EXCEPTIONAL CASE MARKING IN JAPANESE AND OPTIONAL FEATURE TRANSMISSION[*]

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1. Introduction

In this paper, I present an analysis of exceptional Case marking (ECM) in Japanese. A typical example is shown in (1).

(1) a. Taroo-wa [Yuki-**ga** baka da **to**] omot-teiru.
T-TOP Y-NOM stupid COP COMP think-PROG

'Taro thinks that Yuki is stupid.'

b. Taroo-wa [Yuki-**o** baka da **to**] omot-teiru
T-TOP Y-ACC stupid COP COMP think-PROG

'Taro thinks that Yuki is stupid.'

A certain class of verbs in Japanese takes a clausal complement with an overt complementizer, *to*, and the subject in the embedded clause can be marked with either nominative or accusative Case without any semantic difference. There are two major analyses for the Japanese ECM in the literature. One is the obligatory raising analysis initially proposed in Kuno (1976) and examined in detail in Authier (1991), Tanaka (1992), and Ura (1994). The other is the optional raising analysis discussed in Bruening (2001), Hiraiwa (2001, 2005) and Tanaka (2002). In this latter analysis, the accusative Case on the embedded subject is licensed via Agree. The proposal herein pursues the latter and aims for making it more precise.

Crucial for the analysis presented in this paper is the proposal by Chomsky (2008) that a phase head transmits its features to its complement. Thus, C transmits its phi-features and edge feature (EF) to T, and only then does T become capable of licensing nominative Case. I argue that feature transmission (FT) is optional in certain limited cases, and that this makes

the Case alternation in (1) possible. More concretely, the C, *to*, transmits its phi-features to the embedded T in (1a), and the nominative Case on the embedded subject is valued by the T. This feature transmission does not occur in (1b), and as a result, the accusative embedded subject is valued by the matrix V, which inherits features from the matrix *v*.

I further argue that this analysis enables us to capture some interesting differences between the Japanese ECM and the Turkish ECM. ECM in Turkish looks very similar to its Japanese counterpart on the surface. That is to say, the embedded CP is headed by an overt complementizer and the embedded subject can appear in either nominative or accusative Case, as shown in (2), cited from Şener (2008).

(2) a. Pelin [sen-**ø**   Timbuktu-ya   git-ti-n   diye] bil-iyor-muş.
       P-NOM   you-NOM   T-DAT   go-PAST-2SG   COMP   know-PROG-EVID

   'Pelin thought that you went to Timbuktu.'

   b. Pelin [sen-**i**   Timbuktu-ya   git-ti(-n)   diye] bil-iyor-muş.
       P-NOM   you-ACC   T-DAT   go-PAST(-2SG) COMP   know-PROG-EVID

   'Pelin thought that you went to Timbuktu.'

However, the discussion in Şener (2008) makes it clear that there are important differences between Japanese and Turkish. For example, the embedded accusative subject in Turkish must be construed as a topic while there is no such requirement in Japanese. Adapting Şener's (2008) analysis for Turkish, I propose a micro-parameter that distinguishes the two languages. Simply put, feature transmission from C can be optional, but in Japanese, it is the complementizer *to*, but not any other complementizer, that can optionally transmit features, whereas in Turkish, only the Topic head, which constitutes a part of the C complex in the right periphery of the embedded clause, exhibits this optionality.

In the following section, I briefly present the basic properties of ECM in Japanese, and discuss the analyses proposed in Kuno (1976), Hiraiwa (2001, 2005), and Tanaka (2002). Then, in Section 3, I go over Chomsky's (2008) proposal on feature transmission, and show how it solves the problems of the earlier analyses. Section 4 presents a comparative study of the Turkish ECM and the Japanese ECM. Section 5 concludes the paper.

2. A Description of ECM in Japanese and a Literature Review

This section presents a brief description of the Japanese ECM, and discusses the analyses proposed in the literature. The facts presented herein are widely shared. The latter part of the section reviews alternative approaches to ECM in Japanese. It is shown that evidence converges on the proposal by Tanaka (2002) that the accusative subject moves to the embedded Spec, CP.

2.1. Basic Properties of ECM in Japanese

This section introduces two major properties of the Japanese ECM. One is a free Case alternation and the other concerns the locality of accusative checking.

It is widely accepted that a free Case alternation takes place in the clausal complements of a certain class of verbs in Japanese. The examples in (1) are repeated as (3).

(3)   a.   Taroo-wa [Yuki-**ga** baka   da   **to**]   omot-teiru.
           T-TOP   Y-NOM   stupid   COP   COMP   think-PROG

      'Taro thinks that Yuki is stupid.'

      b.   Taroo-wa [Yuki-**o**   baka   da   **to**]   omot-teiru.
           T-TOP   Y-ACC   stupid   COP   COMP   think-PROG

      'Taro thinks that Yuki is stupid.'

The examples in (3) differ from each other minimally with respect to the Case particle on the subject of the embedded clause. In (3a), the embedded subject is marked with nominative Case, which is the usual Case marker for subjects in Japanese. On the other hand, in (3b), the embedded subject carries the accusative Case particle. Note that the alternation in (3) is totally optional. It is however not the case that this alternation is observed with just any matrix verb. Consider the examples in (4), where the matrix verb differs from that in (3).

(4)   a.   Taroo-wa [Yuki-**ga** baka   (da)   ka]   siritagat-teiru.
           T-TOP   Y-NOM   stupid   (COP)   Q   wonder-PROG

      'Taro wonders whether or not Yuki is stupid.'

      b. *Taroo-wa [Yuki-**o**   baka   (da)   ka]   siritagat-teiru.
           T-TOP   Y-ACC   stupid   (COP) Q   wonder-PROG

      'Taro wonders whether or not Yuki is stupid.'

It has been analyzed that in (3), the matrix verb *omow*- 'think' is an ECM verb and is capable of assigning accusative Case to the embedded subject from outside the embedded clause, whereas in (4), the matrix verb *siritaga*- 'wonder' is not an ECM verb and hence lacks such an ability. This predicts a certain locality relation between the matrix verb and the accusative subject, which is borne out by the examples in (5), cited from Mihara and Hiraiwa (2006).[1]

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[1] (5d) is slightly degraded but contrasts clearly with the ungrammatical (5c). The degradation may be due to the double-*o* constraint, which prohibits multiple occurrences of the accusative marker *o* in a single clause. See Harada (1977) and Kuroda (1978) for detailed discussion of this constraint.

(5) a. Taroo-wa [Yuki-ga me-ga kirei da to] omot-ta.
         T-TOP   Y-NOM   eye-NOM beautiful COP COMP think-PAST

   'Taro thought that Yuki's eyes are beautiful.'

   b. Taroo-wa [Yuki-o me-ga kirei da to] omot-ta.
       T-TOP   Y-ACC   eye-NOM beautiful COP COMP think-PAST

   'Taro thought that Yuki's eyes are beautiful.'

   c. *Taroo-wa [Yuki-ga me-o kirei da to] omot-ta.
       T-TOP   Y-NOM   eye-ACC beautiful COP COMP think-PAST

   'Taro thought that Yuki's eyes are beautiful.'

   d. Taroo-wa [Yuki-o me-o kirei da to] omot-ta.
       T-TOM   Y-ACC   eye-ACC beautiful COP COMP think-PAST

   'Taro thought that Yuki's eyes are beautiful.'

It is well known that a multiple nominative construction is allowed in Japanese, as in (5a). As the matrix predicate is a typical ECM verb, (5b) and (5d) are also grammatical. However, a nominative DP cannot precede an accusative DP, as shown in (5c). This indicates that the licenser of the accusative Case is located higher than that of the nominative Case, which, I assume, is the embedded T. The paradigm then confirms the hypothesis that an accusative subject is licensed by the matrix ECM verb.

2.2.   Earlier Studies

   This section discusses two alternative approaches to ECM in Japanese. One is the obligatory raising analysis and the other is the optional raising analysis. I first point out that each of these analyses is based on evidence that is problematic for the other. Then, it is shown that a modified version of the optional raising analysis proposed by Tanaka (2002) successfully accommodates the relevant data. According to this analysis, the accusative subject moves to the embedded Spec, CP, and is licensed by the matrix verb via Agree. It is shown also, however, that this analysis raises new questions. I address those new questions in Section 3.

2.2.1.   The Obligatory Raising Analysis

   The obligatory raising analysis was initially proposed in Kuno (1976) and is examined in Authier (1991), Tanaka (1992), and Ura (1994). According to this analysis, the accusative subject moves to the matrix clause in order for its accusative Case to be licensed.

   Analysis A: $[_{TP}\dots[_{VP}$ SUBJ V^0 $[_{CP}\dots t_{SUBJ}\dots]]]$.   (Linear order irrelevant)

Kuno (1976) presents two arguments in support of this analysis. One is based on the

observation about the linear order of constituents that an accusative subject can precede a matrix adverbial. The other concerns Condition B of the Binding Theory. This latter argument presents particularly strong evidence for obligatory raising of the accusative subject.

Let us start with the first argument. The examples in (6) are cited from Kuno (1976).

(6)　*Adverb Modification*
　　a. *Taroo-ga　[Hanako-ga　**orokanimo**　tensai　da　to]　　omot-teiru.
　　　　T-NOM　　　H-NOM　　　stupidly　　　genius　COP　COMP　think-PROG

　　　　'Taro stupidly thinks that Hanako is a genius.'

　　b.　Taroo-ga　**orokanimo**　[Hanako-ga　tensai　da　　to]　　omot-teiru.
　　　　T-NOM　　stupidly　　　　H-NOM　　　genius　COP　COMP　think-PROG

　　　　'Taro stupidly thinks that Hanako is a genius.'

　　c.　Taroo-ga　Hanako-o　**orokanimo**　[tensai　　da　to]　　omot-teiru.
　　　　T-NOM　　H-ACC　　　stupidly　　　genius　　COP　COMP　think-PROG

　　　　'Taro stupidly thinks that Hanako is a genius.'

　　d.　Taroo-ga　**orokanimo**　Hanako-o　[tensai　　da　to]　　omot-teiru.
　　　　T-NOM　　stupidly　　　H-ACC　　　genius　　COP　COMP　think-PROG

　　　　'Taro stupidly thinks that Hanako is a genius.'

As shown in (7), the adverb *orokanimo* 'stupidly' does not produce a rational interpretation when associated with the predicate *tensai da* 'is a genius'.

(7)　#Hanako-wa　**orokanimo**　tensai　da.
　　　H-TOP　　　　stupidly　　　genius　COP

　　　'Hanako is stupidly a genius.'

Thus, in order for the example in (6) to make sense, the adverb *orokanimo* ought to be construed with the matrix predicate and hence be a matrix constituent. (6a) is ungrammatical under the interpretation where *orokanimo* is intended to be associated with the matrix verb. Kuno (1976) attributes this ungrammaticality of (6a) to a "mix-up" of matrix and embedded constituents. That is, the nominative subject *Hanako* is located within the embedded clause, and thus, the adverb *orokanimo*, being to the right of *Hanako*, cannot be in the matrix clause. (6b) is grammatical because there is no such mix-up. By contrast, an accusative embedded subject can either precede or follow the matrix adverb, as shown in (6c-d). Kuno (1976) argues that the example (6c) is grammatical because the accusative subject moves out of the embedded clause and becomes a matrix constituent. Note that this argument demonstrates that an accusative subject can be a matrix constituent, but does not show that it must be.

Kuno (1976) presents another, stronger argument based on Condition B of the Binding

Theory. The following example confirms that the distribution of Japanese pronouns is constrained by Condition B:

(8) John$_i$-ga kare$_{*i/j}$-o hihan-sita.
     J-NOM   him-ACC   criticize-did

'John$_i$ criticized himself$_i$.'

In (8), the pronoun in the object position cannot be construed as coreferential with the subject. Given this, Kuno (1976) presents the contrast in (9) as evidence for obligatory raising of the accusative subject.[2]

(9) a. ?John$_i$-ga [kare$_i$-ga baka   da   to]   omot-teiru.
        J-NOM   he-NOM   stupid COP COMP think-PROG

     'John$_i$ thinks that he$_i$ is stupid.'

     b. *John$_i$-ga kare$_i$-o [baka   da   to]   omot-teiru.
        J-NOM   him-ACC stupid COP COMP think-PROG

     'John$_i$ thinks that he$_i$ is stupid.'

The well-formedness of (9a) indicates that the binding domain for the embedded subject is the embedded TP. The ill-formedness of (9b), then, shows that the accusative subject is moved out of the embedded clause and that this causes a Condition B violation. Note that one cannot maintain that the movement is optional in this case. If the accusative subject could stay in the embedded TP, the coreference in (9b) should be possible.

2.2.2. The Optional Raising Analysis

Since Chomsky's (1998) implementation of Agree, an alternative approach to the Japanese ECM has been pursued by Bruening (2001), Hiraiwa (2001, 2005), and Tanaka (2002). These researchers propose that the accusative Case on the embedded subject is licensed by the matrix v^0 through Agree. According to this analysis, the accusative subject need not move to the matrix clause for its Case to be licensed, and if it does, it is due to an operation that is independent of Case licensing, such as scrambling.

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[2] (9a) may sound awkward for some speakers. However, when the antecedent and the pronoun are distant enough from each other as in (i), the sentence gets much improved even for those speakers.

  (i) John-wa$_i$ [sensei-ni   sikar-are-ta   node] kare-ga$_i$ baka dat-ta   to
       J-TOP   teacher-by scold-PASS-PAST because he-NOM stupid COP-PAST COMP
       omot-ta.
       think-PAST

  'John thought that he was stupid because he was scolded by his teacher.'

Analysis B: $[_{TP}…[_{vP} v^0 [_{VP} V^0 [_{CP}…SUBJ…]]]]$.   (Linear order irrelevant)

A piece of supporting evidence for this analysis is put forward by Hiraiwa (2001, 2005). As it has to do with the distribution of negative polarity items (NPIs), let us consider their properties first. In Japanese, a *wh*-phrase followed by the particle *mo* functions as an NPI.

(10)   *wh*-phrase + *mo* = NPI

As an NPI, "*wh*-phrase + *mo*" must be c-commanded by a negation, as shown in (11).

(11) a. Yuki-wa   [dare-mo   tob-eru   to]   omot-tei-nai.
          Y-TOP   who-PRT   fly-can   COMP   think-PROG-NEG

          'Yuki does not think that anybody can fly.'

     b. Yuki-wa   [dare-mo   tob-e-nai   to]   omot-teiru.
          Y-TOP   who-PRT   fly-can-NEG COMP   think-PROG

          'Yuki thinks that nobody can fly.'

     c. *Yuki-wa   [dare-mo   tob-eru   to]   omot-teiru.
          Y-TOP   who-PRT   fly-can   COMP   think-PROG

Interestingly, the particle *mo* can be detached from the *wh*-phrase, and only in this case can the *wh*-phrase be accompanied by a Case particle. Relevant examples are shown in (12).

(12) a. Yuki-wa   [_{CP} dare-ga   tob-eru   to]   -mo   omot-tei-nai.
          Y-TOP   who-NOM   fly-can   COMP   -PRT   think-PROG-NEG

          'Yuki does not think that anyone can fly.'

     b. *Yuki-wa   [_{CP} dare-ga   tob-e-nai   to]   -mo   omot-teiru.
          Y-TOP   who-NOM   fly-can-NEG COMP   -PRT   think-PROG

In (12a), *mo* is attached to the embedded CP instead of to the *wh*-phrase, and the *wh*-phrase appears in nominative Case. (12b) shows that the discontinuous "*wh*-phrase + *mo*" still requires a negation that c-commands both of its parts.

As discussed by Kishimoto (2001), there is an interesting restriction on the relation between the *wh*-phrase and *mo*. Consider the following examples:

(13) a. Yuki-wa   [_{CP} dare-ga   tob-eru   to]   -mo   omot-tei-nai.
          Y-TOP   who-NOM   fly-can   COMP   -PRT   think-PROG-NEG

          'Yuki does not think that anyone can fly.'

b. *Dare-ga   [CP Yuki-ga   tob-eru   to]   -mo   omot-tei-nai.
    who-NOM   Y-NOM   fly-can   COMP   -PRT   think-PROG-NEG

cf. Dare-mo   [CP Yuki-ga   tob-eru   to]   omot-tei-nai.
    who-PRT   Y-NOM   fly-can   COMP   think-PROG-NEG

'Nobody thinks that Yuki can fly.'

In (13a) and (13b), the *wh*-phrase and *mo* are both within the scope of the negation. The crucial difference between the two is that (13a), but not (13b), has the *wh*-phrase inside the embedded CP with *mo*. This indicates that *mo* must c-command the *wh*-phrase. Thus, when *mo* and an associated *wh*-phrase are split, the configuration in (14) must obtain.

(14)   Neg > *mo* > *wh*-phrase   ("*x* > *y*" denotes that *x* c-commands *y*.)

Assuming (14), Hiraiwa (2005) argues that the accusative ECM subject may remain within the embedded clause. Consider the following paradigm, cited from Hiraiwa (2005).

(15)   Yuki-wa   orokanimo [CP dare-ga   baka   da   to]   -mo   omowa-nak-atta.
    Y-TOP   foolishly   who-NOM stupid COP COMP   -PRT   think-NEG-PAST

'Yuki foolishly did not think that anybody is stupid.'

(16)   a.   Yuki-wa   orokanimo [CP dare-o   baka   da   to]   -mo   omowa-nak-atta.
       Y-TOP   foolishly   who-ACC stupid COP   COMP   -PRT   think-NEG-PAST

'Yuki foolishly did not think that anybody is stupid.'

     b. *Yuki-wa   dare-o   orokanimo [CP baka   da   to]   -mo   omowa-nak-atta.
       Y-TOP   who-ACC   foolishly   stupid COP COMP   -PRT   think-NEG-PAST

'Yuki foolishly did not think that anybody is stupid.'

In (15), the negation on the matrix predicate c-commands *mo*, and the *wh*-subject is in the scope of *mo,* which is attached to the embedded CP. Thus, (15) conforms to (14). The crucial case is (16a). This example contains an accusative embedded subject and is grammatical. Given (14), the accusative subject must be within the c-command domain of *mo*, namely the embedded CP. Hiraiwa (2005) concludes then that the accusative Case is licensed in the embedded CP without raising of the embedded subject into the matrix clause. When the accusative subject is moved into the matrix clause as in (16b), *mo* no longer c-commands it, and hence, the sentence becomes ungrammatical. Recall that an accusative subject can move into the matrix clause when no NPI is involved. A relevant example, (6c), is repeated below as (17).

(17) Taroo-ga   Hanako-o$_i$ orokanimo   [t_i tensai da   to]   omot-teiru.
     T-NOM   H-ACC   stupidly   genius COP COMP think-PROG

    'Taro stupidly thinks that Hanako is a genius.'

The movement in (17), Hiraiwa (2005) argues, is an instance of scrambling and is not necessary for the licensing of the accusative Case.

Thus far, I have summarized the obligatory raising analysis and the optional raising analysis of the Japanese ECM. The fact having to do with Condition B strongly supports the obligatory raising analysis, while the fact presented in (16) suggests that the accusative subject may stay within the embedded clause. In the next subsection, I discuss Tanaka's (2002) modified version of the optional raising analysis and show how it can resolve this apparently contradictory situation.

2.2.3.   Tanaka (2002) : A Modified Version of the Optional Raising Analysis

Tanaka (2002) proposes a modified version of the optional raising analysis. He follows Hiraiwa (2001) in assuming that an accusative ECM subject is licensed via Agree with v^0 in the higher clause, but he in addition argues that the accusative subject obligatorily moves to the embedded Spec, CP due to the PIC.

    Analysis C: [$_{vP}$ v^0 [$_{VP}$ V^0 [$_{CP}$ DP$_i$ C$_2$^{0} [$_{TP}$…t_i…]]].

The definition of the PIC is given in (18), cited from Chomsky (2001).

(18)   The Phase Impenetrability Condition (PIC)
    The domain of H is not accessible to operations outside HP; only H and its edge are accessible to such operations.

Since the PIC constrains the domain of Agree relations, Agree cannot search into the complement of the embedded C, which is a phase head. On this assumption, Tanaka (2002) proposes that the embedded subject undergoes A-movement to the embedded Spec, CP so as to become accessible to v.[3]

Given Tanaka's (2002) analysis, I argue that the apparently contradictory data presented in the previous subsections can be explained.

First, let us consider Kuno's (1976) Condition B examples. The examples in (9) are repeated as (19a-b).

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[3] Kaneko (1987) also argues that the accusative ECM subject moves to the embedded Spec, CP, assuming government for Case licensing. Since I assume that Case is valued via Agree, I do not discuss his analysis further. See Kaneko (1987) for the precise mechanism of his analysis.

(19) a. ?John$_i$-ga   [$_{CP}$ [$_{TP}$ kare$_i$-ga baka da] to]   omot-teiru.
           J-NOM   he-NOM fool COP   COMP   think-PROG

       'John$_i$ thinks that he$_i$ is stupid.'

      b. *John$_i$-ga   [$_{CP}$ kare$_i$-o   [$_{TP}$ t_{SUBJ} baka   da] to]   omot-teiru.
           J-NOM   him-ACC   stupid COP COMP think-PROG

       'John$_i$ thinks that he$_i$ is stupid.'

Tanaka's (2002) analysis correctly predicts the contrast in (19) without positing raising of the accusative subject to the matrix clause. Suppose that the binding domain of a pronoun is the smallest TP which contains the pronoun itself. In (19a), it is the embedded TP, and the nominative subject, which I assume is in Spec, TP, is not bound in this domain. On the other hand, in (19b), the pronominal subject moves to Spec, CP in order to be checked for its accusative Case. Since it moves out of the embedded TP, its binding domain becomes the matrix TP. As it is bound in this domain, (19b) violates Condition B.

The analysis also offers an explanation for Hiraiwa's (2005) NPI examples. The crucial example in (16a) is repeated in (20).

(20) Yuki-wa   orokanimo [$_{CP}$ dare-o   baka   da   to]   -mo   omow-ana-katta.
      Y-TOP   foolishly   who-ACC stupid COP COMP -PRT   think-NEG-PAST

     'Yuki foolishly did not think that anybody is stupid.'

On the assumption that the particle *mo* is attached to the embedded CP, it c-commands the *wh*-phrase in Spec, CP.[4] Thus, the *wh*-phrase is in the scope of *mo*, in accordance with (14). Hence the well-formedness in (20) is also accounted for by Tanaka's (2002) analysis.

Although Tanaka's (2002) analysis can account for the facts examined in Kuno (1976) and Hiraiwa (2005), it raises two new questions. One has to do with the A/A' distinction, and the other concerns the trigger of the movement to the embedded Spec, CP. What follows discusses these problems in turn.

The first question relates to the standard analysis of scrambling in Japanese. Since Mahajan (1990), it has been assumed that clause-internal scrambling can be A-movement, based on examples like (21).[5]

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[4] Kishimoto (2001) assumes that the particle *mo* is attached to a syntactic head, and that its scope is determined in a different way. For the convenience for the discussion herein, I assume that *mo* is attached to a maximal projection and its scope is determined by the c-command relation. See Kishimoto (2001) for the details of his analysis.

[5] Mahajan's (1990) proposal is based on Hindi data. See Tada (1993), Nemoto (1993), and Saito (2003) for detailed discussions of the Japanese data considered here.

(21) a. *[Otagai$_i$-no   sensei]-ga   karera$_i$-o hihansi-ta   (koto)
           each.other-GEN   teacher-NOM   they-ACC   criticize-PAST (fact)

    'Each other's teachers criticized them.'

    b. Karera$_i$-o [otagai$_i$-no   sensei]-ga t_i hihansi-ta   (koto)
         they-ACC   each.other-GEN   teacher-NOM   criticize-PAST (fact)

    'Them, each other's teachers criticized.'

(21a) is out because the reciprocal anaphor is not bound by its antecedent, *karera* 'they'. As shown in (21b), if the antecedent is scrambled to the sentence-initial position, the sentence becomes grammatical. This indicates that a scrambled phrase can serve as an A-binder for the reciprocal anaphor.

However, the effect observed in (21b) is limited to clause-internal scrambling. Scrambling across a CP boundary always exhibits A'-properties, as shown by (22b).

(22) a. *[Otagai$_i$-no   sensei]-ga   [$_{CP}$ Yuki-ga karera$_i$-o hihan-sita   to]
           each.other-GEN teacher-NOM   Y-NOM   they-ACC   criticize-did COMP
        it-ta   (koto)
        say-PAST (fact)

    'Each other's teachers said that Yuki criticized them.'

    b. *Karera$_i$-o [otagai$_i$-no   sensei]-ga   [$_{CP}$ t'_i [$_{TP}$ Yuki-ga t_i hihan-sita   to]]
         they-ACC   each.other-GEN   teacher-NOM   Y-NOM   criticize-did COMP
        it-ta   (koto)
        say-PAST (fact)

    'Them, each other's teachers said that Yuki criticized.'

(22a) is out because the reciprocal anaphor is unbound. Note that (22b) is also out, even though the antecedent is scrambled to a position that c-commands the reciprocal anaphor. Based on such data, Mahajan (1990) concludes that long-distance scrambling is necessarily A'-movement, while clause-internal scrambling may be A-movement. As far as successive cyclic movement is assumed, this peculiar property of long-distance scrambling is deduced from the ban on improper movement, as discussed in Fukui (1993). Since the intermediate Spec, CP in (22b) is an A'-position, scrambling from this position must land at another A'-position, or it violates the ban on improper movement.

Let us now consider examples of ECM with this background in mind. (23) is cited from Bruening (2001).

(23) [Dare-to dare]-o$_i$ otagai-no   sensei-ga   [$_{CP}$ t'_i [t_i baka da to]]
     who-and who -ACC each.other-GEN teacher-NOM   stupid COP COMP
     omot-teiru-no?
     think-PROG-Q

'Who all do each other's teachers think of as fools?'

Under Tanaka's (2002) analysis, the accusative subject in (23) is licensed in the embedded Spec, CP. Then, it is scrambled to the sentence-initial position, and serves as an A-binder. Since the landing site of the scrambling in (23) exhibits A-properties, the embedded Spec, CP must be an A-position so that there may be no violation of the ban on improper movement. Then, as Tanaka (2002) points out, it must be explained why the embedded Spec, CP can count as an A-position in this case.

The other question that arises with Tanaka's (2002) analysis concerns the trigger of the movement to the embedded Spec, CP. In the usual case, a subject moves to the closest Spec, TP in order to have its Case valued as nominative, or to satisfy the requirement of the EPP. However, in the ECM case, a subject moves to Spec, CP, and not to the closer Spec, TP. Hence, the analysis must provide some motivation for the movement to Spec, CP.

To summarize, the data presented in the previous subsections initially appeared to be contradictory, but actually seem to converge on Tanaka's (2002) thesis that the accusative subject moves to Spec, CP. The two remaining questions are why the relevant embedded Spec, CP counts as an A-position on one hand, and what triggers the movement to the Spec, CP and why the subject moves to Spec, CP, instead of to Spec, TP on the other.

3. Proposal

On the basis of the discussion in section 2, I propose in this section that the movement is motivated by phi-features on C^0, although in the usual case, those phi-features are transmitted to T^0 and checked off there. In section 3.1, I present assumptions that are crucial for the analysis to be proposed. Then, in section 3.2, I illustrate the analysis in detail.

3.1. Feature Transmission

This subsection briefly introduces the feature transmission (FT) mechanism in Chomsky (2008), which I rely on in my analysis of the Japanese ECM.[6] Chomsky proposes that a phase head plays a significant role in the valuation of Case. More specifically, he argues that only phase heads, C^0 and v^0, come equipped with phi-features when entering into the lexical array.

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[6] Chomsky (2008) uses the term "feature inheritance" for the same mechanism. The term "feature transmission" is adopted from Epstein, Kitahara and Seely (2009). I do not distinguish these two terms in this paper. See Epstein, Kitahara and Seely (2009) and Richards (2007) for detailed discussion on feature transmission.

On this theory, T^0, which is not a phase-head and hence lacks phi-features of its own, can become a probe for nominative Case checking only by virtue of inheriting phi-features from C^0.[7]

Chomsky's (2008) proposal is based on the observation that the presence of C is necessary for nominative Case checking. Consider the following ECM examples in English:

(24)   a.   I expect [him to leave].

     b.   I believe [him to be incompetent].

Here, the subject of the infinitival complement clause must appear in accusative Case, and a nominative subject is not allowed in this position. This unavailability of nominative Case has often been attributed to the nature of T^0. More precisely, in a tensed clausal complement, T^0 is phi-complete and hence is able to value nominative Case, whereas in an infinitival clause, T^0 is phi-defective and is unable to value Case. Chomsky (2008), on the other hand, tries to derive the unavailability of nominative Case from the absence of C. He argues that only when C is present right above T, is T able to value nominative Case. Assuming that nominative Case assignment requires phi-features on T, this can follow if one assumes that the phi-features on T^0 actually originate from C^0. In (24), the matrix verb takes a TP complement without a C layer. As no phi-features are transmitted to T^0, T^0 remains unable to value the Case of the embedded subject. Consequently, a higher probe, V^0 inheriting phi-features from *v,* ends up valuing it as accusative.

Under this theory, feature transmission seems mandatory at least in some cases. Consider (25).

(25)   a.   I know what John bought.

     b.   [$C_{[\phi]}$ [T [John [v^* [bought what]]]]].

     c.   [what$_i$ [C [John$_j$ [T [t_j [v^* [bought t_i]]]]]]].

In (25a), the subject, *John,* is located below the *wh*-operator *what*. On the assumption that *wh*-operators are in Spec, CP, which is a canonical A'-position, the subject must be in a lower Spec, that is, Spec, TP. In order to account for examples like (25), Chomsky (2008) proposes that C's phi-features are transmitted to T. The transmitted phi-features make T act as a probe and value the embedded subject as nominative. As a result, the embedded subject undergoes A-movement of to Spec, TP. Since the *wh*-operator undergoes A'-movement to Spec, CP, the derivation proceeds from (25b) to (25c).

In (25), feature transmission plays a crucial role for the successful feature checking of the subject. Given that C^0 has phi-features of its own, however, it might be expected that C^0

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[7] In addition to the argument presented in this subsection, Chomsky (2005, 2007) also provides a conceptual argument for this proposal.

itself can become a probe for Agree if its phi-features do not get transmitted and stay on C instead. If one further assumes that even without Case valuation, Agree by itself is enough to trigger A-movement of the subject, the subject will be expected to undergo A-movement to Spec, CP in such a case. This should be possible when a lexical array contains no *wh*-operator, unlike in the case of (25). In the following subsection, I argue that this is exactly what happens in the case of the Japanese ECM.

3.2.   FT-based Analysis of the Japanese ECM

It has been suggested that an accusative subject in the Japanese ECM undergoes A-movement to the embedded Spec, CP and that phi-features trigger A-movement. Thus, when C retains the phi-features without feature transmission, A-movement to the relevant Spec, CP is predicted to be legitimate. While Chomsky (2008) argues that feature transmission from C to T is obligatory, I argue that this is not the case with the C *to*. The proposal is stated in (26).

(26)   The complementizer *to* optionally transmits its phi-features.

Given this, the Case alternation in (27) is straightforwardly accounted for.

(27)   a.   Taroo-wa   [CP [TP Yuki-**ga**   baka   da]   **to**]   omot-teiru.
             T-TOP   Y-NOM   stupid   COP   COMP   think-PROG

             'Taro thinks that Yuki is stupid.'

       b.   Taroo-wa   [CP Yuki-**o** [TP baka   da]   **to**]   omot-teiru.
             T-TOP   Y-ACC   stupid   da   COMP   think-PRO

             'Taro thinks that Yuki is stupid.'

In (27a), the C head *to* transmits its phi-features, and T becomes capable of entering into an Agree relation with the subject of the embedded clause by inheriting the phi-features. Nominative Case is then realized as a result phi-feature checking by T. On the other hand, in (27b), the phi-features remain on *to*, and thus T does not become a probe for Agree. Therefore, the subject of the embedded clause is not assigned nominative Case. However, the phi-features on C still need to be checked off, and thus Agree with C causes the subject to move to the embedded Spec, CP, making it accessible to a probe in the higher phase in accordance with the PIC. The matrix V then values the subject as accusative.

A piece of evidence for this approach can be found if we reexamine the distribution of accusative subjects. As mentioned earlier, an accusative subject is not always legitimate. Consider (4), repeated below in (28).

(28) a. Taroo-wa   [Hiromi-ga   kirei   (da)   ka]   siritagat-teiru.
        T-TOP   H-NOM   beautiful (COP)   Q   wonder-PROG

      'Taro wonders whether or not Hiromi is beautiful.'

    b. *Taroo-wa   [Hiromi-o   kirei   (da)   ka]   siritagat-teiru.
        T-TOP   H-ACC   beautiful (COP)   Q   wonder-PROG

      'Taro wonders whether or not Hiromi is beautiful.'

In the literature, the ungrammaticality of (28b) is standardly explained in terms of the semantic nature of the matrix verb. Specifically, Kuno (1976) argues that only verbs of thinking and verbs of feeling allow the subject of their complement clause to be marked with accusative Case. As the matrix verb in (28), *siritaga-* 'wonder', does not satisfy this condition, the accusative subject is illicit in (28b).

However, this account fails to explain examples such as those in (29)-(30). The verb in (29), *iu* 'say', is a verb of saying, and not of thinking or feeling. Yet, an accusative subject is possible as shown in (29b).

(29) a. Taroo-wa   [CP [TP Miki-**ga**   kirei   da]   **to**]   it-ta.
        T-TOP   M-NOM   beautiful COP COMP   say-PAST

      'Taro said that Miki is beautiful.'

    b. Taroo-wa   [CP Miki-**o** [TP kirei   da]   **to**]   it-ta.
        T-TOP   M-ACC   beautiful COP COMP   say-PAST

      'Taro said that Miki is beautiful.'

Here, it cannot be hypothesized that verbs of saying also license accusative subjects in general. In (30), the matrix verb, *tazune-* 'inquire', is a verb of saying, but it does not allow an accusative subject as (30b) shows.

(30) a. Taroo-wa   [CP [TP Hanako-ga baka]   ka]   tazune-ta.
        T-TOP   H-NOM   stupid   Q   inquire-PAST

      'Taro inquired whether or not Hanako is stupid.'

    b. *Taroo-wa   [CP Hanako-o [TP baka]   ka]   tazune-ta.
        T-TOP   H-ACC   stupid   Q   inquire-PAST

      'Taro inquired whether or not Hanako is stupid.'

Given (30), it seems difficult to account for the distribution of accusative subjects solely on the basis of the semantic nature of the matrix verb.

The examples examined so far suggest a new generalization. That is, accusative subjects

are possible only when the embedded CP is headed by the C *to*. This is the case in (27) and (29), for example. On the other hand, when the embedded CP is headed by *ka*, accusative subjects are disallowed as shown in (28) and (30). I then hypothesize that the complementizer, *to* plays a significant role in the licensing of an accusative subject. This fits the proposal made at the outset of this subsection nicely. Feature transmission is optional with *to*, as proposed, and it is obligatory with *ka*. The difference between the two Cs is illustrated in (31).

(31) a.
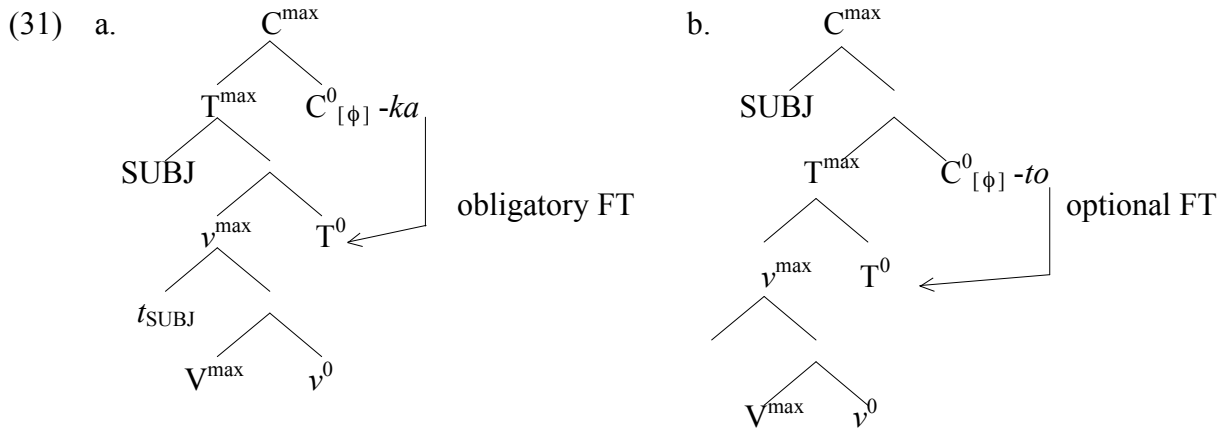
(31a) and (31b) correspond to (28) and (29), respectively. In (31a), *ka* obligatorily transmits its phi-features to T. As a result, T becomes capable of valuing the subject as nominative. The subject then moves to Spec, TP to check the phi-features off and it is valued as nominative. A-movement to Spec, CP is unavailable because C has lost its phi-features.

On the other hand, when the CP is headed by *to* as in (31b), there are two possibilities as feature transmission from *to* is optional. When feature transmission takes place, nominative subject is realized in the same manner as in (31a). Otherwise, *to* retains its own phi-features and these are checked off *in situ*. This checking causes the subject to undergo A-movement to the embedded Spec, CP. As the subject moves to the phase edge, it becomes accessible to a higher Case licenser. Consequently, the V in the matrix clause values the embedded subject as accusative. This is how (27b) is derived.

This analysis can deal with another interesting paradigm with an additional assumption. Let us first consider (30) again. The example has shown that an accusative subject is not allowed in CPs headed by *ka*. However, the matrix verb, *tazune-* 'inquire', can take a CP complement with both *ka* and *to*, as shown in (32).

(32) a. Taroo-wa   [CP Hanako-ga baka   ka to]   tazune-ta.
          T-TOP   H-NOM   stupid Q   COMP inquire-PAST

      'Taro inquired whether or not Hanako is stupid.'

      b. Taroo-wa   [CP Hanako-o baka   ka to]   tazune-ta.
          T-TOP   H-ACC   stupid Q   COMP inquire-PAST

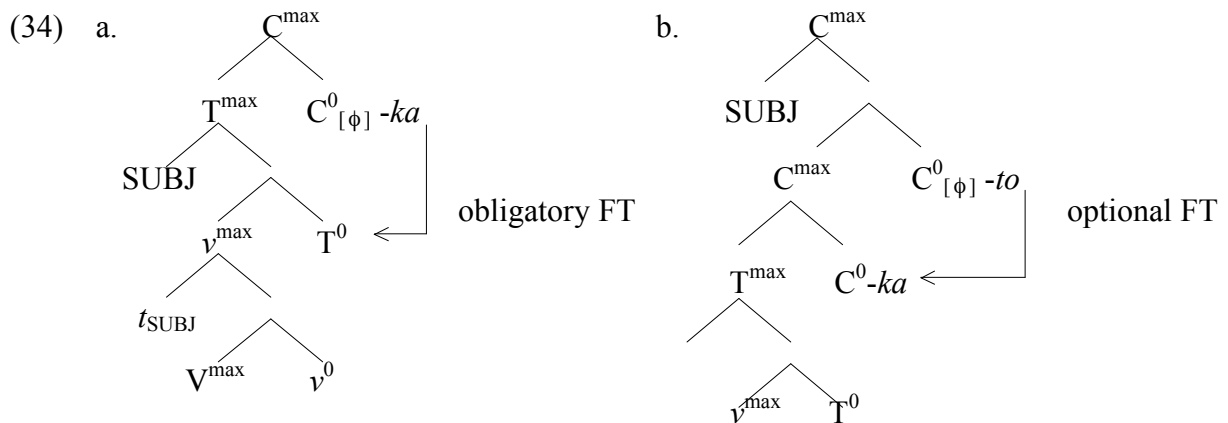   'Taro inquired whether or not Hanako is stupid.'

In (32), both a nominative subject and an accusative subject are legitimate. Given that the complementizer *to* optionally transmits its phi-features, the grammaticality of (32b), in contrast with (30b), can be accounted for under the analysis proposed in this section.

An additional assumption that is required is that only the highest C counts as a phase head if there is a recursive CP structure within a single clause. Then, the highest C, but none of the lower Cs, is equipped with phi-features. This can be implemented as follows. Let us assume first that Cs, and in particular *ka*, can enter into the lexical array with or without phi-features. Suppose further that a C without phi-features can only be selected by another C.

(33)   *Ka* without phi-features can only be selected by *to*.

This suffices to account for the contrast between (30) and (32).

(30) is explained as before. Since *ka* is the highest C, it is equipped with phi-features. Then, it obligatorily transmits these phi-features to T, as in (34a), and the subject appears in nominative Case.

(34)   a.

C^{max}

T^{max} $C^0_{[\phi]}$ *-ka*

SUBJ

v^{max} T^0 ← obligatory FT

t_{SUBJ}

V^{max} v^0

b.

C^{max}

SUBJ

C^{max} $C^0_{[\phi]}$ *-to*

T^{max} C^0*-ka* ← optional FT

v^{max} T^0

(32), on the other hand, has the structure in (34b). Here, *to*, being the highest C, must have phi-features but *ka* need not. By assumption, *to* only optionally transmits its phi-features to *ka*. When it does, *ka* transmits them further to T, and the subject is assigned nominative Case. Otherwise, *to* will be one and the only functional head with phi-features. In this case, it probes the subject and attracts it to its Spec position. Then, the matrix V values the subject as accusative.

Thus far, I have proposed that the complementizer *to* optionally transmits its phi-features to the lower head and that it plays a crucial role in licensing accusative subjects. When feature transmission occurs, the embedded subject is realized in nominative Case in the embedded Spec, TP. When there is no feature transmission, the phi-features remain on *to*, and the subject undergoes A-movement to the embedded Spec, CP. This analysis answers the questions raised for Tanaka's (2002) analysis. One concerns the A/A' distinction and the other the trigger of the A-movement. Since the movement to the embedded Spec, CP has to do with checking of phi-features remaining on C, it is straightforwardly predicted that the movement exhibits A-properties. Thus, the optionality of feature transmission makes the

movement to the relevant Spec, CP possible.

4. A Comparative Perspective: ECM in Turkish

In this section, I argue that the analysis proposed in Section 3 can also deal with the Turkish ECM.[8] Typical examples of the Turkish ECM are shown in (35).[9,10]

(35) a. Pelin [sen-ø Timbuktu-ya git-ti-n **diye**] bil-iyor-muş.
       P-NOM   you-NOM T-DAT   go-PAST-**2sg** COMP know-PROG-EVID

   'Pelin knew that you went to Timbuktu.'

   b. Pelin [sen-**i** Timbuktu-ya git-ti(-**n**) **diye**] bil-iyor-muş.
       P-NOM   you-ACC T-DAT   go-PAST(-**2sg**) COMP know-PROG-EVID

   'Pelin thought that you went to Timbuktu.'

Turkish is a head-final language and an accusative subject is legitimate even though an overt complementizer, *diye*, is present. In addition, since the subject in the embedded clause can be nominative as well, its Case appears to be freely alternated. In these respects, ECM in Turkish is similar to the Japanese counterpart on the surface. Şener (2008), however, makes it clear that the Turkish ECM significantly differs from that in Japanese in its interpretation. More specifically, he shows that the accusative ECM subject in Turkish is construed as a topic.

The following subsection presents the similarities and differences between the Turkish ECM and the Japanese ECM, based on the observations in Şener (2008). Then, subsection 4.2 discusses how they are explained under the analysis in Section 3.

4.1. The Accusative Subjects as Topics

In this subsection, I go over Şener's (2008) arguments that the accusative subject in the Turkish ECM is located higher than Spec, TP and is construed as a topic. For the relatively higher position of the accusative subject, Şener provides a piece of evidence based on Condition A of the Binding Theory. The following examples are cited from Şener (2008).

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[8] All the Turkish data are taken from Şener (2008). See also Kornfilt (1977) and Zidani-Eroğlu (1997) for the discussion on the Turkish ECM.

[9] The complementizer *diye* does not always occur in the Turkish ECM. More precisely, some ECM predicates select clausal complements with this complementizer, while the others select null-comp clausal complements. However, the CP complements in ECM behave alike regardless of whether *diye* is present.

[10] An agreement morphology is obligatory on the embedded predicate with a nominative subject, while it is optional with an accusative subject. This phenomenon will be discussed in Şener and Takeuchi (in preparation).

(36) a. *Sen$_i$ [kendin-i$_i$ basarı-ya   ulaş-mış-sın]   san-ıyor-sun.
       you-NOM   yourself-NOM   success-DAT   reach-2sg   believe-PROG-2sg

     'You believe yourself to have succeeded.'

(36) b. *Biz$_i$ [birbirimiz$_i$ viski-yi   iç-ti-k]   san-ıyor-uz.
       we-NOM   ourselves-NOM   whisky-ACC   reach   believe-PROG-2sg

     'We believe each other to have drunk the whisky.'

(37) a. Sen$_i$ [kendin-i$_i$ basarı-ya   ulaş-mış]   san-ıyor-sun.
       you-NOM   yourself-ACC   success-DAT   reach-2sg   believe-PROG-2sg

     'You believe yourself to have succeeded.'

(37) b. Biz$_i$ [birbirimiz-i$_i$ viski-yi   iç-ti-k]   san-ıyor-uz.
       we-NOM   ourselves-ACC   whisky-ACC   reach   believe-PROG-2sg

     'We believe each other to have drunk the whisky.'

(36) is out because the reflexive subject violates Condition A of the Binding Theory. On the other hand, such a violation is not incurred in (37) with the accusative subjects. That is, the binding domain of the reflexive subject is the matrix TP in (37), while it is the embedded TP in (36). Based on this, Şener (2008) concludes that the accusative subject is not located in Spec, TP, and hence is raised out of this position.

Recall that the Japanese ECM exhibits a similar paradigm with Condition B. The relevant examples (19) are repeated as (38).

(38) a. ?John$_i$-ga [$_{CP}$ [$_{TP}$ kare$_i$-ga baka da] to]   omot-teiru.
      J-NOM   he-NOM   fool   COP   COMP   think-PROG

     'John$_i$ thinks that he$_i$ is stupid.'

(38) b. *John$_i$-ga [$_{CP}$ kare$_i$-o   [$_{TP}$ t_{SUBJ} baka da] to]   omot-teiru.
      J-NOM   him-ACC   fool   COP   COMP   think-PROG

     'John$_i$ thinks that he$_i$ is stupid.'

These examples show that the accusative subject in Japanese is also located in a position higher than the nominative subject, which I argued is Spec, CP. Thus, (36)-(38) suggest that the Turkish ECM and the Japanese ECM are similar in this respect.

However, there is a clear difference between Turkish and Japanese. Şener (2008) convincingly argues that the accusative subject is construed as a topic in Turkish. In what follows, I introduce two pieces of evidence from Şener (2008). One has to do with the distribution of accusative subjects in various discourse contexts and the other concerns the fact that NPIs cannot be accusative subjects.

First let us consider the interpretation of the Turkish ECM. Şener (2008) presents the following examples:

(39) A: Do you know who showed up at Mert's party?
      B: I haven't asked Mert himself about it. But…

    a. Pelin   [Sinan-ø^F git-ti   diye] duy-muş.
        P-NOM   S-NOM   go-PAST COMP hear-PAST

    'Pelin heard that Sinan went (to the party).'

    b. #Pelin   [Sinan-ı^F git-ti   diye] duy-muş.
         P-NOM   S-ACC   go-PAST COMP hear-PAST

    'Pelin heard that Sinan went (to the party).'

(40) A: Do you know if everyone went to Mert's party?
      B: I haven't talked to Mert but…

    a. Pelin   [*yalnızca* Sinan-ø^{CF} git-ti   diye] duy-muş.
        P-NOM   only   S-NOM   go-PAST COMP hear-PAST

    'Pelin heard that only Sinan went (to the party).

    b. #Pelin   [*yalnızca* Sinan-ı^{CF} git-ti   diye] duy-muş.
         P-NOM   only   S-ACC   go-PAST COMP hear-PAST

    'Pelin heard that only Sinan went (to the party).

Şener (2008) observes that only (39a) and (40a) are appropriate as answers for the questions in A. On the other hand, with an accusative subject, (39b) and (40b) are grammatical but unsuitable as answers in this context. Assuming that the element in the answer corresponding to the *wh*-phrase in the question is a focus (contrastive focus in the case of (40)), Şener (2008) argues that (39b) and (40b) are inappropriate because accusative subjects cannot be construed as foci.

Then, what interpretation does an accusative subject receive? Şener (2008) goes on to show that it is appropriate in contexts where it is construed as a topic. Consider the following data:

(41) A: What about John? Did Pelin tell you what he ate at the party?
      B: I didn't know about John, but…

    a. Pelin   [Mete-ø^{CT} istakoz-dan^{CF} ye-di   diye] duy-muş.
        P-NOM   M-NOM   lobster-ABL   eat-PAST COMP hear-PAST

    'Pelin heard that Mete ate the lobster (at the party).'

b. Pelin   [Mete-yi^{CT} istakoz-dan^{CF} ye-di   diye]   duy-muş.
    P-NOM M-ACC   lobster-ABL eat-PAST COMP hear-PAST

   'Pelin heard that Mete ate the lobster (at the party).'

In (41), A asks B what John ate at the party. B does not know what John ate at the party but B knows that Mete ate the lobster. In this case, *Mete* is a contrastive topic, rather than a focus, and it can appear in nominative or accusative Case. Based on observations of this kind, Şener (2008) hypothesizes that an accusative ECM subject is construed as a topic.

It is noteworthy that the accusative ECM subject in Japanese does not have this restriction on the interpretation. Relevant Japanese data are shown in (42) and (43).[11]

(42) A: Do you know who is the most stupid in Aoi's class?
      B: I haven't asked Aoi herself about it. But…

   a. Taroo-wa [Yuki-ga itiban baka da to]   omot-tei-ta   yo.
      T-TOP   Y-NOM   most stupid COP COMP think-PROG-PAST PRT

      'Taro thought that Yuki is the most stupid.'

   b. Taroo-wa [Yuki-o itiban baka da to]   omot-tei-ta   yo.
      T-TOP   Y-ACC   most stupid COP COMP think-PROG-PAST PRT

      'Taro thought that Yuki is the most stupid.'

(43) A: Do you know if everyone in Aoi's class is stupid?
      B: I haven't talked to Aoi but…

   a. Taroo-wa [Yuki-dake-ga baka da to]   sinzite-i-ta   yo.
      T-TOP   Y-only-NOM   stupid COP COMP believe-PROG-PAST PRT

      'Taro believed that only Yuki is stupid.'

   b. Taroo-wa [Yuki-dake-o baka da to]   sinzite-i-ta   yo.
      T-TOP   Y-only-ACC stupid COP COMP believe-PROG-PAST PRT

      'Taro believed that only Yuki is stupid.'

In (42) and (43), the embedded subjects are interpreted as a focus and as a contrastive focus, respectively. If accusative subjects in Japanese should be construed as topics, (42b) and (43b) would be predicted to be inappropriate as answers just like their Turkish counterparts in (39b) and (40b), which is not the case. Thus, accusative ECM subjects in Japanese need not be construed as topics.

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[11] The Japanese ECM is most natural when the embedded predicate is "stative", according to Kuno (1976) and Kawai (2006). Because of this restriction, it is impossible to examine exact counterparts of Şener's (2008) Turkish examples in Japanese.

The other evidence that Şener (2008) presents for the topichood of accusative ECM subjects in Turkish concerns the distribution of NPIs. He points out that an NPI can be a nominative subject but not an accusative subject, as shown in (44)-(45).

(44) a. *pro* [kimse-ø   gel-me-di   diye] duy-du-m.
              anybody-NOM go-NEG-PAST   COMP hear-PRES-1sg

     'I have heard that nobody came.'

   b. *pro* [kimse-ø   gel-di   diye] duy-ma-dı-m.
              anybody-NOM go-PAST   COMP hear-NEG-PRES-1sg

     'I haven't heard that anybody came.'

(45) a. *Pelin   [**kimse-yi**   bu kitab-ı   oku-ma-dı diye] bil-iyor.
          P-NOM   anybody-ACC this book-ACC read-NEG   COMP know-PRES-2pl

     'Pelin thinks that nobody read this book.'

   b. *Pelin   [**kimse-yi**   Timbuktu-ya git-ti   diye] duy-ma-dı.
          P-NOM   anybody-ACC T-DAT   go-PAST COMP hear-NEG-PRES

     'Pelin hasn't heard that anybody went to Timbuktu.'

(44) shows that the NPI with nominative Case, *kimse*, can occur in the embedded subject position, regardless of whether a negation is attached to the embedded predicate or the matrix predicates. On the other hand, (45) shows that the NPI cannot be an ECM subject with accusative Case, no matter which predicate a negation is attached to.

Şener (2008) argues that (45) is out due to the unavailability of NPI topicalization. Consider the following examples:

(46) a. *Kimse$_i$-yi,   Pelin t_i öp-me-di.
          anybody-ACC P-NOM kiss-NEG-PAST

     'Pelin did not kiss anybody.'

   b. Pelin   kimse-yi öp-me-di.
          P-NOM anybody kiss-NEG-PAST

     'Pelin did not kiss anybody.'

(46a), which would be derived from (46b) through topicalization, is ungrammatical. This shows that an NPI cannot be a topic in Turkish. Thus, given that the accusative ECM subject is a topic in Turkish, the ungrammaticality of (46a) is straightforwardly accounted for.[12]

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[12] It is difficult to construct Japanese examples that would correspond to (44) and (45), because NPIs in Japanese cannot carry a Case particle.

In this subsection, I discussed Şener's (2008) observations on the Turkish ECM. They make it clear that an accusative ECM subject is located in a position higher than that of nominative subjects and it must be construed as a topic. In the following subsection, I discuss Şener's (2008) analysis and suggest an extension that enables us to pursue a micro-parameter that distinguishes Turkish and Japanese.

4.2. Şener's (2008) Analysis and its Extension

As shown above, accusative ECM subjects in Turkish are construed as topics. Yet, not all topic phrases can be marked with accusative Case in ECM contexts. Şener (2008) observes that the distribution of the accusative subjects exhibits locality, as illustrated in (47).

(47) *Co-occurrence with Non-Accusative Topic*
    A: Does Pelin know what Filiz gave Mert?
    B: Well, he didn't know about what Filiz gave Mert, but…

    a. Pelin   [Serkan-i^{CT} Nilufer-e^{CT} bir mix kaset ver-di]   san-ıyor-muş.
        P-NOM   S-ACC   N-DAT   a-mixed-tape give-PAST believe

        'Pelin believes that Serkan gave Nilufer a mixed-tape.'

    b. *Pelin   [Nilufer-e^{CT} Serkan-i^{CT} bir mix kaset ver-di]   san-ıyor-muş.
        P-NOM   N-DAT   S-ACC   a-mixed-tape give-PAST believe

        'Pelin believes that Serkan gave Nilufer a mixed-tape.'

In (47), two topics are contained in the embedded clause. In the grammatical (47a), the accusative subject precedes the indirect object with dative Case. On the other hand, the example becomes ungrammatical when the dative indirect object precedes the accusative subject as in (47b). On the basis of these data, Şener (2008) concludes that accusative Case is valued by the matrix predicate and that the valuation of accusative Case is blocked by the intervening dative phrase in (47b).

Based on this and the observations discussed in the preceding subsection, Şener (2008) hypothesizes that topicalization is crucially involved in the accusative Case checking in the Turkish ECM. He proposes that the accusative ECM subject moves out of TP, and occupies the embedded Spec, TopP. The structure is shown in (48).

(48) $[_{vP}\, v^0\, [_{VP}\ldots[_{TopP}\, \text{SUBJ Top}^0\ldots[_{TP}\, \text{T}\, [_{vP}\, t_{\text{SUBJ}}\, [_{VP}\, V^0]]]]]]$.   (Şener 2008)

(i) Taroo-wa [Hanako-*sika* (*-ga / *-o)   baka   da   to]   omot-tei-nai.
    T-TOP   H-only   -NOM / -ACC   stupid COP COMP think-PROG-NEG

    'Taro thinks that only Hanako is stupid.'

Therefore, it is impossible to distinguish between ECM and non-ECM cases.

Assuming that TopP is a part of the recursive CP complex, Şener (2008) argues that this movement enables the subject to be marked with accusative Case. Suppose that the PIC constrains the domain of the Agree relation. When TopP is the complement of the matrix verb, its Spec position is accessible to a higher probe, v^0, and thus the subject can be valued as accusative in this position.

Şener presents the contrast in (49) as supporting evidence for this analysis.

(49) a. Pelin   [Mert-ø kim-e   vur-du diye] sor-du et-ti.
       P-NOM   M-NOM who-DAT hit-PAST COMP ask-PAST do-PAST

       'Pelin asked who Mert hit.'

   b. *Pelin   [Mert-i kim-e   vur-du diye] sor-du   et-ti.
       P-NOM   M-ACC who-DAT hit-PAST COMP ask-PAST do-PAST

       'Pelin asked who Mert hit.'

In (49), a *wh*-phrase is contained in the embedded clause. The *wh*-phrase can take embedded scope in (49a), as the English translation indicates. However, this interpretation is impossible with the accusative subject as in (49b). Şener (2008) argues that this contrast follows from the analysis of ECM shown in (48). But before presenting his account, let me briefly introduce two assumptions that he adapts. One concerns the recursive structure of CP and the other has to do with the *wh*-strategy in Turkish.

First, following Rizzi (1997), Şener assumes that CP in Turkish can be divided into segmental projections as follows:[13]

(50) [ForceP [TopicP [FocusP [FinP [TP…] Fin] Foc] Top] Force].   (Rizzi 1997)

Şener assumes that the *wh*-operator occupies Spec, ForceP and the element which is construed as a topic is located in Spec, TopP. The other assumption has to do with the *wh*-strategy in Turkish. Şener (2008) assumes that *wh*-phrases in Turkish are construed *in situ* by unselective binding by an phonologically empty operator in the relevant Spec, CP.

Given those two assumptions, the contrast in (49) is accounted for in the following way. Since the scope of the *wh*-phrase in (49) is the embedded clause, the empty operator occupies the embedded Spec, ForceP, which is the highest projection in the CP system, and it unselectively binds the *wh*-phrase *in situ*. The structure is shown in (51).

(51) [$_{vP}$ v^0 [ForceP Op$_i$…[TopP…Mert…*wh*-phrase$_i$…]]].

In (49a), the embedded T values nominative Case on the embedded subject, *Mert*. (49b), on

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[13] (50) differs slightly from what Rizzi (1997) proposes for Italian. See Rizzi (1997) for detailed discussion of the structure of CPs.

the other hand, is ungrammatical with the interpretation in which the scope of the *wh*-operator is the embedded clause. Notice that in the structure in (51), the empty operator intervenes between the Case licenser, v^0, and the accusative subject occupying the embedded Spec, TopP. Şener (2008) argues that Spec, TopP is not accessible from v^0 in this configuration because the position is contained in the complement of a phase head, Force^0. Thus, accusative Case checking fails and (49b) is ungrammatical.[14]

Although Şener's (2008) proposal elegantly accounts for his data, it shares the same problems with Tanaka's (2002) analysis of the Japanese ECM, as it also relies on movement to Spec, CP. In the Turkish case, the motivation for the movement of an ECM subject is clear: as it is a topic, it moves to Spec, TopicP. However, the subject could be valued as nominative in Spec, TP, and it is not clear why it can postpone Case checking until it reaches the final landing site. An additional potential problem concerns the locality of the movement to Spec, TopicP. Topicalization in Turkish is not limited to subjects. Thus, (52a) is perfectly grammatical.

(52) a. Mete$_i$-yi, Pelin t_i öp-me-di.
          M-ACC   P-NOM   kiss-NEG-PAST

       'Pelin did not kiss Mete.'

      b. Pelin   Mete-yi öp-me-di.
          P-NOM   M-ACC   kiss-NEG-PAST

       'Pelin did not kiss Mete.'

(52a) is derived from (52b) via topicalization of the object. Then, it is predicted that any phrase may move to Spec, TopicP and be checked for accusative Case. But the Turkish ECM, like ECMs in other languages, is limited to the embedded subject. Although Şener (2008) addresses these questions, he does not offer satisfactory answers. In the remainder of this section, I argue that they can receive a straightforward account if his analysis is incorporated

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[14] In fact, the Japanese ECM also exhibits a similar restriction for an independent reason. Consider the following examples.

(i) a. Taroo-wa [CP [CP [TP dare-ga   baka] ka] to]   tazune-ta.
         T-TOP   who-NOM stupid Q   COMP inquire-PAST

        'Taro inquired who is stupid.'

     b. *Taroo-wa [CP dare-o   [CP [TP baka] ka] to]   tazune-ta.
         T-TOP   who-ACC   stupid Q   COMP inquire-PAST

        'Taro inquired who is stupid.'

In (ia) the *wh*-phrase can take the embedded scope, whereas it cannot in (ib). On the assumption that *wh*-phrases must be in the domain of the question marker, *ka*, it follows that (ib) is out with the relevant interpretation because the accusative ECM subject is licensed in a projection higher than that of *ka*.

with the optional feature transmission mechanism proposed for the Japanese ECM.

Recall that in the Japanese ECM, the complementizer, *to*, only optionally transmits phi-features and when it does not, the accusative subject undergoes A-movement to Spec, CP in order to check the phi-features off. In the Turkish case, then, if the Topic head can retain phi-features, it can trigger A-movement to its Spec. Hence, I propose then that the Topic head optionally transmits phi-features in Turkish.

(53)   FT from Top^0 is optional in Turkish, whereas FT from the C^0 *to* is optional in Japanese.

Given (53), the Case alternation in (35), repeated in (54), is accounted for. The relevant derivations are shown in (55). (55a) and (55b) correspond to (54a) to (54b), respectively.

(54)   a. Pelin   [sen-**ø**   Timbuktu-ya git-ti-n   **diye**] bil-iyor-muş.
           P-NOM   you-NOM   T-DAT   go-PAST-**2sg**   COMP   know-PROG-EVID

          'Pelin knew that you went to Timbuktu.'

       b. Pelin   [sen-**I**   Timbuktu-ya git-ti(-**n**)   **diye**] bil-iyor-muş.
           P-NOM   you-ACC   T-DAT   go-PAST(-**2sg**)   COMP   know-PROG-EVID

          'Pelin thought that you went to Timbuktu.'

(55)   a.
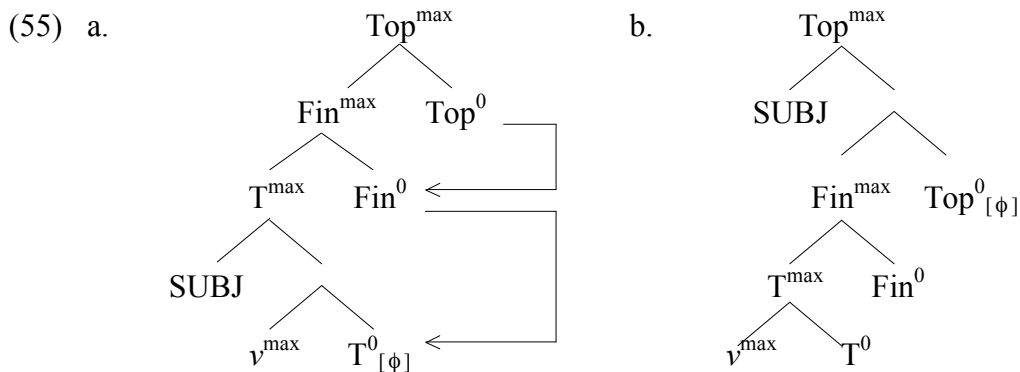
In (55a), feature transmission applies from Top^0 to T^0, and T^0 becomes capable of licensing nominative Case.[15] Thus, (54a) is derived with nominative Case on the embedded subject. On the other hand, (54b) is derived when feature transmission does not occur from Top^0 to Fin^0 as in (55b). In this case, phi-features remain on Top^0 and thus, the subject undergoes A-movement to the embedded Spec, TopP to check the phi-features off. Then, the matrix V, which inherits phi-features from the matrix v^0, values the accusative Case of the embedded subject in the phase edge.

This section has shown that the analysis demonstrated in Section 3 can be extended to

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[15] I assume that the heads in C complex obligatorily transmit phi-features except for Top^0 in Turkish. More specifically, when Top^0 transmits phi-features to Fin^0, Fin^0 obligatorily transmits them to T^0. Given the assumption in Section 3 that only the highest C is equipped with phi-features, Fin^0 itself does not enter the structure with its own phi-features.

the Turkish ECM with the proposal that the Topic head optionally transmits phi-features in Turkish. Recall that ECMs in Turkish and Japanese are quite similar, the only notable difference being that the ECM subjects in Turkish are construed as topics. This is captured by the analysis suggested here. In both languages, the ECM subject can move to Spec, CP because there is a C that transmits phi-features only optionally. The relevant C is Topic in Turkish, and hence, ECM subjects are construed as topics. There is no such restriction in the case of Japanese because the relevant C is *to*, which is not a Topic head.

5. Conclusion

In this paper, I have proposed an analysis of the Japanese ECM. I argued that feature transmission from the complementizer *to* is optional, and this makes A-movement to the embedded Spec, CP possible. Further, building on Şener's (2008) analysis of the Turkish ECM, I have proposed the micro-parameter in (53), repeated here as (56).

(56) FT from Top^0 is optional in Turkish, whereas FT from the C^0 *to* is optional in Japanese.

The proposal in this paper has a few consequences. First, it predicts that there will be languages in which an ECM subject is obligatorily construed as a focus if the micro-parameter can set Foc^0 to be a C^0 that optionally transmits its phi-features. Second, it might help determine the precise mechanism of Transfer. It is customarily assumed, as in Chomsky (2008), that the complement of the head of a phase is transferred to the interpretative components upon the completion of the phase. According to this view, when the entire embedded CP in the Turkish and Japanese ECM constructions is completed, the complement of its head should immediately get transferred. However, since it contains copies of the subject that has moved to Spec, CP and these copies are yet to be checked for Case, the derivation would presumably crash. I leave the examination of these consequences for future research.

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