

ACCUSATIVE SUBJECTS IN JAPANESE ECM CONSTRUCTIONS*

Masahiko Takahashi
Yamagata University

1. Introduction

This paper discusses the distribution of accusative subjects in Japanese exceptional Case-marking (ECM) constructions. It is well known that an embedded subject can receive accusative Case from a matrix predicate in certain contexts (see Kuno 1976):

- (1) Mary-ga [Hanako-ga/o mazime-da to] omot-tei-ru.
Mary-NOM [Hanako-NOM/ACC earnest-COP C] think-GER-PRS

‘Mary thinks that Hanako is earnest.’

The embedded subject *Hanako* in (1) can receive either nominative Case or accusative Case. Example (1) with an accusative subject is an instance of the ECM construction. While several analyses have been proposed for the Japanese ECM construction, they can be classified into three major types: (1) the obligatory-raising analysis, in which accusative subjects obligatorily move from complement clauses into matrix clauses (e.g., Kuno 1976, 2007, Sakai 1998, Tanaka 2002), (2) the optional-raising analysis, in which the movement of accusative subjects into matrix clauses is optional (e.g., Kaneko 1988, Hiraiwa 2001, 2005, Takeuchi 2010, Kishimoto 2018, 2020), and (3) the major-object analysis, in which accusative subjects are base-generated in matrix clauses as “major objects” (e.g., Saito 1983, 1985, Hoji 1991, 2005, Oka 1988, Takano 2003).

In this paper, I propose a new analysis of the distribution of embedded adjuncts, which has been taken as evidence for the optional-raising analysis (see Hiraiwa 2001 and Kobayashi and Maki 2002), and discuss several implications. In particular, I argue that embedded adjuncts can get a “free ride” to matrix clauses by being adjoined to accusative subjects (see Saito 1994 and Sohn 1994 for free ride). I then show that the free-ride analysis makes the distribution of embedded adjuncts consistent with the obligatory-raising analysis but not with the major-object analysis. Furthermore, I discuss cases in which accusative subjects accompany *no koto* ‘GEN fact’ and show that such cases require both the obligatory/optional-raising analysis and the major-object analysis. The remainder of this paper is organized as follows. In Section 2, I

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propose a free-ride analysis of the distribution of embedded adjuncts and show that the distribution in question can be made consistent with the obligatory-raising analysis. In Section 3, I point out that the free-riding of the adjuncts obeys the clausemate condition and show that the distribution of embedded adjuncts is inconsistent with the major-object analysis even if we adopt the free-ride analysis developed in Section 2. In Section 4, I discuss cases in which accusative subjects accompany *no koto* and show that such cases indeed necessitate both the obligatory/optional-raising analysis and the major-object analysis. Section 5 concludes the paper.

2. A Free-Ride Analysis of Embedded Adjuncts and the Optionality of Raising

2.1. Raising Analyses and the Distribution of Embedded Adjuncts

The obligatory-raising analysis dictates that raising of the accusative subject is obligatory.¹ (1) can thus be analyzed as follows (see Kuno 1976, 2007, Sakai 1998, and Tanaka 2002):

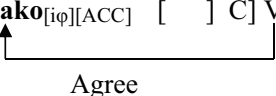
- (2) Obligatory-raising analysis
 $[_{VP} [_{VP} \text{Hanako}_i [_{CP} t_i [_{TP} t_i T] C] V] v]$

The accusative subject *Hanako* moves into the matrix clause through the edge of the CP complement (see Tanaka 2002). That the accusative subject is in the matrix clause is evidenced by the fact that the former can precede a matrix adjunct:

- (3) Mary-ga $[_{VP} \text{Hanako}_i\text{-o}$ *tuyoku* $[_{CP} t_i$ $[_{TP} t_i$ *mazime-da*] *to*]
 Mary-NOM $[_{VP} \text{Hanako-ACC}$ *strongly* $[_{CP}$ $[_{TP}$ *earnest-COP*] C]
omot]-tei-ru.
 think]-GER-PRS

‘Mary strongly believes that Hanako is earnest.’

As the accusative subject *Hanako* precedes the matrix adjunct *tuyoku* ‘strongly’, the former must be located in the matrix clause (after movement).² In the optional-raising analysis, however, the accusative subject can stay within the CP complement. (1) can thus be analyzed as follows (see Kaneko 1988, Hiraiwa 2001, 2005, Takeuchi 2010, and Kishimoto 2018, 2020):

- (4) Optional-raising analysis
 $[_{VP} [_{VP} [_{CP} \text{Hanako}_{[i\phi][ACC]} [\] C] V_{[u\phi]}] v]$


The accusative subject *Hanako* in (4) receives Case via Agree (see Chomsky 2000) within the

¹ Section 2 is based on Takahashi (2018, to appear).

² Example (3) is also consistent with the major-object analysis, in which the accusative subject is base-generated in the matrix VP.

CP complement. The optional-raising analysis is claimed to be supported by the distribution of embedded adjuncts (see Hiraiwa 2001 and Kobayashi and Maki 2002):

- (5) Mary-ga [CP [gakkyuu-iin kurai] Hanako-o mazime da to]
 Mary-NOM [CP [class-representative as] Hanako-ACC earnest COP C
 omot-tei-ru.
 think-GER-PRS

‘Mary thinks that Hanako is as earnest as a class representative.’
 (based on Kobayashi and Maki 2002: 218)

The accusative subject *Hanako* in (5) follows the embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’. Examples such as (5) have thus been taken as evidence that accusative subjects in ECM constructions can stay within CP complements, which supports the optional-raising analysis.³

While facts as in (5) are certainly important, the argument for the optional-raising analysis based on (5) at least implicitly assumes the following (see also Kuno 2007):

- (6) Embedded adjuncts cannot move into matrix clauses.

In the following, I examine (6) and show that (6) does not always hold. I first consider the following example, in which both the embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’ and the accusative subject *Hanako* follow the matrix VP adverb *tuyoku* ‘strongly’:

- (7) Mary-ga [VP tuyoku [gakkyuu-iin kurai] Hanako-o
 Mary-NOM [VP strongly [class-representative as] Hanako-ACC
 mazime da to omot]-tei-ru.
 earnest COP C think]-GER-PRS

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

Interestingly, the embedded adjunct can precede the matrix VP adverb when the accusative subject also precedes the matrix VP adverb:

- (8) a. Mary-ga [VP [gakkyuu-iin kurai] Hanako-o tuyoku
 Mary-NOM [VP [class-representative as] Hanako-ACC strongly
 mazime da to omot]-tei-ru.
 earnest COP C think]-GER-PRS

³ See Hiraiwa (2001, 2005) for other arguments for the optional-raising analysis. For examination of such arguments, see Tanaka (2002), Kuno (2007), Kishimoto (2018, 2020), and Takahashi (2018, to appear).

- b. *Mary-ga [VP [gakkyuu-iin kurai] tuyoku Hanako-o
 Mary-NOM [VP [class-representative as] strongly Hanako-ACC
 mazime da to omot]-tei-ru.
 earnest COP C think]-GER-PRS

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

In (8a), both *gakkyuu-iin kurai* ‘as a class representative’ and *Hanako* precede *tuyoku* ‘strongly’. In contrast, in (8b), only *gakkyuu-iin kurai* precedes *tuyoku*. (8a) is more acceptable than (8b).⁴ The contrast indicates that the embedded adjunct can move into the matrix VP under certain circumstances, contrary to the (tacit) assumption (6) adopted in the optional-raising analysis.

2.2. A Free-Ride Analysis

I propose a new analysis of the distribution of embedded adjuncts, which relies on the availability of a “free ride” in raising/A-movement. It is well known that adjuncts can undergo otherwise illicit long-distance A’-movement when they move together with arguments (i.e., A’-movement of arguments allows adjuncts a “free ride”) (see Sohn 1994 and Saito 1994, among others). Following this insight, I propose (9):

- (9) Not only A’-movement but also A-movement allows adjuncts a free ride.

I now consider how the above observations are accounted for. The case in which the embedded adjunct alone precedes the matrix adverb (see (8a)) is analyzed as follows:

- (10) * $[_{VP} \text{Adjunct}_j \text{ Adverb } \text{NP}_{i\text{Hanako}} \text{ } [_{CP} \text{ } t_i \text{ } t_j \text{ } [_{TP} \text{ } t_i \text{ } t_j \text{ }]]] \text{ V}$

Here, the embedded adjunct and the embedded subject independently move into the matrix clause through the edge of the CP complement. I assume that the unacceptability of (8b) is attributed to the illicit long-distance scrambling of the embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’, leaving open its theoretical explanation.⁵ Let us now return to the case in which both the embedded adjunct and the accusative subject precede the matrix adverb (see (8a)). I suggest that this case should be analyzed in terms of free ride:

- (11) a. Merger of the adjunct and the embedded subject: $[_{TP} \text{ } [_{NP} \text{Adjunct}_i \text{ NP}_{\text{Hanako}}] \text{ } t_i \text{ }]$
 b. Movement of the embedded subject into the matrix VP:
 $[_{VP} \text{ } [_{NP} \text{Adjunct}_i \text{ NP}_{\text{Hanako}}]_j \text{ Adverb } [_{CP} \text{ } t_j \text{ } [_{TP} \text{ } t_j \text{ } t_i \text{ }]]] \text{ V}$

⁴ (8b) is acceptable when *gakkyuu-iin kurai* ‘as a class representative’ is interpreted as a matrix adjunct; in this interpretation, (8b) means ‘Mary believes that Hanako is earnest as strongly as a class representative does’. I set aside this interpretation as it is orthogonal to the discussion in the text.

⁵ I do not intend to claim that long-distance scrambling of adjuncts always yields degradation. See Saito (1985), Bošković and Takahashi (1998), and Boeckx and Sugisaki (1999), for relevant discussion.

In (11a), the adjunct is merged with the subject. I assume that the resulting syntactic object is an NP. In (11b), the embedded subject with the adjunct moves into the matrix VP through the CP edge, crossing the matrix VP adverb.⁶ Importantly, what is involved in (11b) is not illicit long-distance movement of adjuncts but the raising/A-movement of the accusative subject. Therefore, the above free-ride analysis accounts for the contrast between (8a) and (8b).

2.3. Reconsidering the Argument for the Optional-Raising Analysis

The above free-ride analysis leads us to a reconsideration of the example that motivated the optional-raising analysis. The relevant example is repeated below:

- (12) Mary-ga [CP[gakkyuu-iin kurai] Hanako-o mazime da to]
 Mary-NOM [CP[class-representative as] Hanako-ACC earnest COP C
 omot-tei-ru.
 think-GER-PRS

‘Mary thinks that Hanako is as earnest as a class representative.’ (= (5))

If the embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’ in (12) stays within the CP complement (see (6)), then the accusative subject *Mary* stays within the CP complement, which provides evidence for the optionality of raising in the ECM construction. However, the adjunct and the ECMed subject are adjacent in (12). (12) can thus be analyzed under the obligatory-raising analysis once we assume that raising/A-movement allows a free ride:

- (13) a. Merger of the adjunct and the embedded subject: [TP [NPAdjunct_i NP_{Hanako}] t_i]
 b. Movement of the embedded subject into the matrix VP:
 [VP[NPAdjunct_i NP_{Hanako}]_j [CP t_j [TP t_j t_i]]] V]

In (13a), the embedded adjunct is merged with the embedded subject. In (13b), the embedded subject with the adjunct moves into the matrix VP through the edge of the CP complement. Note that the movement involved in (13b) is not an illicit movement of the embedded adjunct, but the raising/A-movement into the matrix VP. The distribution of embedded adjuncts is thus consistent with the obligatory-raising analysis.

3. Free-Riding of Embedded Adjuncts and the Major-Object Analysis

I argued above that embedded adjuncts can be adjoined to accusative subjects within CP complements; accusative subjects then move into matrix clauses together with the free-riding adjuncts. What is implicit in this analysis is that the adjunction operation in question obeys the clausemate condition (see Koizumi 2000 and Takano 2002): the embedded adjuncts cannot be

⁶ I do not discuss how accusative subjects receive Case from matrix predicates. See Hiraiwa (2001, 2005), among others, for discussion.

directly adjoined to matrix elements. That the clausemate condition in question is operative is evidenced by the following examples that involve the causative construction:

- (14) a. Ano dekgoto-ga [VP [VP [NP Mary]-o [CP [TP Hanako-ga
that incident-NOM [VP [VP [NP Mary]-ACC [CP [TP Hanako-NOM
[gakkyuu-iin kurai mazime da] to] omow]-ase]-ta.
[class-representative as] earnest COP] C] think]-cause]-PST
- b. *Ano dekgoto-ga [VP [VP [NP [gakkyuu-iin kurai]_i [NP Mary]]-o
that incident-NOM [VP [VP [NP [class-representative as] [NP Mary]]-ACC
[CP *t_i* [TP Hanako-ga *t_i* mazime da] to] omow]-ase]-ta.
[CP [TP Hanako-NOM earnest COP] C] think]-cause]-PST

‘That incident made Mary think that Hanako is as earnest as a class representative.’

The matrix causative predicate *-(s)ase* ‘cause’ in (14) selects *omow* ‘think’. Furthermore, while the former selects the accusative causee *Mary*, the latter selects the CP complement; *Mary* is base-generated above the CP complement.⁷ While the embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’ in (14a) stays within the embedded CP, *gakkyuu-iin kurai* in (14b) moves into the matrix VP through the CP edge and is adjoined to *Mary*. (14a) is more acceptable than (14b). The contrast indicates that the adjunction operation in question cannot take place across a clause boundary, which suggests that it must obey the clausemate condition.⁸

The clausemate condition has an important implication for the ECM construction. In addition to the obligatory-raising analysis and the optional-raising analysis discussed in the previous section, ECM constructions are often analyzed in terms of the major-object analysis, in which accusative subjects are base-generated in matrix VPs (see Saito 1983, 1985, Hoji 1991, 2005, Oka 1988, and Takano 2003). (1) is analyzed under the major-object analysis as follows:

- (15) Major-object analysis
[VP [VP **Hanako**_i [CP [TP *pro*_i T] C] V] *v*]

The accusative “subject” *Hanako* is base-generated as the matrix object and binds *pro* in the CP complement. Of importance here is the claim from the previous section that an embedded adjunct can be adjoined to an accusative subject. If we adopt the major-object analysis, the embedded adjunct must independently move into the matrix clause:

- (16) Mary-ga [VP[NP [gakkyuu-iin kurai]_j Hanako]_i-o
Mary-NOM [VP[NP [class-representative as] Hanako]-ACC
[CP *t_j* [TP *pro*_i *t_j* mazime da to] omot-tei-ru.
[CP [TP earnest COP] C] think-GER-PRS

⁷ See Miyagawa (1999) for the causative construction.

⁸ Note that *gakkyuu-iin kurai* ‘as a class representative’ alone cannot move into the matrix VP due to the ban on long-distance movement of *gakkyuu-iin kurai* (see (8b) and (10)).

The embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’ in (16) moves into the matrix VP through the CP edge and is adjoined to the major object *Hanako*. However, this derivation should be excluded because the adjunction operation in question violates the clausemate condition; (16) should be comparable to (14b). Therefore, under the free-ride analysis developed above, examples such as (12) favor the optional/obligatory-raising analysis (see (13)) over the major-object analysis.

4. The Clausemate Condition and Accusative Subjects with *no koto*

In this section, I discuss accusative subjects with *no koto* ‘GEN fact’ based on the clausemate condition discussed in the previous section. Accusative subjects in ECM constructions can accompany *no koto* (see Sasaguri 1999 and Takubo 2007 for properties of *no koto*).

- (17) a. *Mary-ga [Hanako-no-koto-ga mazime-da to] omot-tei-ru.
 Mary-NOM [Hanako-GEN-fact-NOM earnest-COP C] think-GER-PRS
- b. Mary-ga [Hanako-no-koto-o mazime-da to] omot-tei-ru.
 Mary-NOM [Hanako-GEN-fact-ACC earnest-COP C] think-GER-PRS
- ‘Mary thinks that Hanako is earnest.’

While the nominative subject cannot accompany *no koto*, as in (17a), the accusative subject can accompany *no koto*, as in (17b). Assuming that *no koto* can only be accompanied by direct objects, Kuno (1976) argues that examples such as (17b) provide evidence that accusative subjects obligatorily raise into matrix VPs. On the other hand, capitalizing on the observation that *no koto* is sometimes selected by predicates, authors like Kishimoto (2018, 2020) and Nakajima (2018) argue that examples such as (17b) should be analyzed in terms of the major-object analysis, in which accusative subjects are base-generated in matrix VPs. In this section, I claim that cases such as (17b) require both the obligatory/optional-raising analysis and the major-object analysis based on (i) the distribution of embedded adjuncts and (ii) the observation that *no koto* should be divided into two types.

Before discussing (17b), I confirm that *no koto* accompanied by accusative NPs is divided into two types depending on whether or not *no koto* is selected by predicates (see Sasaguri 1999, Takubo 2007, Kishimoto 2018, and Nakajima 2018). First, there are cases where the presence of *no koto* is optional:

- (18) Mary-ga Hanako-(no-koto)-o nagut-ta.
 Mary-NOM Hanako-GEN-fact-ACC earnest-PST
- ‘Mary hit Hanako.’

The presence or absence of *no koto* does not affect the acceptability of (18), which suggests that the verb *nagur* ‘hit’ does not require *no koto*. This type of *no koto* cannot be retained if

host direct objects become subjects via passivization:

- (19) Hanako-(*no-koto)-ga Mary-ni yotte nagur-are-ta.
 Hanako-GEN-fact-NOM Mary-by hit-PASS-PST
 ‘Hanako was hit by Mary.’

On the other hand, there are cases in which the presence of *no koto* is obligatory.

- (20) Mary-ga Hanako-*(no-koto)-o hanasi-ta.
 Mary-NOM Hanako-GEN-fact-ACC talk-PST
 ‘Mary talked about Hanako.’

The absence of *no koto* in (20) results in degradation, which suggests that, in this case, *no koto* is required by the verb *hanas* ‘talk’. This type of *no koto* must be retained even after the host direct objects become subjects via passivization:

- (21) Hanako-*(no-koto)-ga Mary-ni yotte hanas-are-ta.
 Hanako-GEN-fact-NOM Mary-by talk-PASS-PST
 ‘Hanako was talked about by Mary.’

Based on the above dichotomy of *no koto*, let us now consider accusative subjects with *no koto*. First, as noted by Kishimoto (2018) and Nakajima (2008), the accusative subjects can accompany *no koto* after passivization. We obtain the following example when (17b) is passivized:

- (22) ?Hanako-no-koto-ga Mary-ni yotte mazime da to omow-are-tei-ta.
 Hanako-GEN-fact-NOM Mary-by earnest COP C think-PASS-GER-PST
 ‘Hanako was thought to be earnest by Mary.’

(22) is clearly more acceptable than (19), which suggests that (22) should be treated similarly to (21). This, in turn, means that *no koto* in (22) is selected by the matrix predicate *omow* ‘think’. Therefore, we can analyze the accusative NP with *no koto* as the major object selected by the matrix predicate. (17b) is analyzed as follows (see Kishimoto 2018, 2020 and Nakajima 2018):

- (23) Mary-ga [_{VP} Hanako_i-no-koto-o [_{CP} *pro_i* mazime-da to] omot]-tei-ru.
 Mary-NOM [_{VP} Hanako-GEN-fact-ACC [_{CP} earnest-COP C] think]-GER-PRS
 ‘Mary thinks that Hanako is earnest.’

The accusative NP *Hanako* in (23) is base-generated as the major object within the matrix VP and binds *pro* in the CP complement.

This analysis is supported by the case in which the CP complement is moved to the sentence-initial position. It is well known that accusative subjects without *no koto* cannot be preceded

by CP complements (see Kuno 1976). This observation is often analyzed in terms of the Proper Binding Condition (PBC), which requires traces to be bound (see Tanaka 2002 and Hiraiwa 2005 for discussion; see Fiengo 1977 and Saito 1989 for the PBC):

- (24) * $[_{CP} t_i [_{TP} t_i \text{mazime-da}] \text{to}]_j$ Mary-ga $[_{VP} \underline{\text{Hanako-i-o}} t_j \text{omot}]$ -tei-ru.
 $[_{CP} [_{TP} \text{earnest-COP}] \text{C}]$ Mary-NOM $[_{VP} \underline{\text{Hanako-ACC}} \text{think}]$ -GER-PRS
 ‘Mary thinks that Hanako is earnest.’

The CP complement in (24) is fronted to the sentence-initial position. If the accusative subject *Mary* moves from the CP complement into the matrix VP, the moved CP contains an unbound trace, which violates the PBC. Interestingly, as Kishimoto (2018, 2020) notes, when an accusative subject accompanies *no koto*, the movement of the CP complement to the sentence-initial position does not result in degradation. According to Kishimoto (2018, 2020), this observation follows if accusative subjects with *no koto* are base-generated within matrix VPs:

- (25) $[_{CP} [_{TP} \text{pro}_i \text{mazime-da}] \text{to}]_j$ Mary-ga $[_{VP} \underline{\text{Hanako-i-no-koto-o}} t_j$
 $[_{CP} [_{TP} \text{earnest-COP}] \text{C}]$ Mary-NOM $[_{VP} \underline{\text{Hanako-GEN-fact-ACC}}$
 omot]-tei-ru.
 think]-GER-PRS
 ‘Mary thinks that Hanako is earnest.’

As the accusative NP *Hanako* in (25) does not move from the CP complement, the latter does not contain an unbound trace. Therefore, we can conclude that accusative NPs with *no koto* in ECM constructions are major objects selected by matrix predicates. Recall, however, that there are indeed two types of *no koto* accompanied by direct objects; while the acceptability of (25) suggests that *no koto* in (17b) can be the obligatory instance of *no koto* (see (20)), which is selected by the matrix predicate, there is still a possibility that *no koto* in (17b) can be the optional instance of *no koto* (see (18)), which is not selected by the matrix predicate. In the following, I explore this latter possibility.

As shown below, an embedded adjunct can precede a matrix adverb when an accusative subject with *no koto* also precedes the matrix adjunct:

- (26) a. Mary-ga $[_{VP} \text{gakkyuu-iin} \quad \text{kurai}] \text{Hanako-no-koto-o}$
 Mary-NOM $[_{VP} \text{class-representative as}] \quad \text{Hanako-GEN-fact-ACC}$
 tuyoku mazime da to omot]-tei-ru.
 strongly earnest COP C think]-GER-PRS
 b. *Mary-ga $[_{VP} \text{gakkyuu-iin} \quad \text{kurai}] \text{tuyoku Hanako-no-koto-o}$
 Mary-NOM $[_{VP} \text{class-representative as}] \quad \text{strongly Hanako-GEN-fact-ACC}$
 mazime da to omot]-tei-ru.
 earnest COP C think]-GER-PRS
 ‘Mary strongly believes that Hanako is as earnest as a class representative.’

In (26a), both the embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’ and the accusative subject *Hanako* precede the matrix adverb *tuyoku* ‘strongly’. In contrast, in (26b), only *gakkyuu-iin kurai* precedes *tuyoku*.⁹ (26a) is more acceptable than (26b). Of importance here is the observation that the adjunction of an embedded adjunct to an accusative subject obeys the clausemate condition (see (14)). If accusative subjects with *no koto* were always base-generated as major objects in matrix VPs, (26a) should be analyzed as follows:

- (27) * Mary-ga [VP[NP[gakkyuu-iin kurai]_j [NPHanako_i-no-koto]-o
 Mary-NOM [VP[NP[class-representative_{as}] [NPHanako-GEN-fact]-ACC
 tuyoku [CP t_j [TP pro_i t_j mazime da to]omot]-tei-ru
 strongly [CP [TP earnest COP C] think]-GER-PRS

Gakkyuu-iin kurai ‘as a class representative’ in (27) moves into the matrix VP and is adjoined to the major object *Hanako*. However, this derivation should be excluded because it violates the clausemate condition. Therefore, cases such as (26a) and (27) necessitate the obligatory/optional-raising analysis, in which the accusative subject is base-generated within the CP complement. Here, I adopt the obligatory-raising analysis for the sake of exposition and analyze (26a) as in (28):¹⁰

- (28) a. Merger of the adjunct and the embedded subject: [TP [NP Adjunct_i NP_{Hanako}] t_i]
 b. Movement of the embedded subject and insertion of *no koto*:
 [VP [NP Adjunct_i NP_{Hanako} *no koto*]_j Adverb [CP t_j [TP t_j t_i]] V]

The embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’ is first adjoined to the embedded subject *Hanako* within the CP complement (see (28a)). The embedded subject *Hanako*, together with *gakkyuu-iin kurai*, then moves into the matrix VP. *No koto* is then added to *Hanako* (see (28b)) If the above analysis is correct, the obligatory/optional-raising analysis is needed in addition to the major-object analysis when accusative subjects accompany *no koto*.

The raising analysis in (28) is supported by several novel observations. First, the raising analysis in (28) predicts that (26a) cannot be passivized. Recall that *no koto*, when not selected by a predicate, cannot be retained when the host internal argument is promoted to the subject via passivization (see (19)). As *no koto* in (26a) is not selected by the matrix predicate, the prediction is that the passive counterpart of (26a) is degraded. This prediction is borne out:

⁹ Again, I set aside the interpretation of (26b) in which ‘as a class representative’ is understood as a matrix adjunct. See fn. 4.

¹⁰ If we adopt the optional-raising analysis, *no koto* may be added to the accusative subject that is moved to the edge of the CP complement. Therefore, I assume that the discussion in this section is consistent with both the obligatory-raising analysis and the optional-raising analysis. I leave the precise mechanism of *no koto* insertion open.

- (29) a. [TP [NP **gakkyuu-iin kurai**] [NP **Hanako**]]_i-ga [vP Mary-ni yotte
[TP [NP **class-representative as**] [NP **Hanako**]]-NOM [vP Mary-by
[CP *t*_i [TP *t*_i mazime da] to] omow-are]-tei-ru].
[CP [TP earnest COP] C] think-PASS]-GER-PRS]
- b. *[TP [NP **gakkyuu-iin kurai**] [NP **Hanako-no-koto**]]_i-ga
[TP [NP **class-representative as**] [NP **Hanako-GEN-fact**]]-NOM
[vP Mary-ni yotte [CP *t*_i [TP *t*_i mazime da] to] omow-are]-tei-ru].
[vP Mary-by [CP [TP earnest COP] C] think-PASS]-GER-PRS]

‘Hanako is thought by Mary to be as earnest as a class representative.’

(29a) is the passive counterpart of (12), in which the accusative subject *Mary* appears without *no koto*. (29b) is the passive counterpart of (26a). The degradedness of (29b) follows given that (29b) involves the optional instance of *no koto*, which cannot be retained after passivization.

The proposed analysis also predicts that *no koto* accompanied by the accusative subject can be retained after passivization when the embedded adjunct stays within the CP complement. Note that the accusative subject with *no koto* does not have to originate in the CP complement when the embedded adjunct is not adjoined to the accusative subject; the accusative subject does not have to satisfy the clausemate condition. It is then possible that *no koto* accompanied by the accusative subject in such a case is selected by the matrix predicate (i.e., the accusative NP is the major object; see (23)). Given that *no koto*, when selected by a predicate, must be retained after passivization (see (21)), we predict that *no koto* accompanied by an accusative subject can be retained after passivization when the embedded adjunct stays within the CP complement. This prediction is also borne out:

- (30) ?[TP[NP **Hanako_i-no-koto**]-ga [vP Mary-ni yotte [VP *t*_i [CP [TP
[TP [NP **Hanako-GEN-fact**]]-NOM [vP Mary-by [VP [CP [TP
gakkyuu-iin kurai *pro*_i mazime da] to] omow]-are]-tei-ru].
[**class-representative as**] earnest COP] C] think]-PASS]-GER-PRS]

‘Hanako is thought by Mary to be as earnest as a class representative.’

The nominative subject *Hanako* in (30) can retain *no koto* after passivization. Here, *Hanako* is base-generated as the major object and binds *pro* in the CP complement.

Furthermore, the above analysis predicts that there should be a violation of the Proper Binding Condition when the CP complement in (26a) is moved to the sentence-initial position. This is because the fronted CP complement must contain unbound traces of the accusative subject and the embedded adjunct. This prediction is borne out as well:

- (31) a. [CP [TP [**gakkyuu-iin** **kurai**] *pro*_i mazime-da] to]_j Mary-ga
 [CP [TP [**class-representative as** earnest-COP] C] Mary-NOM
 [VP Hanako_i-no-koto-o *t*_j omot]-tei-ru.
 [VP Hanako-GEN-fact-ACC think]-GER-PRS
- b. *[CP *t*_i [TP *t*_i *t*_j mazime-da] to]_k Mary-ga [VP [NP [**gakkyuu-iin** **kurai**]_j
 [CP [TP earnest-COP] C] Mary-NOM [VP [NP [**class-representative as**
 [NP Hanako_i-no-koto]]-o *t*_k omot]-tei-ru.
 [NP Hanako-GEN-fact]]-ACC think]-GER-PRS

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

The embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’ in (31a) stays within the CP complement. The accusative subject *Hanako* thus does not have to move into the matrix VP from within the CP complement (i.e., the accusative subject does not have to satisfy the clausemate condition). *Hanako* can thus be base-generated as the major object that binds *pro* in the CP complement. As the fronted CP does not contain any unbound traces, (31a) is acceptable. On the other hand, in (31b), *gakkyuu-iin kurai* is adjoined to *Hanako*. Given the clausemate condition, *gakkyuu-iin kurai* is first adjoined to *Hanako* within the CP complement, and *gakkyuu-iin kurai Hanako* as a single NP moves into the matrix VP, where *no koto* is inserted. As the fronted CP contains the unbound traces of *gakkyuu-iin kurai* and *Hanako*, (31b) violates the PBC.¹¹

Finally, the proposed analysis makes correct predictions about the specificity of accusative subjects with *no koto*.¹² As observed by Sasaguri (1999) and Takubo (1997), hosts of the optional instance of *koto* must be specific:

- (32) a. Mary-ga sono raion-no koto-o nagut-ta.
 Mary-NOM the lion-GEN fact-ACC earnest-PST

¹¹ As Mamoru Saito (personal communication) points out, (31b) has an alternative derivation in which *Hanako* is base-generated as the major object. In this alternative, *gakkyuu-iin kurai* ‘as a class representative’ alone moves into the matrix VP and is adjoined to *Hanako*, which is followed by the movement of the CP complement:

- (i) *[CP *t*_j [TP *pro*_i *t*_j mazime-da] to]_k Mary-ga
 [CP [TP earnest-COP] C] Mary-NOM
 [VP [NP [**gakkyuu-iin** **kurai**]_j [NP Hanako_i-no-koto]]-o *t*_k omot]-tei-ru.
 [VP [NP [**class-representative as**] [NP Hanako-GEN-fact]]-ACC think]-GER-PRS

This derivation is excluded by the illicit long-distance movement of *gakkyuu-iin kurai* (see (10)) and the unbound traces of *gakkyuu-iin kurai*.

¹² I thank one reviewer of Takahashi (2020) for bringing this prediction to my attention.

- b. ??Mary-ga raion-no koto-o nagut-ta.
 Mary-NOM lion-GEN fact-ACC earnest-PST
 ‘Mary hit (the) lion.’

Recall that the presence of *no koto* with the object is optional when the verb is *nagur* ‘hit’ (see (18)). (32a) and (32b) differ from each other only in the presence of the demonstrative pronoun *sono* ‘the’. Example (32a), in which the object *raion* ‘lion’ involves *sono* ‘the’, is more acceptable than (32b), where *raion* is a bare noun. The contrast between (32a) and (32b) follows given that bare nouns are hard to interpret as specific without context. I argued above that *no koto* attached to an accusative subject followed by an embedded adjunct is the optional instance of *no koto* (see (28)). It is thus predicted that such accusative subjects must be specific. This prediction is borne out:

- (33) a. Mary-ga [**neko kurai**] sono raion-no koto-o kawai-i to
 Mary-NOM [**cat as**] the lion-GEN fact-ACC cute-PRS C
 omot-tei-ru.
 think-GER-PRS
- b. ??Mary-ga [**neko kurai**] raion-no koto-o kawai-i to
 Mary-NOM [**cat as**] lion-GEN fact-ACC cute-PRS C
 omot-tei-ru.
 think-GER-PRS
- ‘Mary thinks that (the) lion is as cute as a cat.’

The accusative subject *raion* ‘lion’ in (33a) and (33b) is preceded by the embedded adjunct *neko kurai* ‘as a cat’. Examples (33a) and (33b) differ from each other only in the presence of the demonstrative pronoun *sono* ‘the’. Just as with (32), (33a), in which *raion* appears with a demonstrative pronoun, is more acceptable than (33b), in which *raion* appears as a bare noun. The contrast between (33a) and (33b) suggests that accusative subjects with *no koto* must be specific when preceded by an embedded adjunct.

In contrast, the host noun does not have to be specific with the obligatory instance of *no koto*:

- (34) a. Mary-ga sono raion-no koto-o hanasi-ta.
 Mary-NOM the lion-GEN fact-ACC talk-PST.
- b. Mary-ga raion-no koto-o hanasi-ta.
 Mary-NOM lion-GEN fact-ACC talk-PST.
- ‘Mary talked about (the) lion.’

The object of *hanas* ‘talk’ must accompany *no koto* (see (20)). Examples (34a) and (34b) differ from each other only in the presence of *no koto*, and they are both acceptable. Of importance

here is the case in which the accusative subject precedes an embedded adjunct. The above analysis dictates that the accusative NP in such a case can be selected by the matrix predicate. This is because the accusative NP can be base-generated as the major object in the matrix VP (see (23)):

- (35) Mary-ga [VP Hanako_i-no-koto-o [CP [TP **gakkyuu-iin kurai**
 Mary-NOM [VP Hanako-GEN-fact-ACC [CP [TP **class-representative as]**
pro_i mazime-da] to] omot]-tei-ru
 earnest-COP] C] think]-GER-PRS

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

The accusative subject *Hanako* in (35) is the major object that binds *pro* in the CP complement, and the embedded adjunct *gakkyuu-iin kurai* ‘as a class representative’ stays within the CP complement. As observed in (34), the host of the obligatory instance of *no koto* does not have to be specific. The analysis in (35) thus predicts that the accusative subject in question also does not have to be specific. This prediction is borne out as well:

- (36) a. Mary-ga raion-no koto-o [**neko kurai**] kawai-i to omot-tei-ru.
 Mary-NOM lion-GEN fact-ACC [**cat as**] cute-PRS C think-GER-PRS
- b. ?? Mary-ga [**neko kurai**] raion-no koto-o kawai-i to omot-tei-ru.
 Mary-NOM [**cat as**] lion-GEN fact-ACC cute-PRS C think-GER-PRS

‘Mary thinks that (the) cat is as cute as a lion.’ (= (33b))

The accusative NP in (36a) and (36b) is a bare noun, *raion* ‘lion’. Example (36a), in which the accusative subject precedes the embedded adjunct *neko kurai* ‘as a cat’, is more acceptable than (36b), in which the former follows the latter. The contrast between (36a) and (36b) follows if the accusative NP in (36a) is the major object selected by the matrix predicate, which means that the accusative NP does not have to be specific.

To summarize, in this section, I have argued that the obligatory/optional-raising analysis is required when an accusative subject with *no koto* follows an embedded adjunct (see (28)). Recall that the accusative NP with *no koto* should be analyzed as a major object in other contexts (see (23)). Therefore, both the major-object analysis and the obligatory/optional-raising analysis are needed to account for cases in which accusative subjects accompany *no koto*.

5. Conclusion

I have discussed the distribution of accusative subjects in ECM constructions. First, I provided a free-ride analysis of the distribution of embedded adjuncts, which has been taken as evidence for the optional-raising analysis. I argued that the free-ride analysis makes the distribution of embedded adjuncts consistent with the obligatory-raising analysis. I then pointed

out that the free-riding of adjuncts in question obeys the clausemate condition and showed that the distribution of embedded adjuncts is inconsistent with the major-object analysis even if the free-ride analysis of the embedded adjuncts is granted. Finally, I discussed the distribution of accusative subjects with *no koto* and argued that such cases require both the obligatory/optional-raising analysis and the major-object analysis.

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