the matrix VP is transferred. As the ECTMed subject escapes Transfer, examples like (31) should be unacceptable.

The prediction in question is borne out. In the following example, an ECTMed indeterminate pronoun follows a vP adverb and a VP adverb:

(32) Mary-ga [_{vP} orokanimo [_{VP} tuyoku [_{ReportP/VP} dare-o kasiko-i
 Mary-NOM [_{vP} stupidly [_{VP} strongly [_{ReportP/VP} who-ACC smart-PRS
 to]-mo omottei]]-na-i.
 Report]-mo think]]-NEG-PRS

‘Mary stupidly does not strongly believe that anyone is smart.’

The ECTMed indeterminate pronoun *dare* ‘who’ in (32) follows a vP adverb *orokanimo* ‘stupidly’ and a VP adverb *tuyoku* ‘strongly’. Significantly, although the ECTMed indeterminate pronoun can precede the VP adverb *tuyoku* ‘strongly’, the former cannot precede the vP adverb *orokanimo* ‘stupidly’:

- (33) Movement of the ECMed Indeterminate Subject across Adverbs
- a. Mary-ga [VP orokanimo [VP dare_i-o tuyoku [ReportP/VP *t*_i kasiko-i
 Mary-NOM [VP stupidly [VP who-ACC strongly [ReportP/VP smart-PRS
 to]-mo omottei]]-na-i.
 Report]-mo think]]-NEG-PRS
- b. * Mary-ga [VP dare_i-o orokanimo [VP tuyoku [ReportP/VP *t*_i kasiko-i
 Mary-NOM [VP who-ACC stupidly [VP strongly [ReportP/VP smart-PRS
 to]-mo omottei]]-na-i.
 Report]-mo think-NEG-PRS

‘Mary stupidly does not strongly believe that anyone is smart.’

The ECMed indeterminate pronoun *dare* ‘who’ in (33a) is placed between *orokanimo* ‘stupidly’ and *tuyoku* ‘strongly’. By contrast, *dare* ‘who’ in (33b) precedes both of the adverbs. (33a) is better than (33b). The contrast between (33a) and (33b) bears out the prediction in question. It is notable that the contrast is also difficult to accommodate if *-mo* needs to c-command indeterminate pronouns, as the ECMed indeterminate pronoun in (33a) clearly fails to be c-commanded by *-mo* attached to the Report head *to*.

To summarize, in this section I have argued that the availability of ECMed indeterminate pronouns can be accounted for even if we assume that ECMed subjects obligatorily move into the matrix VP. I have also suggested that indeterminate pronouns are subject to the condition defined on Transfer domains.

3. Embedded Adjuncts: The “Free Ride” Effect in A-Movement

In this section I discuss the distribution of embedded adjuncts in the Japanese ECM construction. I argue that this distribution can be accounted for under the obligatory raising analysis. In particular, I argue that the distribution receives an account once we assume that A-movement allows adjuncts a “free ride”. This section also shows that A-movement in the raising-to-subject construction also allows adjuncts a “free ride”.

3.1. Embedded Adjuncts and the Japanese ECM Construction

An additional motivation for the optional raising analysis of the Japanese ECM construction concerns the distribution of embedded adjuncts (see Hiraiwa 2001 and Kobayashi and Maki 2002, among others). The relevant example is repeated below:

- (34) Argument for Optional Raising 2: Embedded Adjunct
 Mary-ga [Report [gakkyuu-iin kurai] Hanako-o mazime da
 Mary-NOM [Report [class-representative as] Hanako-ACC earnest COP
 to] omottei-ru.
 Report] think-PRS

‘Mary thinks that Hanako is as earnest as a class representative.’ (= (6))

The ECMed subject *Hanako* in (34) is preceded by the embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’. The ECMed subject is claimed to stay within the ReportP complement. However, this analysis presupposes that the embedded adjunct cannot be in the matrix clause. This is the assumption that I examine here. It is helpful to consider the following example, in which the embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’ and the ECMed subject follow a matrix VP adverb:

- (35) Mary-ga [VP tuyoku [gakkyuu-iin kurai] Hanako-o
 Mary-NOM [VP strongly [class-representative as] Hanako-ACC
 mazime da to omottei]-ru.
 earnest COP Report think]-PRS

‘Mary strongly believes that Hanako is as earnest as a class representative.’

Significantly, the embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’ can precede the matrix VP adverb *tuyoku* ‘strongly’ when the ECMed subject *Hanako* also precedes *tuyoku* ‘strongly’:

- (36) Embedded Adjunct and ECMed Subject across the Matrix VP Adverb
 a. * Mary-ga [VP [gakkyuu-iin kurai] tuyoku Hanako-o
 Mary-NOM [VP [class-representative as] strongly Hanako-ACC
 mazime da to omottei]-ru.
 earnest COP Report think]-PRS
 b. (?) Mary-ga [VP [gakkyuu-iin kurai] Hanako-o tuyoku
 Mary-NOM [VP [class-representative as] Hanako-ACC strongly
 mazime da to omottei]-ru.
 earnest COP Report think]-PRS

‘Mary strongly believes that Hanako is as earnest as a class representative.’

In (36a), *gakkyuu-iin kurai* ‘as a class representative’ alone precedes *tuyoku* ‘strongly’. In (36b), by contrast, both *gakkyuu-iin kurai* ‘as a class representative’ and the ECMed subject *Hanako* precede *tuyoku* ‘strongly’. (36b) is better than (36a). The contrast indicates that the embedded adjunct can move into the matrix VP under certain circumstances, contrary to the (tacit) assumption adopted in the optional raising analysis. The observations in this subsection are summarized below:

(40e), the embedded adjunct moves across the matrix VP adverb. Here, the embedded adjunct and the embedded subject move into the matrix clause independently. The unacceptability of (39) is thus subsumed under the ban on the long-distance movement of adjuncts (cf. Saito 1985; Bošković and Takahashi 1998).

Let us return to the case where both the embedded adjunct and the ECMed subject move into the matrix VP:

- (41) Movement of the Adjunct and the ECMed Subject across the Matrix VP Adverb
 (?) Mary-ga [VP [gakkyuu-iin kurai] Hanako-o tuyoku
 Mary-NOM [VP [class-representative as] Hanako-ACC strongly
 mazime da to omottei]-ru.
 earnest COP Report think]-PRS
 ‘Mary strongly believes that Hanako is as earnest as a class representative.’
 (= (36b))

I propose that this case is analyzed as an instance of a free ride effect in A-movement:

- (42) Movement of the Adjunct and the ECMed Subject across the Matrix VP Adverb
 a. Step 1: Constructing the embedded TP:
 $[_{TP} \quad NP_{Hanako} \quad Adjunct \quad]$
 b. Step 2: Merger of the adjunct and the embedded subject (i.e., free ride):
 $[_{TP} \quad [_{NP} \quad Adjunct_i \quad NP_{Hanako}] \quad t_i \quad]$
 c. Step 3: Movement of the embedded subject to the edge of the ReportP phase
 $[_{ReportP} \quad [_{NP} \quad Adjunct_i \quad NP_{Hanako}]_j \quad [_{TP} \quad t_j \quad t_i]]$
 d. Step 4: Merger of the matrix V and the matrix VP adverb:
 $[_{VP} \quad \quad \quad Adverb \quad [_{ReportP} \quad [_{NP} \quad Adjunct_i \quad NP_{Hanako}]_j \quad [_{TP} \quad t_j \quad t_i]] \quad V]$
 e. Step 5: Movement of the embedded subject into the matrix VP:
 $[_{VP} \quad [_{NP} \quad Adjunct_i \quad NP_{Hanako}]_j \quad Adverb \quad [_{ReportP} \quad \quad \quad t_j \quad [_{TP} \quad t_j \quad t_i]] \quad V]$

In (42a), the embedded adjunct and the embedded subject are introduced into the derivation. In (42b), the adjunct is merged with the subject (i.e., the adjunct gets a free ride; cf. Sohn 1994; Takano 2002, 2017). I assume that the resulting syntactic object is an NP (i.e., the adjunct is invisible). In (42c), the embedded subject with the adjunct moves to the edge of the ReportP phase. In (42d), the matrix V and the matrix VP adverb are introduced. In (42e), the embedded subject with the adjunct moves across the matrix VP adverb. Importantly, the embedded adjunct can move into the matrix VP without the illicit long-distance movement of adjuncts. The above analysis therefore shows that the embedded adjunct can move into the matrix VP, contrary to the (tacit) assumption adopted in the optional raising analysis.

3.3. Returning to the Argument for the Optional Raising Analysis

In this subsection I return to the example that motivated the optional raising analysis above and provide an analysis in terms of a free ride. The free ride analysis discussed above leads us to a reconsideration of the example that motivated the optional raising analysis:

- (43) Argument for Optional Raising 2: Embedded Adjunct
 Mary-ga [_{Report} [gakkyuu-iin kurai] Hanako-o mazime da
 Mary-NOM [_{Report} [class-representative as] Hanako-ACC earnest COP
 to] omottei-ru.
 Report] think-PRS
 ‘Mary thinks that Hanako is as earnest as a class representative.’ (= (34))

If the adjunct *gakkyuu-iin kurai* ‘as a class representative’ in (43) must be within the ReportP complement, then the ECMed subject must also be within the ReportP complement, which provides evidence for the optionality of raising in the ECM construction. However, the adjunct and the ECMed subject are adjacent in (43). (43) can thus be analyzed under the obligatory raising analysis once we assume that A-movement allows a free ride:

- (44) Reanalyzing (43) under the Obligatory Raising Analysis
- a. Step 1: Constructing the embedded TP:

$$[\text{TP NP}_{\text{Hanako}} \text{ Adjunct}]$$
 - b. Step 2: Merger of the adjunct and the embedded subject (i.e., “free ride”):

$$[\text{TP} [\text{NP Adjunct}_i \text{ NP}_{\text{Hanako}}] t_i]$$
 - c. Step 3: Movement of the embedded subject to the edge of the ReportP phase:

$$[\text{ReportP} [\text{NP Adjunct}_i \text{ NP}_{\text{Hanako}}]_j [\text{TP } t_j t_i]]$$
 - d. Step 4: Merger of the matrix V:

$$[\text{VP} [\text{ReportP} [\text{NP Adjunct}_i \text{ NP}_{\text{Hanako}}]_j [\text{TP } t_j t_i]] \text{ V}]$$
 - e. Step 5: Movement of the embedded subject into the matrix VP:

$$[\text{VP} [\text{NP Adjunct}_i \text{ NP}_{\text{Hanako}}]_j [\text{ReportP } t_j [\text{TP } t_j t_i]] \text{ V}]$$

In (44a), the embedded adjunct and the embedded subject are introduced into the derivation. In (44b), the embedded adjunct is merged with the embedded subject (i.e., the adjunct gets a free ride). In (44c), the embedded subject with the adjunct moves to the edge of the ReportP phase. In (44d) and (44e), the matrix V is introduced and the embedded subject with the adjunct moves into the matrix VP. The distribution of embedded adjuncts is thus consistent with the obligatory raising analysis.

3.4. A Further Prediction of the Free Ride Analysis

This subsection provides further evidence for the free ride analysis on the basis on an examination of the raising-to-subject construction in Japanese. I have argued that both A-movement and A'-movement allows adjuncts a free ride. The proposed analysis then predicts

that the free ride effect should be observed in the raising-to-subject construction, which involves A-movement into TP Spec. This point is schematically shown below:

- (45) Raising-to-Subject and Free Ride
- a. Step 1: Constructing the embedded clause:
[NP Adjunct]
 - b. Step 2: Merger of the adjunct and the embedded subject (i.e., “free ride”):
[[NP Adjunct_i NP] t_i]
 - c. Step 3: A-movement into TP Spec:
[TP [NP Adjunct_i NP]_j[NOM] [t_j t_i] T]

In (45a), the subject and the adjunct are introduced within the complement clause. In (45b), the adjunct is merged with the subject (i.e., the adjunct gets a free ride). Importantly, in (45c), the embedded subject with the adjunct moves into the matrix TP.

This prediction is indeed borne out. It is useful to first consider the following example of the raising-to-subject construction:

- (46) Raising-to-Subject in Japanese (cf. Ura 1994; Hiraiwa 2010; Takano 2015)
- a. [TP (*pro*) [VP kodomotati ni-yotte [Report [Yankiisu kurai]
[TP [VP children by [Report [Yankees as]
[ano tiimu-ga] tuyo-i to] omow-are-tei]-ru].
[the team-NOM] strong-PRS Report] think-PASS-ASP]-PRS]
 - b. [TP [Ano tiimu_i-ga] [VP kodomotati ni-yotte [Report [Yankiisu kurai] t_i
[TP [the team-NOM][VP children by [Report [Yankees as]
tuyo-i to] omow-are-tei]-ru].
strong-PRS Report] think-PASS-ASP]-PRS]
- ‘The team is thought to be as strong as the Yankees.’

In (46a), the NP *ano tiimu* ‘the team’ appears as the subject of the ReportP complement. The matrix TP Spec is occupied by the expletive *pro* (cf. Ura 1994; D. Takahashi 2000). In (46b), the NP *ano tiimu* ‘the team’ moves into the matrix TP. The adjunct *Yankiisu kurai* ‘as the Yankees’ stays in the ReportP complement. Significantly, the embedded adjunct *yankiisu kurai* ‘as the Yankees’ can move into the matrix TP only if the embedded subject also moves into the matrix TP:

- (47) Raising-to-Subject and Free Ride
- a. *? [TP [Yankiisu kurai]_i (*pro*) [VP kodomotati ni-yotte [Report t_i
[TP [Yankees as] [VP children by [Report
[ano tiimu-ga] tuyo-i to] omow-are-tei]-ru].
[the team-NOM] strong-PRS Report] think-PASS-ASP]-PRS]

- b. [TP [Yankiisu kurai]_i [ano tiimu_j-ga] [VP kodomotati ni-yotte
 [TP [Yankees as] [the team-NOM] [VP children by
 [Report *t_i* *t_j* tuyo-i to] omow-are-tei]-ru].
 [Report strong-PRS Report] think-PASS-ASP]-PRS]

‘The team is thought to be as strong as the Yankees.’

In (47a), the adjunct *Yankiisu kurai* ‘as the Yankees’ alone moves into the matrix TP. In (47b), both the subject *ano tiimu* ‘the team’ and the adjunct *Yankiisu kurai* ‘as the Yankees’ move into the matrix TP. (47b) is better than (47a). The unacceptability of (47a) is subsumed under the ban on the long-distance movement of adjuncts, whereas the acceptability of (47b) is accounted for in terms of a free ride:

(48) Raising-to-Subject and Free Ride

- a. Step 1: Constructing the embedded TP:

[TP NP_{the team} Adjunct]

- b. Step 2: Merger of the adjunct and the embedded subject (i.e., free ride):

[TP [NP Adjunct_i NP_{the team}] *t_i*]

- c. Step 3: Movement of the embedded subject to the edge of the ReportP phase:

[ReportP [NP Adjunct_i NP_{the team}]_j [TP *t_j* *t_i*]]

- d. Step 4: Constructing the matrix VP and the matrix TP:

[TP [VP by-phrase [ReportP [NP Adjunct_i NP_{the team}]_j [TP *t_j* *t_i*]]] T]

- e. Step 5: Movement of the embedded subject into the matrix TP:

[TP [NP Adjunct_i NP_{the team}]_j [VP by-phrase [ReportP *t_j* [TP *t_j* *t_i*]]] T]

In (48a), the subject and the adjunct are introduced within the embedded TP. In (48b), the adjunct is merged with the subject (i.e., the adjunct gets a free ride). In (48c), the subject with the adjunct moves to the edge of the ReportP phase. In (48d), the matrix VP and the matrix TP are constructed. In (48e), the subject with the adjunct moves into the Spec of the matrix TP. We can thus conclude that A-movement in general allows adjuncts a free ride.

4. Conclusion

I have argued that the two observations used to support the optionality of raising in the Japanese ECM construction can be accounted for even if we assume that raising is obligatory. In particular, it has been argued that the distribution of ECMed indeterminate pronouns and the distribution of embedded adjuncts can be accounted for under the obligatory raising analysis once we assume that (i) the distribution of indeterminate pronouns is analyzed in terms of a condition defined on Transfer domains, and (ii) A-movement allows adjuncts a free ride.

At this point, many questions remain open. Among these is the status of Agree for Case-licensing in Japanese. Recall that the optional raising analysis crucially relies on Agree for Case-licensing of the ECMed subjects:

- (49) Optional Raising Analysis (cf. Hiraiwa 2001, 2005) (= (4))
- [_vP [_{ReportP} Hanako_{[iφ][ACC]} []] Report] V_[±φ] v]
- ↑
Agree

When the ECMed subject stays within the ReportP complement, the former must receive accusative Case via Agree (but see Taguchi 2015 and Abe 2016). As (two of the) major arguments for the optional raising analysis and Agree can be reanalyzed without assuming the optionality of raising or Agree, it is worth considering if Agree is really operative for Case-licensing in Japanese (see Hiraiwa 2001, 2005, Nomura 2005, Ura 2007, Takahashi 2011, 2017, and Saito 2016, for discussion). I leave the question open for my future research.

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