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# Syntactic Operations on Heads and their Theoretical Implications

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# Syntactic Operations on Heads and their Theoretical Implications

Shigeki Taguchi

University of Connecticut, 2015

This thesis examines Case-licensing and its consequences. I claim that there are several cases where a DP is base-generated in SpecCP, and examine how it is Case-licensed. The relevant cases are the Exceptional Case-marking (ECM) construction in Japanese and the *mean* construction in English (as in *What do you mean that I'm a liar?*). In particular, I argue that the embedded subject of Japanese ECM is base-generated in SpecCP as a bare topic (i.e., it is an instance of embedded bare topicalization), and is Case-licensed by the matrix verb. I discuss two conflicting sets of data regarding Japanese ECM; one shows that the ECMed subject undergoes overt object shift, and the other shows that it remains in the embedded clause. I demonstrate that these data can all be successfully handled if the ECMed subject undergoes covert object shift. More generally, I argue for an approach where Case-licensing requires merger with a Case-licensing head (cf. Bošković 2007, Saito 2012). From this perspective, I investigate head excorporation theory (cf. Saito 2012, Shimada 2007, Tonoike 2009, etc.), under which heads are base-generated in complex forms such as  $\nu$ -V and C-T, and  $\nu$  and C excorporate and merge with VP and TP, respectively, projecting as  $\nu$ P and CP. I claim that covert head excorporation is crucially relevant to scope calculation in Japanese. I discuss an alternation between accusative objects and nominative objects in the potential construction in Japanese. Arguing for the claim that the structural position of these objects directly reflects their scope interpretation (with no Quantifier Raising involved), I argue that scope ambiguities arise depending on the options regarding which complex head the object merges with and head excorporation of the scope taking head. I extend the proposal to the causative construction in Japanese, and also provide an account of Case patterns in Japanese causatives.

Syntactic Operations on Heads and their Theoretical Implications

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A Dissertation

Submitted in Partial Fulfillment of the

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at the

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2015

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APPROVAL PAGE

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# Chapter 1

## Introduction

### 1.1 Overview

Whether head movement applies in syntax or not is an issue that has been under considerable debate recently (e.g. Baker 1988, Bobaljik 1995, Citko 2008, den Dikken 2006a, b, 2007, Donati 2006, Lechner 2006, 2007, Matushansky 2006, Pesetsky and Torrego 2001, 2004, 2007, Pollock 1989, Roberts 1998, 2001, 2010, 2011, and Travis 1984, contra Boeckx and Stjepanović 2001). Since Pollock (1989), it has been taken for granted that English is different from French in that it does not involve V-to-T head movement, which is present in French. This is illustrated by (1) and (2), where the adverb intervenes between the verb and the object as a result of V-movement:

- (1) a. \*John kisses often Mary.  
b. John often kisses Mary.
- (2) a. Jean embrasse souvent Marie.  
John kisses often Mary  
b. \*Jean souvent embrasse Marie.  
John often kisses Mary  
'John often kisses Mary.'

One problem with head movement as a syntactic operation is that it violates the Extension Condition. For this reason and others, some researchers have argued that head movement applies in the PF component. For example, Boeckx and Stjepanović's (2001),

on the basis of Lasnik's (1999a, b) analysis, point out that in pseudogapping it is necessary that object shift applies but V-raising does not, as shown in (3). However, in the standard cases without ellipsis, both object shift and V-raising must apply, as shown in (4), hence the verb must precede the object:<sup>1</sup>

- (3) a. Debbie ate the chocolate, and Kazuko did the cookies [<sub>VP</sub> ~~eat~~ *t*<sub>OBJ</sub>].  
 b. \*Debbie got chocolate, and Kazuko got [<sub>VP</sub> ~~*t*<sub>V</sub>~~ chocolate] too.
- (4) a. Debbie ate the chocolate, and Kazuko drank milk [<sub>VP</sub> *t*<sub>V</sub> *t*<sub>OBJ</sub>].  
 b. \*Debbie ate the chocolate, and Kazuko milk [<sub>VP</sub> drank *t*<sub>OBJ</sub>].

Given these data, Boeckx and Stjepanović arrive at the following three conclusions: first, object shift applies in overt syntax; second, ellipsis and head movement are PF operations, which compete with each other giving rise to either (3)a or (4)a; and finally, (4)b is ruled out by post-Spell-Out (i.e. PF) requirements for triggering head movement. This led them to conclude that head movement is a PF operation.

A number of authors have however argued that head movement takes place in syntax. For example, Roberts (2011) argues that the Negative Polarity Item (NPI) *anyone* in (5) is licensed after the application of subject-auxiliary inversion, which is taken to be an instance of T-to-C movement. Given that the NPI licensing condition is an LF condition (see Uribe-Echevarria 1994), it follows that head movement must apply in the syntax:

- (5) Did anyone see you?

---

<sup>1</sup> V-raising here should target some intermediate head between *v* and T.

Lechner (2006, 2007) argues that the modal auxiliary *can* in (6) can be interpreted either in the moved position (where *can* takes scope over negation), or in the base (i.e. the first-merged position, where *can* falls within the scope than negation), the latter being preferred:

(6) John  $can_i$  not  $t_i$  come along today. (not > *can*, ??*can* > not)

The availability of the former reading indicates that movement of *can* is not an instance of PF movement; rather, it is an instance of syntactic movement that can be reconstructed in LF.

In this dissertation, I investigate another syntactic operation involving heads; namely, head excorporation (cf. Saito 2012, Shimada 2007, Tonoike 2009, etc.). Under the head excorporation theory I am pursuing here, heads are base-generated in complex forms such as  $\nu$ -V and C-T, from which  $\nu$  and C excorporate and merge with VP and TP, respectively, projecting as  $\nu$ P and CP. The derivations do not violate the Extension Condition. I claim that head excorporation, in fact covert head excorporation, is crucially relevant to scope calculation in Japanese. I discuss an alternation between accusative objects and nominative objects in the potential construction in Japanese, and claim that the structural position of these objects directly reflects their scope interpretation (cf. Koizumi 1994, 1995, 1998, Nomura 2003, 2005a, 2005b, Tada 1992, 1993, Ura 1996, 1999, 2000, etc., contra Takahashi 2010, 2011). I also claim that the lower scope interpretation of nominative objects over the potential suffix obtains due to head excorporation.

I further extend the proposal to the causative construction in Japanese. The scope facts observed in the potential construction carry over to the potential-causative construction; I account for the relevant data on the basis of the excorporation theory. I also discuss why the potential-causative construction is allowed, whereas the causative-potential construction is disallowed, and argue that the latter is excluded by way of a compositional  $\theta$ -role assignment hypothesis.

I also discuss Case-licensing mechanisms. Chomsky (2008) proposes that C and  $v$  are phase heads and bear Agree-features. He assumes that these Agree-features are inherited from C to T and  $v$  to V, respectively. Note that under Chomsky's approach, Case-checking (Case-valuation under Chomsky's terms) is simply a reflex of Agree-feature checking between the subject and T on the one hand, and the object and V, on the other hand. This means that Case essentially plays only a supporting role in the syntax. Given this kind of characterization of Case-checking, however, one important question arises; namely, it is unclear how we can handle cases where the object (accusative subject, more precisely) is Case-licensed in a position higher than V, which is supposed to Case-license accusative NPs under Chomsky's system. I discuss Bošković's (2004, 2007) arguments and data that show that overt object shift is obligatory for the Exceptionally Case-marked (ECMed) subject but optional for the direct object in English. Here, I present only one of the arguments to be discussed in Chapter 2. The relevant data are based on the Superiority Condition. The Superiority Condition requires that the structurally highest *wh*-phrase undergoes *wh*-movement in multiple *wh*-contexts. This is illustrated by the contrast between (7)a and (7)b:



- (7) a. Who did John tell to buy a book?  
b. \*What did John tell who to buy?

In light of this, note the lack of Superiority effects in (8):

- (8) a. What did you buy when?  
b. When did you buy what?

On the basis of (8), Bošković argues that overt object shift is optional for direct objects. If *what* in (8) undergoes overt object shift, it is higher than *when* at the relevant point of the derivation, and thus subject to *wh*-movement, as in (8)a. However, if *what* does not undergo overt object shift, it is lower than *when*, and thus cannot undergo *wh*-movement, allowing *when* to take priority when it comes to *wh*-movement, as in (8)b. The fact that both (8)a and (8)b are well-formed shows that *what* undergoes overt object shift only optionally in simple transitive constructions. (9), on the other hand, shows that the optionality observed in direct object contexts is not available in ECM contexts. In other words, the ill-formedness of (9)b indicates that *whom* must be higher than *when* prior to *wh*-movement:<sup>2</sup>

- (9) a. Whom did you prove to be guilty when?  
b. \*When did John prove whom to be guilty?

---

<sup>2</sup> Here, I cite the relevant examples from Bošković (1997b) and follow his judgments. There is, however, some speaker variation regarding the judgments on Superiority effects here.

Bošković proposes an account of this state of affairs where accusative Case in English can be either structural or inherent, with the former involving obligatory object shift. I examine the issue in light of Chomsky's (2008) proposal that V inherits Agree- and Edge-features from  $v$  by focusing on the conditions on when feature inheritance takes place. I also consider these patterns from the perspective of the head excorporation theory, where the object can be merged either with V or the V- $v$  complex. Under the former option, the object does not c-command  $v$  in its merged position, hence I argue that in order to have its Case valued, it must move to Spec $v$ P and c-command  $v$ . The basic assumption here is that what motivates movement is the uninterpretable Case-feature of the moving NP (cf. Bošković 2007, 2008, 2011).

Throughout the dissertation, I claim that Case-licensing plays a crucial part in syntax, in contrast to Chomsky's (2008) approach where Case plays only a supporting role in the syntax. I essentially follow Saito (2012) in that merger is prerequisite for Case; in other words, in order for an NP to be Case-valued, it must be merged with the Case-licensing head. This is consistent with Bošković's (2007, 2008, 2011) claim that structural Case is an uninterpretable feature and that it requires the NP to c-command its Case-checker. Moreover, I claim that a functional element can value Case only within one maximal projection.

## **1.2 Organization**

In Chapter 2, I focus on A-movement out of CP which in fact takes place in English Exceptional Case-marking (ECM). Under the assumption that ECM infinitivals in English are CPs (cf. Bošković 2007, Despić 2011, Kang 2012, McCloskey 2000, Ormazabal 1995, Takahashi 2011, etc.) and that the ECMed subject undergoes overt

object shift to the matrix A-position (cf. Bošković 1997b, 2007, Koizumi 1993, 1995, Lasnik 1999a, b, Lasnik and Saito 1991, Postal 1974, etc.), the relevant derivation should result in A-to-A' movement followed by A'-to-A movement, which has traditionally been taken as improper movement, hence disallowed. In this chapter, I address the problem. I also discuss the broader issue of the possibility of Case-marking nominal elements in A'-positions, based on English and Japanese ECM constructions, including several related constructions, and discuss the issue of Agee-feature inheritance. I argue that Japanese ECMed subjects are generated in the same position as embedded bare topics.

In Chapter 3, I introduce the theory of phrase structure building and head excorporation proposed by Shimada (2007) and Tonoike (2009), on the basis of which Saito (2012) accounts for the scope facts in the Japanese potential construction where a nominative object takes higher scope than the potential suffix, but an accusative object does not, without recourse to the assumption that Case-valuation determines phasehood, argued for in Takahashi (2010, 2011). On the basis of the data showing that the nominative object in the Japanese potential construction sometimes takes lower scope than the potential suffix, I claim that head excorporation is constrained by Scope-Order Correspondence, a reinterpretation of Scope Transparency put forth by Bobaljik and Wurmbrand (2012) and Wurmbrand (2008, 2010), which states that a covert operation can create a new scope relation only if there is no overt operation that yields it. I then apply the proposed analysis to the Japanese Exceptional Case-marking constructions. More specifically, I consider examples that show that the embedded accusative subject must stay in the embedded clause and does not undergo object shift (Hiraiwa 2001, 2005), as well as examples that show that the embedded accusative subject allows inverse scope with respect to the matrix subject, which apparently supports the overt object analysis of

the Japanese Exceptional Case-marking (Tanaka 2002). I show that all these facts can be accounted for if that the embedded accusative subject is in the lower clause overtly, but undergoes covert object shift, in accordance with SOC and the Case-licensing mechanisms proposed by Bošković (2007, 2011) and Saito (2012).

In this Chapter 4, I extend the head excorporation theory sketched out in Chapter 3 to other constructions that involve an accusative subject or object. I first discuss Case-dropped accusative NPs; namely, bare NPs which should otherwise bear accusative. I claim that Case-drop is an operation that deletes the Case-marker at Transfer/Spell Out under adjacency with the verb. Next, I take up the topic of Double-*o* Constraint. Paying close attention to two types of Double-*o* Constraint, the Surface Double-*o* Constraint (SDoC) and the Deep Double-*o* Constraint (DDoC), I claim that the V-*v* complex is allowed to participate in multiple Case-valuation just like the T-C phase. Noting that the DDoC violation cannot be remedied even under the strategies effective for the SDoC violation, I arrive at the conclusion that there is a special mechanism that prevents an accusative causee from cooccurring with the accusative theme, and examine the nature of this mechanism. Finally, I consider why causative-potentials are allowed, but potential-causatives are disallowed. I attribute the contrast to the existence of an agentive  $\theta$ -role. I also analyze causative-potentials in terms of Takahashi's (2010 2011) observation that the scope facts found in potentials are retained in causative-potentials, and discuss the interaction among potentials, causatives, and honorification.

## **Chapter 2**

### **A-movement out of CP and Case-marking in A'-positions**

#### **2.1 Introduction**

In this chapter, I focus on A-movement out of CP that is supposed to be involved in English Exceptional Case-marking (ECM). Under the assumption that ECM infinitivals in English are CPs (cf. Bošković 2007, Despić 2011, Kang 2012, McCloskey 2000, Ormazabal 1995, Takahashi 2011, etc.) and the ECMed subject undergoes overt object shift to the matrix A-position (cf. Bošković 1997b, 2007, Koizumi 1993, 1995, Lasnik 1999a, b, Lasnik and Saito 1991, Postal 1974, etc.), the relevant derivation should result in A-to-A' movement followed by A'-to-A movement, which has traditionally been taken to involve improper movement, hence disallowed. In this chapter, I address the issue. I also discuss the broader issue of the possibility of Case-marking nominal elements in A'-positions, based on English and Japanese ECM constructions, including several related constructions. A new case of this type from English will be discussed and it will be argued that Japanese ECMed subjects should be treated on a par with bare topics.

#### **2.2 Overt Object Shift in English Exceptional Case-marking**

Following Bošković (1997b, 2002, 2007, 2008), Koizumi (1993, 1995), and Lasnik (1999a, b), Lasnik and Saito (1991), Postal (1974), among others, I claim that English ECM involves overt shift to SpecAgrOP/SpecvP. Let us examine the claim that ECMed subjects undergo object shift into the matrix clause. Lasnik and Saito (1991) and Lasnik

(1999a, b) provide four pieces of evidence supporting this claim.<sup>1</sup> First, the ECMed subject in (1)a, as compared to (1)b, binds the reciprocal anaphor in the matrix adjunct. This means that *two men* is in the matrix clause in (1)a, but not in (1)b:

- (1) a. The DA proved two men<sub>i</sub> [ *t<sub>i</sub>* to have been at the scene of the crime ] during each other's<sub>i</sub> trials.
- b. ?\*The DA proved [ that two men<sub>i</sub> were at the scene of the crime ] during each other's<sub>i</sub> trials.

Second, Weak Crossover (WCO) mitigation in (2)a lends further support for the object shift analysis of ECM. For ease of exposition, let us suppose that *no suspect* in (2) is subject to Quantifier Raising (QR). If the ECMed subject *no suspect* in (2)a remained in the embedded clause in overt syntax, QR would give rise to a WCO configuration, just as observed in (2)b.<sup>2</sup> The well-formedness of (2)a follows if *no suspect* has already been raised to the matrix clause at the point when QR applies.

- (2) a. The DA proved no suspect<sub>i</sub> [ *t<sub>i</sub>* to have been at the scene of the crime ] during his<sub>i</sub> trials.
- b. ?\*The DA proved [ that no suspect<sub>i</sub> was at the scene of the crime ] during his<sub>i</sub> trials.

---

<sup>1</sup> There is some speaker variation regarding the contrast between infinitive counterparts and the tensed counterparts in (1) through (4). See Pettiward (1999) for discussion.

<sup>2</sup> Of course, the ill-formedness of (2)b might simply be due to the clause-boundedness of QR.

Third, in (3)a, but not in (3)b, *any*, a Negative Polarity Item (NPI) in the matrix adjunct, is successfully licensed. This contrast follows if the NPI licenser *no one* is in the matrix clause in (3)a, but not in (3)b.

- (3) a. The DA proved no one<sub>i</sub> [ *t<sub>i</sub>* to have been at the scene of the crime ] during any of the trials.  
b. ?\*The DA proved [ that no one was at the scene of the crime ] during any of the trials.

Finally, as observed in (4)a, but not in (4)b, *Bob*, an R-expression, induces a violation of Condition C of the Binding Theory. This means that *him* in (4)a is, but *he* in (4)b is not, in the matrix clause.

- (4) a. \*Joan believes him<sub>i</sub> [ *t<sub>i</sub>* to be a genius ] even more fervently than Bob<sub>i</sub> does.  
b. Joan believes [ he<sub>i</sub> is a genius ] even more fervently than Bob<sub>i</sub> does.

Bošković (1997b, 2002, 2004) also provides arguments that the object shift in English ECM is overt. I introduce four of them here. First, Quantifier Float (FQ) is possible with the ECMed subject, but it is not with the direct object, as demonstrated in (5):

- (5) a. I believe the students all to have left.  
b. \*I believe the students all (sincerely).

Given that FQs are associated with traces (cf. Sportiche 1988), it seems that the ECMed subject in (5)a involves movement (plausibly, movement out of the infinitive), but the direct object in (5)b does not.

Second, the linear ordering between the ECMed subject and the adverbial phrase modifying the matrix clause tells us that the ECMed subject is overtly raised to the matrix clause. This is exemplified in (6) (cf. Kayne 1985, Postal 1974):

- (6) a. I've believed John for a long time now to be a liar.  
b. I can prove Bob easily to have outweighed Martha's goat.  
c. I have found Bob recently to be a liar.

Third, the well-formedness of the coordination examples in (7) lends further support for the overt object shift analysis of the ECMed subject. Note that both of the subjects (i.e. *Jim* and *Mary* in (7)a and *Peter* and *Mary* in (7)b) in the coordinated clauses are Case-marked as accusative. As a result, it needs to be assumed that what is coordinated in (7) is the projection that licenses the accusative Case; namely, AgrOP or vP, whose Spec position is occupied by the ECMed subjects:

- (7) a. John believes Jim to be crazy and Mary to be smart.  
b. John believed Peter to have played football and Mary to have played basketball.

Finally, the Superiority Condition requires that only the structurally highest *wh*-phrase can be the target of *wh*-movement in multiple *wh*-contexts. If *what* in (8) undergoes overt object shift, it is higher than *when* at one point in the derivation, and thus



subject to *wh*-movement. However, if *what* does not undergo overt object shift, it is lower than *when* throughout the derivation, hence cannot undergo *wh*-movement. The well-formedness of both (8)a and (8)b shows that *what* undergoes overt object shift only optionally in simple transitive constructions:

- (8) a. What did you buy when?  
b. When did you buy what?

(9), on the other hand, shows that the optionality observed in direct object contexts is not available in ECM contexts. In other words, the data indicate that *whom* must be higher than *when* prior to *wh*-movement (for another argument, see (11) below).

- (9) a. Whom did you prove to be guilty when?  
b. \*When did John prove whom to be guilty?

Incidentally, Bošković's (2002) observation that (10)a is well-formed indicates that the bracketed direct object has not undergone overt object shift. Takahashi (1994) claims that once a constituent has undergone movement, further extraction out of it is prohibited. Under this assumption, it follows that the bracketed direct object in (10)a has, but the one in (10)b has not, undergone movement that precludes further extraction out of it:<sup>3</sup>

---

<sup>3</sup> Examples like (i), however, raise an issue for Superiority in general if they are acceptable on a non-D-linked reading:

(i) What<sub>i</sub> did you buy pictures of *t<sub>i</sub>* when?

- (10) a. Who<sub>i</sub> did Bill select [ a painting of  $t_i$  ]?  
 b. \*Who<sub>i</sub> was [ a painting of  $t_i$  ]<sub>j</sub> selected  $t_j$ ?

I conclude from the data above that the ECMed subject is moved to a position structurally higher than the matrix clause VP adjunct. In the light of the current framework, I assume that the ECMed subject is shifted to the matrix outer SpecvP, from which it c-commands the matrix clause VP adjunct. Note crucially that (4)a and (9)b show that overt object shift under consideration is mandatory, since they demonstrate that the derivation where the ECMed subjects (i.e. *him* and *whom*, respectively) remain in the embedded clause leads to ill-formedness. Thus, in what follows, I assume that in English the ECMed subjects undergo mandatory overt object shift to the matrix outer SpecvP, whereas direct objects optionally undergo overt object shift.

### 2.3 A-movement out of CP

Thus far, I have provided data that show that ECMed subject is subject to overt object shift in English. One question that arises is what the categorial status of ECM infinitivals is in English. Regarding this question, many researchers (cf. Bošković 2007, Despić 2011, Kang 2012, McCloskey 2000, Ormazabal 1995, Takahashi 2011, etc.) maintain that ECM infinitivals in English are CPs, rather than IPs (cf. Chomsky 1995 and many others). For example, McCloskey (2000) demonstrates that the CP analysis of English ECM is correct on the basis of the data in (11) from West Ulster English:

- (11) a. \*Who did you arrange for your mother all to meet at the party?  
 b. Who did you expect your mother all to meet at the party?

McCloskey claims that the embedded subject in (11)a cannot undergo object shift because it is Case-marked by the complementizer *for* in the infinitival SpecTP, leaving no space for *all* to be stranded. However, (11)b is well-formed because the ECMed subject *your mother* has undergone object shift, leaving space for the FQ *all* associated with *who* to be stranded in front of *to*. Since McCloskey argues that this kind of float is possible only in SpecCP it follows that the infinitive from which object shift takes place is a CP. On the basis of McCloskey's data, I follow the CP analysis of English ECM throughout this dissertation.

However, if ECM infinitivals in English are indeed CPs, the derivations discussed above should involve A-movement out of CP, which has traditionally been taken to result in improper movement.<sup>4</sup> More specifically, if the ECMed subject starts out in an embedded A-position and lands in a matrix A-position via the embedded SpecCP, an A'-position, the derivation should violate the ban on improper movement. One may want to try to reduce the ban on improper movement to a Last Resort violation (cf. Bošković 1997b); namely, (12) may be considered to be ruled out just because the subject *John* is moved from an embedded Case-checking position to another Case-checking position in the matrix clause:

(12) \* $\text{John}_i$  seems that  $t_i$  is intelligent.

---

<sup>4</sup> There is, however, some controversy regarding this issue (see e.g. Messick 2013, Obata 2010 and works cited therein).

However, the example in (13) given below shows that this is not enough. Here, the subject *John* does not start out from a Case-checking position, and the sentence is ruled out due the ban on improper movement:

(13) \*John<sub>i</sub> seems that it is likely  $t_i$  to win the race.

The question is then why the ECMed subject can raise to the matrix object position by way of the embedded SpecCP. I will address the issue in the next section, under the assumption that A-A'-A movement is indeed impossible.

### 2.3.1 Optionality of Feature Inheritance

Recall that I assume, following Bošković (1997b, 2002), that object shift of direct objects is optional. This is because the accusative on direct objects can be either structural or inherent (cf. Bošković 2002). If the inherent Case option is taken, the Case for the direct object is licensed with  $\theta$ -role assignment (cf. Chomsky 1986). Bošković (2007) argues that inherent Case is not necessarily an uninterpretable feature, hence overt object shift of the NP is not necessary. On the other hand, if the structural Case option is taken, the Case for the direct object is uninterpretable in the sense of Bošković (2007, 2008, 2011), hence overt object shift is necessary (cf. Chapter 1).

Let us examine how Bošković's (2007, 2008, 2011) Case-licensing mechanism, where overt object shift is obligatory for the ECMed subject but optional for the direct object, can be captured under Chomsky's (2008) mechanism of Agree and Case-valuation outlined in Chapter 1. I claim that feature inheritance is in principle optional, and is crucially contingent on  $\theta$ -marking in overt syntax. More specifically, V in English

inherits the Agree- and Edge-features from  $v$  only when V and OBJ undergo  $\theta$ -feature checking in overt syntax (cf. Bošković and Takahashi 1998, Lasnik 1999b, etc.). The underlying assumption here is that Case assignment and  $\theta$ -marking are closely correlated with each other (cf. Bošković 2006, Chomsky 1986, etc.). In particular, V can Case-license a nominal element if it inherits Agree- and Edge-features from  $v$ , but this is only possible if it  $\theta$ -marks the relevant element. In other words, I assume that the feature inheritance derivation will fail if V does not  $\theta$ -mark the element that it Case-marks. Thus, even though the ECM verb does  $\theta$ -mark the infinitival clause, this is irrelevant for the applicability of feature inheritance, since I assume that ECM infinitivals do not bear Case (see Stowell 1981). The only option here is then the derivation without feature inheritance. Let us consider the English data discussed above. The examples in (1) through (4) are repeated as (14) through (17):

(14)a. The DA proved two men<sub>i</sub> [  $t_i$  to have been at the scene of the crime ] during each other's<sub>i</sub> trials.

b. ?\*The DA proved [ that two men<sub>i</sub> were at the scene of the crime ] during each other's<sub>i</sub> trials.

(15)a. The DA proved no suspect<sub>i</sub> [  $t_i$  to have been at the scene of the crime ] during his<sub>i</sub> trials.

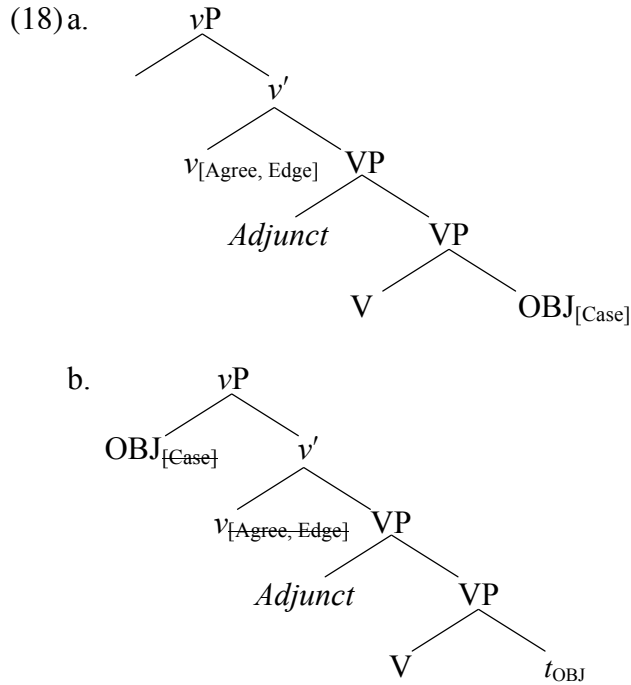
b. ?\*The DA proved [ that no suspect<sub>i</sub> was at the scene of the crime ] during his<sub>i</sub> trials.

- (16) a. The DA proved no one<sub>i</sub> [  $t_i$  to have been at the scene of the crime ] during any of the trials.
- b. ?\*The DA proved [ that no one was at the scene of the crime ] during any of the trials.
- (17) a. \*Joan believes him<sub>i</sub> [  $t_i$  to be a genius ] even more fervently than Bob<sub>i</sub> does.
- b. Joan believes [ he<sub>i</sub> is a genius ] even more fervently than Bob<sub>i</sub> does.

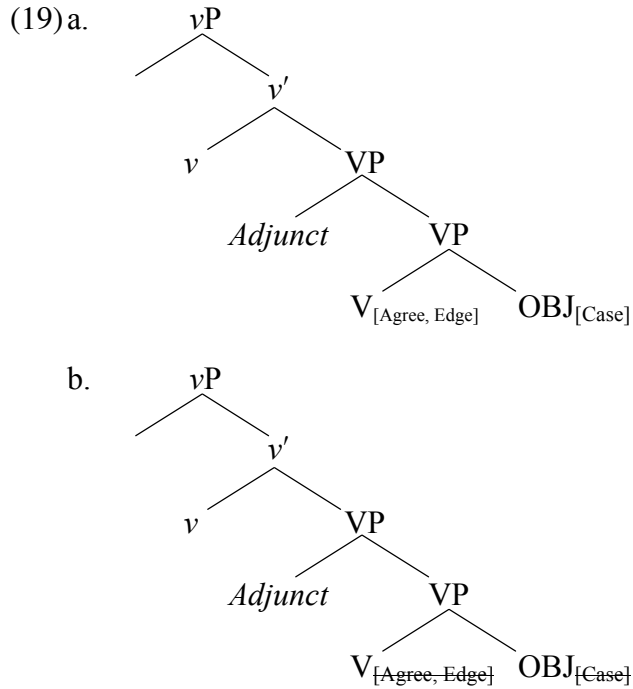
In the ECM counterparts (i.e. the a-examples) in (14) through (17), feature inheritance never applies, hence the accusative subject obligatorily moves to the outer SpecvP, checking its Case-feature against the Agree-features on  $v$ . The Edge-feature is satisfied by merging OBJ with  $v$ . (18)a below illustrates the base-generated structure for the ECM counterparts in (14) through (17), from which (18)b is derived:<sup>5</sup>

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<sup>5</sup> I mark both ECMed subjects and direct objects as ‘OBJ.’



In direct object contexts, there are two possibilities. One is the inherent Case option, where feature inheritance from  $v$  to  $V$  applies. In this case, the direct object does not move at all; if it does, the derivation would result in an anti-locality violation (i.e. movement cannot be too short and must cross at least one phrasal category; cf. e.g. Abels 2003, Bošković 2012a, b, 2014). Thus, the direct object checks its Case-feature against the Agree-features on  $V$  in a head-complement (mutual c-command) configuration by Agree. This is a possibility here because the verb  $\theta$ -marks the object. Note that (19)a, the base-generated structure, and (19)b, the derived structure, are identical except that the Agree- and Edge-features inherited from  $v$  are checked within VP. Note that I assume here that the Edge-feature is satisfied by merging with the element that the relevant head agrees with. OBJ then must move to SpecvP to check the Edge-feature in (18), but it can check it without any movement in (19):



Let us consider the other option; namely, the structural Case option. Here,  $v$  does not transmit Agree- and Edge-features to  $V$ .  $OBJ$  then moves to the outer Spec $vP$ , checking its Case-feature against the Agree-features on  $v$ . Note that this is exactly what happens in ECM contexts, where feature inheritance never applies, as illustrated in (18). Another way to look at this is that feature inheritance is not in principle optional, as I assumed above, but that the verb can  $\theta$ -mark either early (i.e. in overt syntax) or in LF, with feature transfer applying only if the  $\theta$ -features of the verb have been checked overtly (the correlation between  $\theta$ -role and Case-assignment by  $V$  still holding).<sup>6</sup>

Now, let us turn to (8) and (9), repeated as (20) and (21):

(20) a. What did you buy when?

b. When did you buy what?

---

<sup>6</sup> This option requires a separate LF component and thus is incompatible with the single-cycle syntax.



- (21) a. Whom did you prove to be guilty when?  
       b. \*When did John prove whom to be guilty?

In (20)a, OBJ takes the structural Case option, which means that feature inheritance does not apply. Here, the object *what* moves to SpecvP, and is subject to *wh*-movement from the position which is higher than that of the adjunct. In (20)b, on the other hand, OBJ takes the inherent Case option, hence the Agree- and Edge-features are inherited by V. Thus, the object *what* remains in VP, and *when* is subject to *wh*-movement. Note that in (21), matrix V never  $\theta$ -marks OBJ (i.e. V and the ECMed subject never undergo  $\theta$ -feature checking). Hence, Agree- and Edge-features remain in the matrix *v*, and *whom* in (21) must move to the matrix SpecvP, from where it undergoes *wh*-movement in accordance with the Superiority Condition. Note crucially that, when feature inheritance never applies, *v* retains both the Agree- and Edge-features, as illustrated in (18)a. Essentially following Chomsky, I assume that A-properties are associated with Agree-features, and that A'-properties are associated with the Edge-feature of phasal heads. It follows then that SpecvP counts as an A- and A'-position at the same time here. Thus, under the proposed analysis, being an instance of movement to an A/A'-position, object shift out of the embedded CP never results in improper movement.

An alternative analysis might be to adapt Takeuchi's (2010) analysis for Japanese ECM to its English counterpart (cf. 2.4.2). Takeuchi claims that the ECMed subject in (22)a, as opposed to the nominative subject in (22)b, undergoes optional A-movement like scrambling to the matrix clause (cf. Bruening 2001, Hiraiwa 2001, 2005) across the embedded CP boundary:

- (22) a. Taroo-wa Hanako-o<sub>i</sub> [ *t<sub>i</sub>* tensai da to ] omotteiru.  
           Taro-top Hanako-acc genius is that be thinking
- b. Taroo-wa [ Hanako-ga tensai da to ] omotteiru.  
           Taro-top Hanako-nom genius is that be thinking  
           ‘Taro believes that Hanako is a genius.’

The question is how to implement this movement, given the traditional assumption that SpecCP is an A'-position. Takeuchi maintains that the complementizer *to* ‘that’ in Japanese optionally transmits Agree-features (i.e.  $\phi$ -features in Takeuchi’s terms) to T. In case the relevant feature transmission takes place, T Case-values the embedded subject as nominative, as shown in (22)b. However, if it does not take place, Agree-features reside in C. The embedded subject thus moves to SpecCP, but the movement in question can be regarded as an instance of A-movement, because it is motivated by checking of the Agree-features. Note that the embedded SpecCP is visible to the matrix V, in accordance with Phase Impenetrability Condition (PIC) defined in (23):

- (23) In phase  $\alpha$  with head H, the domain of H is not accessible to operations outside  $\alpha$ , only H and its edge are accessible to such operations.

Thus, V, which has inherited Agree-features from *v*, successfully Case-values the embedded subject as accusative, resulting in the output given in (22)a.

Now, keeping Takeuchi’s idea in mind, let us suppose that the embedded C in English ECM never transmits Agree-features to the infinitival T that it selects. Then, the Agree-features reside in C, and the embedded subject is allowed to undergo A-movement

to the embedded SpecCP to check the Agree-features. The ECMed subject is further allowed to undergo overt object shift to the matrix SpecvP, also an instance of A-movement, under the assumption that the Agree-feature inheritance from *v* to *V* does not take place in ECM contexts, as I claimed above.

## 2.4 Consequences: Case-valuation in A'-positions

The system developed so far seems to allow some operations that are traditionally considered to involve improper movement. For example, *v* can in principle Case-value NPs that are base-generated in A'-positions, and allow them to undergo movement to the outer SpecvP, which is traditionally taken to be A-movement, if feature inheritance from *v* to *V* fails to apply. In the rest of this chapter, I would like to demonstrate that the prediction is borne out.

### 2.4.1 Complement Clauses of *Mean*

As shown in (24), *mean* can take a DP complement or a clausal complement, but not both of them at the same time:

- (24) a. Do you mean me?  
b. Do you mean that I'm a liar?  
c. \*Do you mean me that I'm a liar?

Given this observation, the well-formedness of (25) seems rather surprising, since it appears that *mean* may take both a DP complement and a clausal complement at the same time, as long as the former is realized as a *wh*-phrase:

(25) What do you mean that I'm a liar?

Intuitively, *what* in (25) has the following two properties. One is that *what* should be treated in the same way as other *wh*-phrases; namely, it is derived via *wh*-movement from a lower position and has its accusative Case checked.<sup>7</sup> The other property is that *what* should be somehow associated with *mean*'s clausal complement. The problem, however, is that *what* in (25) does not appear to have any argument position from which it could undergo *wh*-movement. Given that *mean* basically cannot take both a DP complement and a clausal complement at the same time, as shown by (24)c, the most plausible candidate seems to be the position for a DP taking an appositive clause; namely, the position for *the idea* in (26)a.

(26)a. Do you mean [<sub>DP</sub> the [<sub>NP</sub> idea [<sub>CP</sub> that I'm a liar ] ] ]?

b. What<sub>i</sub> do you mean [<sub>DP</sub> [<sub>NP</sub> t<sub>i</sub> [<sub>CP</sub> that I'm a liar ] ] ]?

However, note that the appositive clause forms a constituent with the DP, as illustrated in (26)b. Given this, it seems implausible that *what* alone has undergone *wh*-movement to the matrix SpecCP, stranding the appositive clause behind, as in (26)b. Such movement violates the Condition on Uniformity of Chains (Chomsky 1995), because *what* is a head in its base position and ends up in a Spec position. Thus, I assume that the clausal complement of (25) looks like (27)a, and the whole sentence is derived as illustrated in (27)b.<sup>8</sup>

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<sup>7</sup> In fact, *what* in question does not necessarily have to be an argument (cf. Huang and Ochi 2004), given that adjuncts also can be Case-marked crosslinguistically. What is crucial here is that *what* is base-generated in an A'-position, and is Case-valued in an A-position, as discussed below.

<sup>8</sup> Note, however, that some speakers allow expressions like (i):

- (27) a. you [<sub>VP</sub> *v* mean [<sub>CP</sub> what [<sub>C</sub> that I'm a liar ] ] ]  
 b. What<sub>i</sub> do you [<sub>VP</sub> *t<sub>i</sub>* *v* mean [<sub>CP<sub>i</sub></sub> *t<sub>i</sub>* [<sub>C</sub> that I'm a liar ] ] ]?

Let us consider the derivation of this sentence more closely. In tandem with the assumption in 2.3.2 that feature inheritance is crucially contingent on  $\theta$ -marking in overt syntax, it should be noted that *mean* does not  $\theta$ -mark *what*, hence  $\theta$ -feature checking between them never applies. This is exactly what happens in ECM contexts; namely, the matrix *V* neither  $\theta$ -marks nor enters a  $\theta$ -feature checking relation with the ECMed subject. Crucially, these  $\theta$ -marking properties of *V* are visible to *v* in (27)b as well. As a result, feature inheritance from *v* to *V* is suppressed, and hence *what* can undergo overt object shift to the outer Spec<sub>VP</sub>, and then *wh*-movement to the matrix Spec<sub>CP</sub>. Note also that the relevant movement does not result in improper movement, because the outer Spec<sub>VP</sub> counts as an A- and an A'-position simultaneously, since *v* retains both Agree- and Edge-features, as claimed above.

A remaining issue concerns the ungrammaticality of (28):

- (28) \*Who means what that I'm a liar?

Such examples can be accounted for in several ways. I discuss two of the possibilities here. First, there are often cases where ECM requires *wh*-movement. One such case concerns *wager*-class verbs as the matrix verb. Consider the contrast between (29)a and (29)b (cf. Bošković 1997b, Postal 1974, Ura 1993 and many others):

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(i) What do you mean me?

- (29) a. Who did you wager to be smart?  
       b. \*You wagered John to be smart?  
       c. \*Who wagered who to be smart?

Verbs like *wager* can ECM only *wh*-traces. They cannot ECM DPs that do not undergo *wh*-movement, even *wh*-phrases in situ. It is possible that the contrast between (25) and (28) represents the same phenomenon.

Second, it is well-known that *the hell wh*-phrases must undergo *wh*-movement, as shown in (30):

- (30) a. Who the hell saw what?  
       b. \*Who saw what the hell?

*What* in examples like (25) is somewhat similar semantically to *the hell wh*-phrase (e.g. to some extent it expresses irritation), so it is possible that it cannot stay in situ for the same reason as the *hell wh*-phrases. In this respect, Huang and Ochi (2004) argue that *wh-the-hell* phrases are not arguments, and that they cannot stay in situ because non-argument *wh*-phrases in English in general cannot stay in situ. This analysis also extends to (28). In fact, it provides additional evidence for the current analysis.

#### 2.4.2 Exceptional Case-marking in Japanese

Another construction that I assume involves Case-valuation in an A'-position is ECM in Japanese. Hiraiwa (2001, 2005) argues that the ECMed subject in Japanese does not

undergo overt object shift.<sup>9</sup> However, there are some researchers who claim that Japanese ECM does involve overt object shift. Below, I summarize main points by Kuno (1976) and Tanaka (2002).

First, the relative position between the matrix adverb and the ECMed subject shows that overt object shift has applied in (31)a, but not in (31)b:

- (31) a. Taro<sub>i</sub>-wa Hanako-o<sub>i</sub> orokanimo [ *t<sub>i</sub>* tensai da to ] omotteiru.  
           Taro-top Hanako-acc stupidly genius is that be thinking
- b. \*Taro<sub>i</sub>-wa [ Hanako-ga orokanimo tensai da to ] omotteiru.  
           Taro-top Hanako-nom stupidly genius is that be thinking
- ‘Stupidly, Taro believes that Hanako is a genius.’

Second, the following data regarding scrambling support the overt object shift analysis. The ECMed subject in (32)a can undergo long-distance scrambling, but the embedded nominative subject in (32)b cannot. This is evidence that only the former has undergone overt object shift. Since Saito (1985), it has been standardly assumed that subjects cannot undergo long-distance scrambling (but see Ko 2007 for an opposing view). The grammaticality of (32)a suggests that the ECMed subject is raised to the object position first, and subsequently undergoes short-distance scrambling to the sentence initial position.

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<sup>9</sup> Here, I tentatively assume that Japanese does not employ the option of feature inheritance, regardless of whether V  $\theta$ -marks the argument. In Chapter 3, I will reexamine the Japanese ECM on the basis of the system advocated by Saito (2012), Shimada (2007), Tonoike (2006), which does not hinge on feature inheritance.

- (32)a. Hanako-o<sub>i</sub> Taro-ga t<sub>i</sub> [ t<sub>i</sub> tensai da to ] omotteiru.  
 Hanako-acc Taro-nom genius is that be thinking
- b. \*Hanako-ga<sub>i</sub> Taro-ga [ t<sub>i</sub> tensai da to ] omotteiru.  
 Hanako-nom Taro-nom genius is that be thinking  
 ‘Taro believes that Hanako is a genius.’

The data in (33) also show that the ECMed subject undergoes short-scrambling from the matrix domain. Mahajan (1990) and Saito (1992) maintain that short-distance scrambling is either A- or A'-movement, in contrast to long-distance scrambling, which is unambiguously A'-movement. Given the widely held view that only A-movement changes binding possibilities, it follows that the ECMed subject in (33)b undergoes overt object shift before scrambling.

- (33)a. ??Otagai-no<sub>i</sub> sensee-ga karera-o<sub>i</sub> [ t<sub>i</sub> tensai da to ] omotteiru.  
 each.other-gen teacher-nom they-acc genius is that be thinking
- b. Karera-o<sub>i</sub> otagai-no<sub>i</sub> sensee-ga t<sub>i</sub> [ t<sub>i</sub> tensai da to ] omotteiru.  
 they-acc each.other-gen teacher-nom genius is that be thinking  
 ‘Each other’s teacher believes that they are geniuses.’

Further evidence showing that scrambling of the ECMed subject into a matrix position is short-distance is given in (34). Simply put, the *why-who-who* sequence in (34)a is prohibited in Japanese, but can be saved by short-distance scrambling of one of the *who*’s (cf. Saito 1994). The amelioration effect in (34)b shows that the relevant scrambling is short-distance:



- (34) a. ?\*Naze dare-ga dare-o<sub>i</sub> [ *t<sub>i</sub>* tensai da to ] omotteiru no?  
 why who-nom who-acc genius is that be thinking Q
- b. Dare-o<sub>i</sub> naze dare-ga *t<sub>i</sub>* [ *t<sub>i</sub>* tensai da to ] omotteiru no?  
 who-acc why who-nom genius is that be thinking Q
- (lit.) ‘Who believes who is a genius why?’

Third, the applicability of QR diagnoses the structural position of the embedded subjects in (35). Assuming that QR exists in Japanese and is clause-bound, Tanaka claims that the scope ambiguity in (35)a, as opposed to (35)b, naturally follows if the ECMed subject is in the matrix clause:<sup>10</sup>

- (35) a. Dareka-ga minna-o<sub>i</sub> [ t<sub>i</sub> tensai da to ] omotteiru.  
 someone-nom everyone-acc genius is that be thinking  
 ‘Someone believes that everyone is a genius.’  
 (someone > everyone, everyone > someone)
- b. Dareka-ga [ minna-ga tensai da to ] omotteiru.  
 someone-nom everyone-nom genius is that be thinking  
 ‘Someone believes that everyone is a genius.’  
 (someone > everyone, everyone > \*someone)

Fourth, Condition B straightforwardly excludes (36)a, where the ECMed subject appears as a pronoun bound by the matrix subject, implying that they are in the same binding

<sup>10</sup> I will come back to the availability of the relevant inverse scope reading in Chapter 3.

domain. On the other hand, (36)b, though slightly degraded, is fine because each subject belongs to a different binding domain, in accordance with Condition B:

- (36) a. \*Taroo-ga<sub>i</sub> kare-o<sub>i</sub> [ *t<sub>i</sub>* tensai da to ] omotteiru.  
           Taro-nom    he-acc           genius is that be thinking
- b. ?Taroo-ga<sub>i</sub> [ kare-ga<sub>i</sub>    tensai da to ] omotteiru.  
           Taro-nom       he-nom       genius is that be thinking  
           ‘Taro believes that he is a genius.’

Fifth, (37)b, derived from (37)a through CP-scrambling, is ruled out as a violation of the Proper Binding Condition, which requires traces to be bound (cf. Saito 1992). This is because the trace left behind by overt object shift (i.e. *t<sub>i</sub>*) cannot be properly bound in the CP-scrambled position:<sup>11</sup>

- (37) a. Taroo-ga   Hanako-o<sub>i</sub> [ *t<sub>i</sub>* tensai da to ] omotteiru.  
           Taro-nom   Hanako-acc       genius is that be thinking
- b. \*[ *t<sub>i</sub>* tensai da to ]<sub>j</sub> Taroo-ga   Hanako-o<sub>i</sub> *t<sub>j</sub>* omotteiru.  
           genius is that Taro-nom   Hanako-acc   be thinking  
           ‘Taro believes that Hanako is a genius.’

Finally, the data regarding cleft constructions also lend support for the overt object shift analysis. More specifically, Japanese cleft constructions allow only clause mates to stand

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<sup>11</sup> As pointed out by Bošković (2006 UConn class lectures), the ungrammaticality of (37)b cannot be explained under the alternative analysis on which the ECMed subject is base-generated in the matrix clause and is coindexed with *pro* in the embedded clause (cf. Saito 1982, 1985, Takano 2003, etc.).

as multiple foci. The well-formedness of (38)b constitutes evidence that the ECMed subject belongs to the same clause as that of the matrix subject:

- (38)a. Dare-ga        dare-o<sub>i</sub> [ *t<sub>i</sub>* tensai da to ] omotteiru no.  
           who-nom     who-acc        genius is that be thinking Q  
           (lit.) ‘Who believes whom is a genius.’
- b. *t<sub>j</sub>* *t<sub>i</sub>* [ *t<sub>i</sub>* tensai da to ] omotteiru no-wa [ dare-ga<sub>j</sub> dare-o<sub>i</sub> ] na no?  
                   genius is that be thinkingNM-top who-nom who-acc is Q  
           (lit.) ‘Who believes whom is a genius.’

The data (31) through (38) show that the ECMed subject can undergo overt object shift. The question, however, is whether it is obligatory. The ill-formedness of (36)a as opposed to (36)b seems to suggest that object shift is obligatory in Japanese ECM. I will, however, argue below that the accusative subject is base-generated in the embedded clause SpecCP. It can either stay in this position or optionally scramble into the matrix clause. All the data discussed above is consistent with that analysis except possibly the Condition B data in (36). However, these data can also be accounted for if it is assumed that pronouns cannot have an antecedent within their minimal TP. The ill-formedness of (36)a then rather straightforwardly follows. Alternatively, under a phase-based approach to binding, an edge of a phase will belong to the next phase for the purpose of binding (cf. Despić 2011, Bošković in press, etc.). A pronoun in the embedded clause SpecCP will then again cause a Binding Condition violation in (36)a

Hiraiwa (2001, 2005) in fact claims that the movement that moves the ECMed subject into the matrix clause is an instance of scrambling, which means it is optional. Consider the following example in (39) from Hiraiwa (2005):

- (39) a. Taroo-wa orokanimo dare-o baka da to-mo omotteinai.  
           Taro-top stupidly who-acc stupid is that-either is not thinking
- b. \*Taroo-wa dare-o<sub>i</sub> orokanimo t<sub>i</sub> baka da to-mo omotteinai.  
           Taro-top who-acc stupidly stupid is that-either is not thinking  
           ‘Stupidly, Taro does not believe that anyone is stupid.’

Hiraiwa’s reasoning is as follows. Given a sentence that involves Neg and an NPI consisting of a *wh*-phrase and *-mo*, there is a constraint in Japanese that requires Neg to c-command *-mo*, which is in turn required to c-command the *wh*-phrase (cf. Kishimoto 2001).<sup>12</sup> This constraint is satisfied in (39)a, but not in (39)b, because in the latter, the *wh*-phrase is raised to the matrix domain and hence cannot be c-commanded by *-mo*. Thus, it seems plausible that the ECMed subject in (39)a is Case-valued without being raised to the matrix domain. Throughout the dissertation, I take the data in (39) seriously, and assume that object shift involved in Japanese ECM is covert (see Chapter 3 for arguments to this effect), and follow Hiraiwa (2001, 2005) in that the apparent overt object shift is an instance of scrambling (cf. Chapter 3).

Before introducing my own analysis of ECM in Japanese, it is important to draw attention to an observation that there are instances of the Japanese ECM construction

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<sup>12</sup> If the *wh*-phrase is in SpecCP, *-mo* is required to m-command, rather than c-command, the *wh*-phrase.

where the embedded subject does not necessarily start out from a  $\theta$ -position; specifically, these types of Japanese ECM show strong similarities with topicalization. It has been argued that a topic NP in Japanese is base-generated in the surface position and is associated and coindexed with *pro* in the  $\theta$ -position (cf. Hoji 1985). I discuss two such analyses below. First, Kuno (1973) claims that topicalization in Japanese does not involve movement, based on the observation that it is free of island effects. (40)a and (40)b show that the matrix and the embedded subject are coreferential across an adjunct island and a complex NP island, respectively:

(40) a. Sono hito-wa<sub>i</sub> [adjunct *pro*<sub>i</sub> sin-de mo ] daremo naka-nai.

that person-top die-inf even if anyone cry-not

‘No one cries even if that person dies.’

b. Sono hito-wa<sub>i</sub> [Complex NP *pro*<sub>i</sub> taberu mono ]-ga nai.

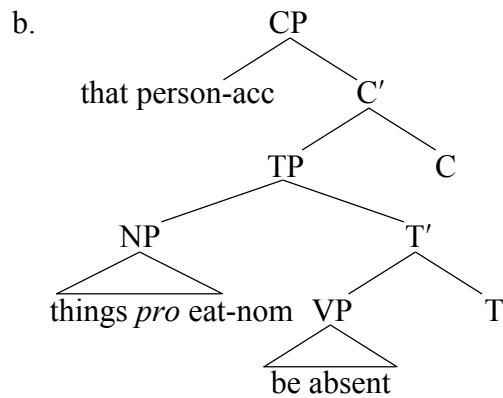
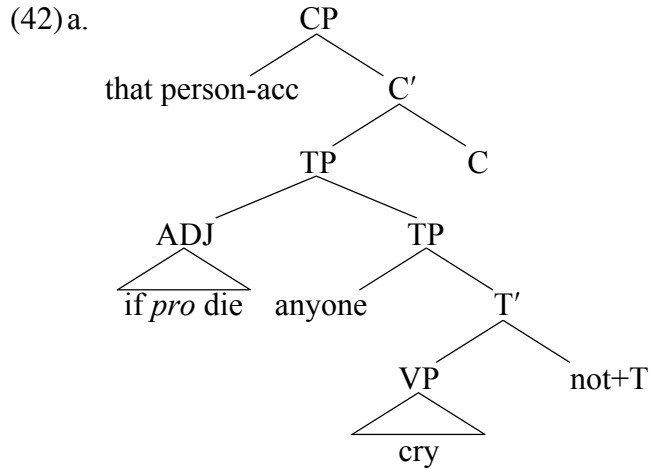
that person-top eat thing -nom absent

‘That person doesn’t have anything to eat.’

Let us consider the case where the examples in (40) are embedded as complement clauses and the embedded subject is ECMed by the matrix verb. Just like the topic NPs in (40), the ECMed subject in (41) is free from island effects, suggesting that it does not originate in the  $\theta$ -position:

- (41) a. Watasi-wa [<sub>CP</sub> sono hito-o<sub>i</sub> [<sub>adjunct</sub> *pro*<sub>i</sub> sin-de mo ] daremo naka-nai to ]  
 I-top that person-acc die-inf even if anyone cry-not that  
 omotteiru.  
 be thinking  
 ‘I believe that if that person died no one will cry.’
- b. Watasi-wa [<sub>CP</sub> sono hito-o<sub>i</sub> [<sub>Complex NP</sub> *pro*<sub>i</sub> taberu mono ]-ga nai to ]  
 I-top that person-acc eat thing -nom absent that  
 omotteiru.  
 be thinking  
 ‘I believe that that person (is a person who) doesn’t have anything to eat.’

The structures of the embedded CP in (41)a and (41)b are illustrated below as (42)a and (42)b, respectively:



The other observation that shows similarities between ECM and topicalization is the absence of reconstruction effects of the topic and the ECMed subject. Hoji (1985) claims that topicalization in Japanese does not involve movement based on the observation that a topic NP in Japanese does not reconstruct, as shown in (43)b:

- (43) a. [ *pro*<sub>i</sub>    kaita    ronbun    ]-o<sub>j</sub>    dare-ga<sub>i</sub>    *t*<sub>j</sub>    happyoosita    no?  
           wrote    article    -acc    who-nom        presented    Q
- b. \*[ *pro*<sub>i</sub>    kaita    ronbun    ]-wa,    dare-ga<sub>i</sub>    happyoosita    no?  
           wrote    article    -top    who-nom    presented        Q

‘Who presented the article that s/he wrote?’

In (43)a, the accusative NP is scrambled to the sentence initial position, and *pro* can be interpreted as a variable bound by *dare-ga* ‘who’ because such scrambling can involve reconstruction. However, the topic NP in (43)b does not allow this interpretation, because topicalization is not subject to reconstruction. It should be noted that the ECMed subject in (44) patterns in the same way as the topic NP in (43)b, in that (44) does not allow the relevant interpretation. This suggests that Japanese ECM does not allow reconstruction, which can be explained if the relevant NP does not originate in a  $\theta$ -position.

- (44) Watasi-wa [ [ *pro*\*<sub>i</sub> kaita ronbun ]-o daremo-ga<sub>i</sub> suki da to ]  
 I-top wrote article -acc everyone-nom like is that  
 omotteiru.  
 be thinking  
 (lit.) ‘I believe that the article s/he wrote, everyone likes.’

Note that the embedded predicate *suki* ‘like’ in (44) normally Case-marks the object as nominative rather than accusative, as in (45):

- (45) Minna-ga/wa hon-ga/\*o suki-da.  
 everyone-nom/top book-nom/\*acc like-is  
 ‘Everyone likes books.’

Since there is no source for accusative in the embedded clause in (44), it seems plausible that the accusative NP is Case-marked by the matrix *v*. In this sense, the accusative NP in (44) should be taken as an ECMed nominative object. This is inconsistent with the



general consensus that only the embedded subject is subject to ECM. However, I assume that object NPs can be ECMed as long as they have *u*Case (and the relevant conditions are met). Consider the following contrast:

- (46) a. Watashi-wa sono riyuu-o Taroo-ga waku to omotta.  
 I-top that reason Taro-nom understand that thought  
 ‘I believed that Taro would understand that reason.’
- b. \*Watashi-wa sono kuruma-o Taroo-ga noru to omotta.  
 I-top that car Taro-nom drive that thought  
 ‘I believed that Taro would drive that car.’

The embedded predicate *waku* ‘understand’ in (46)a is a structural Case-marker, which normally Case-marks the object as nominative, as shown in (47):

- (47) Taroo-ga/wa sono riyuu-ga/\*o waku.  
 Taro-nom/top that reason-nom/\*acc understand  
 ‘Taro understands that reason.’

However, the embedded object is actually Case-marked as accusative by the matrix verb, just as in (44). On the other hand, the embedded object in (46)b is inherently Case-marked by *noru* ‘drive’ and thus should appear in dative. This seems to be the reason that the object cannot be ECMed by the matrix verb.

Returning to (44), as pointed out by a reviewer, the lack of the bound variable interpretation of *pro* in (44) can also be captured by assuming that the ECMed subject is

base-generated in the  $\theta$ -position in the embedded clause, and then undergoes A-movement to the matrix domain, never to reconstruct (cf. Chomsky 1993, Lasnik 1999a, b, etc.). However, it has been shown that A-movement can in fact reconstruct (cf. Bobaljik and Wurmbrand 2005, 2012, Fox 1999, Wurmbrand 2010, etc.). Thus, I take (44) to be an example which supports the proposal that Japanese ECM does not necessarily involve movement from a  $\theta$ -position.

Given the data above, I conclude that these types of Japanese ECM should be analyzed on a par with topicalization, which base-generates the topic NP in SpecCP (cf. Rizzi 1997, Tonoike 1989, etc.). More specifically, I claim that Japanese ECM is a construction in which a clause that involves bare topicalization is embedded (cf. Mikami 1960). An instance of bare topicalization is given below as (48)a, which can be (roughly) paraphrased as (48)b:<sup>13</sup>

- (48)a. Sono hito, kinoo-no ziken-no hannin da.  
           that person yesterday-gen incident-gen culprit is
- b. Sono hito-wa kinoo-no ziken-no hannin da.  
       that person-top yesterday-gen incident-gen culprit is  
       (lit.) ‘That person, (s/he) is the culprit of yesterday’s incident.’

---

<sup>13</sup> Bare topicalization should also be differentiated from ordinary topicalization that involves *-wa* on the topic in that it preposes *wh*-phrases as well, as shown in (i):

(i) Dare<sub>i</sub> sonna koto-o itta no *pro*<sub>i</sub>/*t*<sub>i</sub>?  
       who such a thing-acc said Q  
       ‘Who said such a thing?’

One may take *dare* ‘who’ in (i) to be simply an instance of Case-drop. Note, however, that *dare* in this case is pronounced with the rising tone. This contrast with *dare* in (ii) which has undergone Case-drop and does not receive the rising tone:

(ii) Taroo-wa dare- $\emptyset$  tataita no?  
       Taro-top who- $\emptyset$  hit Q  
       ‘Who did Taro hit?’

This conclusion is supported by the fact that bare topics resist reconstruction, just like normal topics in (43)b and unlike scrambled phrase in (43)a, as shown in (49):

(49) \*<sub>i</sub> [*pro*<sub>i</sub> kaita ronbun ]<sub>j</sub>, dare-ga<sub>i</sub> happyoosita no?  
wrote article who-nom presented Q  
'Who presented the article that s/he wrote?'

I thus assume that the ECMed subject, just like a topic NP, is base-generated in the embedded SpecCP (cf. Bruening 2001), as illustrated in (50). Crucially, under Chomsky's (2000, 2001) definition of the PIC, repeated below as (51), the embedded SpecCP is a position which allows the matrix  $v$  to Case-mark the ECMed subject via Agree (see, however, Chapter 3 for further discussion on this issue):

(50) [<sub>VP</sub>  $\nu$  [<sub>VP</sub> believe [<sub>CP</sub> SUBJ-acc<sub>i</sub> C [<sub>TP</sub> T [<sub>VP</sub> ... *pro*<sub>i</sub> ... ] ] ] ] ]

*Agree Possible*

(51) In phase  $\alpha$  with head  $H$ , the domain of  $H$  is not accessible to operations outside  $\alpha$ ,  
only  $H$  and its edge are accessible to such operations.

A remaining issue is why bare topicalization is limited to matrix clauses, as shown in (52)a, as opposed to ordinary topicalization, shown in (52)b ((52)c shows that Case-drop is allowed for the accusative object):

- (52) a. Watasi-wa [ sono hito-o/\* $\emptyset$ , kinoo-no ziken-no hannin da to ]  
 I-top that person-acc/\* $\emptyset$  yesterday-gen incident-gen culprit is that  
 omotteiru.  
 be thinking
- b. Watasi-wa [ sono hito-wa kinoo-no ziken-no hannin da to ]  
 I-top that person-top yesterday-gen incident-gen culprit is that  
 omotteiru.  
 be thinking  
 (lit.) ‘I believe that that person, (s/he) is the culprit of yesterday’s incident.’
- c. Watasi-wa sono hito-o/ $\emptyset$  sitteiru.  
 I-top that person-acc/ $\emptyset$  know  
 ‘I know that person.’

I tentatively assume that the ill-formedness of (52)a is due to a violation of Bošković’s (1997b, 2002) Inverse Case Filter (since the matrix  $v$  fails to assign Case in the relevant context), which requires that traditional Case-assigners must assign their Case-feature. Note that even adverbs and PPs, which cannot be Case-marked as accusative in a non-ECM environment, must be Case-marked as accusative in the ECM environment, as shown by the b-examples in (53) through (56):

- (53) a. Taroo-wa asita-(\*o) Nagoya-e iku  
 Taro-top tomorrow-(\*acc) Nagoya-to go  
 ‘Taro will go to Nagoya tomorrow.’
- b. Taroo-wa asita-\*(o) matidoosii to omotta.  
 Taro-top tomorrow-\*(acc) can hardly wait that thought  
 ‘Taro thought that he can hardly wait for tomorrow.’
- (54) a. Taroo-wa raiget-(\*o) Nagoya-e iku  
 Taro-top next month-(\*acc) Nagoya-to go  
 ‘Taro will go to Nagoya next month.’
- b. Taroo-wa raiget-\*(o) syoonenba da to omotteiru.  
 Taro-top next month-\*(acc) critical point is that is thinking  
 ‘Taro thought that he can hardly wait for tomorrow.’
- (55) a. Taroo-wa Nagoya-kara-(\*o) Matumoto-e kaeru.  
 Taro-top Nagoya-from-(\*acc) Matsumoto-to go back  
 ‘Taro will go back to Matsumoto from Nagoya.’
- b. Taroo-wa Nagoya-kara-\*(o) tooi to omotta.  
 Taro-top Nagoya-from-\*(acc) far that thought  
 ‘Taro thought that (the distance) from Nagoya is long.’

(56) a. Taroo-wa Nagoya-made-(\*o) iku.

Taro-top Nagoya-to-(\*acc) go

‘Taro will go to Nagoya.’

b. Taroo-wa Nagoya-made-\*(o) tooi to omotta.

Taro-top Nagoya-to-\*(acc) far that thought

‘Taro thought that (the distance) to Nagoya is long.’

However, the Inverse Case Filter should be somewhat weakened, in order to accommodate cases where  $\nu$  is present but does not assign its Case-feature. For example, in the non-ECM case like (57)a, the matrix  $\nu$  does not assign Case to the embedded subject, but the example is still well-formed:

(57) a. Watasi-wa [ sono hito-ga kinoo-no ziken-no hannin da to ]

I-top that person-nom yesterday-gen incident-gen culprit is that  
omotteiru.

be thinking

(lit.) ‘I believe that that person is the culprit of yesterday’s incident.’

b. Watasi-wa [ sono hito-o kinoo-no ziken-no hannin da to ]

I-top that person-acc yesterday-gen incident-gen culprit is that  
omotteiru.

be thinking

(lit.) ‘I believe that that person, (s/he) is the culprit of yesterday’s incident.’

If Bošković's Inverse Case Filter is applied as such, the fact that both (57)a and (57)b are well-formed cannot be accounted for. I thus revise the Inverse Case Filter as (58) below, so that it comes into effect in cases like (57)b alone:

(58) Traditional Case-assigners must assign their Case-feature *whenever possible in accordance with the PIC*.

In the non-ECM case like (57)a, the embedded subject *Hanako-ga* is base-generated in the embedded  $vP/VP$ , where it can be Case-marked by the embedded T, but not by the matrix  $v$ . In fact, the subject is never in a position in which it can be Case-marked by the matrix  $v$ . Thus, (58) is not violated even if the matrix  $v$  does not assign its accusative Case. In the ECM case like (57)b and the topicalization case like (52)b, on the other hand, the embedded subject *Hanako-o* and *Hanako-wa*, respectively, are base-generated in the embedded SpecCP. These examples are well-formed since they are Case-marked by the matrix  $v$ , in accordance with (58).<sup>14</sup> If (58) is violated, the ill-formed example (52)a results. (59) illustrates these derivations:

- (59)a. [<sub>VP</sub>  $v$  [<sub>VP</sub> believe [<sub>CP</sub> C [<sub>TP</sub> T [<sub>VP/VP</sub> ... SUBJ-nom ... ] ] ] ] ]  
↑  
*Case-assignment impossible and disallowed*
- b. [<sub>VP</sub>  $v$  [<sub>VP</sub> believe [<sub>CP</sub> SUBJ-acc<sub>i</sub>/NP-top<sub>i</sub> C [<sub>TP</sub> T [<sub>VP/VP</sub> ... *pro*<sub>i</sub> ... ] ] ] ] ]  
↑  
*Case-assignment possible and obligatory*

<sup>14</sup> I assume that the matrix  $v$  assigns its accusative Case to the topic NP in (52)b as well, but it is simply absorbed by the topic marker *-wa*. This assumption is consistent with the fact that nominative and accusative markers are always absorbed by *-wa* in Japanese.

One may wonder, however, what happens if the matrix verb loses its Case-feature, say, through passivization or nominalization, but still selects the same embedded clause. It is predicted that embedded topicalization should be possible in these cases. However, as shown in (60) and (61), only ordinary topicalization is allowed in these contexts:

- (60) a. \*[ Sono hito, kinoo-no ziken-no hannin da to ] omowareteiru.  
           that person yesterday-gen incident-gen culprit is that be thought  
       b. [ Sono hito-wa kinoo-no ziken-no hannin da to ] omowareteiru.  
           that person-top yesterday-gen incident-gen culprit is that be thought  
       (lit.) ‘It is believed that that person, is the culprit of yesterday’s incident.’

- (61) a. \*[ sono hito, kinoo-no ziken-no hannin da toiu ] omoi  
           that person yesterday-gen incident-gen culprit is that thought  
       b. [ sono hito-wa kinoo-no ziken-no hannin da toiu ] omoi  
           that person-top yesterday-gen incident-gen culprit is that thought  
       (lit.) ‘the belief that that person, is the culprit of yesterday’s incident’

I suggest that the ill-formedness of (60)a and (61)b can be treated on par with English examples in (62) below. In other words, bare topicalization in Japanese and topicalization in English may be constrained by similar syntactic/semantic restrictions that prevent them from applying in sentential subjects and complex NPs (cf. Hooper and Thompson 1973).<sup>15</sup> I leave to future research what kind of restrictions they are.

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<sup>15</sup> The judgment for (62) may be subject to speaker and dialectal variation (cf. Authier 1992, Lasnik and Saito 1992, Maki, Ochi, and Kaiser 1999, etc.).



- (62) a. (?\*)That Mary, John loves is believed by everyone.  
b. (?\*)the belief that Mary, John loves

There is also an alternative analysis where bare topics bear default Case which has no morphological realization. It is well-known that default Case is restricted to certain contexts; it is not freely available in any position. If that were the case the Case Filter would be completely voided. Default Case is in fact often assumed to be restricted to positions in the left periphery. In light of this, I suggest that bare topics bear default Case with no morphological realization, and that default Case is possible only in the left periphery of the matrix clause in Japanese.

## 2.5 Conclusion

In this chapter, I discussed the issue of improper movement, focusing on A-movement out of CP that is supposed to be involved in the ECM construction and the complement clause of *mean* in English. I showed that the data indicate that ECMed subjects in English undergo obligatory object shift out of CPs, as opposed to direct objects which undergo object shift optionally. I then pointed out that *mean* may occur with what appear to be both nominal and clausal complement only if the nominal complement is a *wh*-phrase, and provided evidence that suggests that such *wh*-phrases also undergo A-movement to the matrix clause out of CPs. Under the assumption that A-A'-A movement is indeed impossible, I claimed that the movement of the ECMed subject and the *wh*-phrase in the complement clause of *mean* are sanctioned because feature inheritance applies only if the  $\theta$ -features of the verb have been checked overtly (by the element that the verb Case-marks), also assuming that SpecvP in the ECM/*mean*

case counts as an A- and an A'-position at the same time because *v* retains both Agree- and Edge-features. I claimed that A-movement out of CP is regarded as legitimate in such cases. I also claimed that the Edge-feature is checked by merger with the element that the relevant head agrees with, which means that the Edge-feature of V can be checked by the object in situ in simple transitives. I further discussed the possibility of Case-marking nominal elements in A'-positions, taking Japanese ECM to be an instance of embedded bare topicalization, where the embedded topic obligatorily appears as accusative. Moreover, on the basis of the data showing that ECMed subjects in Japanese do not undergo overt object shift, I concluded that the accusative Case-marking of the embedded subject in the ECM context is due to the Inverse Case Filter, which is loosened in such a way that traditional Case-assigners must assign their Case-feature whenever possible in accordance with the PIC.

## Chapter 3

### Conditions on Scope Shifting Operations

#### 3.1 Introduction

Takahashi (2010, 2011) proposes an account of the scope properties of the Japanese potential construction (and a number of other facts) based on a particular contextual approach to phases where Case-valuation determines the phasehood of functional heads. In this chapter, I propose an alternative account of the facts that maintains Chomsky's (2000 *et seq.*) characterization of C and *v* as phase heads by nature, and which is based on the theory of phrase structure building and head excorporation proposed by Shimada (2007) and Tonoike (2009), on the basis of which Saito (2012) accounts for the scope facts in the Japanese potential construction where a nominative object takes higher scope than the potential suffix, but an accusative object does not, without recourse to the assumption that Case-valuation determines phasehood. On the basis of data that show that the nominative object in the Japanese potential construction sometimes takes lower scope than the potential suffix, I claim that head excorporation can yield new scope possibilities but that it is constrained by Scope-Order Correspondence, which is a reinterpretation of Scope Transparency put forth by Bobaljik and Wurmbrand (2012) and Wurmbrand (2008, 2010). I then apply the proposed analysis to the discussion of Japanese Exceptional Case-marking. More specifically, I consider data that show that the embedded accusative subject must stay in the embedded clause and does not undergo object shift (Hiraiwa 2001, 2005), and the data that show that the the embedded accusative subject allows inverse scope with respect to the matrix subject, which apparently supports the overt object shift analysis of the Japanese Exceptional

Case-marking (Tanaka 2002). I conclude that the the embedded accusative subject is in the lower clause overtly, but undergoes covert object shift, in accordance with SOC and the mechanisms proposed by Bošković (2007, 2008, 2011) and Saito (2012).

### **3.2 The Contextual Approach to Phasehood**

In this section, I discuss the contextual approach to phasehood, providing some arguments against Takahashi's (2010, 2011) claim that Case-valuation determines the phasehood of functional heads. Before discussing Takahashi's proposals, I would like to give some general discussion of the contextual approach to phasehood. Under the traditional minimalist assumptions dating back to Chomsky (2000), functional heads such as C and *v* are phase heads by nature (i.e. their phasehood remains constant regardless of the syntactic context they are in). On the other hand, some researchers (cf. Bobaljik and Wurmbrand 2005, Bošković 2012a, b, 2013, 2014, den Dikken 2006a, b, 2007, Despić 2011, 2013, Gallego and Uriagereka 2007, Kang 2014, Takahashi 2010, 2011 etc.) have recently taken a contextual approach to phasehood, under which XPs can acquire phasehood in the course of the derivation, depending on the syntactic contexts they are in. I would like to introduce here an argument for the contextual approach to phasehood based on the DP/NP parameter.

It is standardly assumed that DP, but not NP is a phase in English. Assuming that the DP projection is present in English but missing in Serbo-Croatian (SC), Bošković (2013, 2014) argues that due to the syntactic context in which it occurs NP is a phase in SC. Consider the following contrast between English, given in (1), and SC, given in (2) noted in Despić (2011, 2013):

- (1) a. Kusturica's<sub>i</sub> latest movie really disappointed him<sub>i</sub>.  
 b. His<sub>i</sub> latest movie really disappointed Kusturica<sub>i</sub>.
- (2) a. \*Kusturicin<sub>i</sub> najnoviji film je ga<sub>i</sub> zaista razočarao.  
 Kusturica's latest movie is him really disappointed  
 'Kusturica's latest movie really disappointed him.'  
 b. \*Njegov<sub>i</sub> najnoviji film je zaista razočarao Kusturicu<sub>i</sub>.  
 his latest movie is really disappointed Kusturica  
 'His latest movie really disappointed Kusturica.'

Following Kayne (1994), Despić assumes that possessors are located in SpecDP in English. Thus, if the possessor is an R-expression, it does not cause a Condition B violation if it is coindexed with the pronominal object in (1)a. If the possessor is a pronoun it does not induce a Condition C violation if it is coindexed with the R-expression object in (1)b. Both of these observations naturally follow if it is assumed that the DP projection delimits the binding domain in English. In SC, on the other hand, if the possessor is an R-expression, it causes a Condition B violation in (2)a and if the possessor is a pronoun, it causes a Condition C violation in (2)b. Both of these observations naturally follow if it is concluded that the DP projection, which is shown to delimit the binding domain, is missing in SC, and that, as argued in Bošković (2013, 2014) and Despić (2011, 2013), SC possessors are NP-adjoined.

Bearing the conclusion in mind, let us look at Left Branch Extraction (LBE) and Adjunct Extraction (AE) in SC. Bošković (2012a, b, 2013, 2014) makes a generalization that LBE and NP-adjunct extraction may be allowed only in article-less languages (note

that these are one-way correlations), whose nominals project up to NPs rather than DPs. The well-formedness of (3)a and (4)a, which contrasts with English (3)c and (4)c, illustrates this point:

- (3) a. Čiju<sub>i</sub> je on vidio [ t<sub>i</sub> majku ]?  
           whose is he seen [ mother ]  
           ‘Whose mother did he see?’
- b. \*Čije<sub>i</sub> je on upoznao [ prijatelja [ t<sub>i</sub> majke ] ]?  
           whose is he met [ friend [ mother ] ]  
           ‘Whose mother did he meet friends of?’
- c. \*Whose did he meet friends of mother?
- d. Pametnog<sub>i</sub> je on vidio [ t<sub>i</sub> studenta ].  
           smart is he seen [ student ]  
           ‘He saw a smart student.’
- e. \*Pametnog<sub>i</sub> je on vidio [ prijatelja [ t<sub>i</sub> studenta ] ].  
           smart is he seen [ friend [ student ] ]  
           ‘He saw a friend of a smart student.’
- f. \*Smart he saw students.

- (4) a. Iz kojeg grada<sub>i</sub> je Petar sreo [ djevojke  $t_i$  ]?  
 from which city is Peter met [ girls ]  
 ‘From which city did Peter meet girls?’
- b. \*Iz kojeg grada<sub>i</sub> je Petar sreo [ prijatelje [ djevojke  $t_i$  ] ]?  
 from which city is Peter met [ friends [ girl ] ]  
 ‘From which city did Peter meet friends of a girl?’
- c. \*From which city did Peter meet girls?

Let us assume, following Bošković, that possessors, adjectives, and NP-adjuncts are base-generated in the NP-adjoined position. In English (3)f and (4)c, movement of these elements to SpecDP violates anti-locality, which states that movement cannot be too short and must cross at least one full phrasal boundary (note that the relevant movement crosses only a segment of NP).<sup>1</sup> On the other hand, if the extracted elements try to move in one fell swoop across the DP phase, the movement violates the PIC. This problem does not arise in SC (3)a, (3)d, and (4)a, since SC does not have a DP projection. However, as shown in (3)b, (3)e, and (4)b, SC does not allow deep adjunct extraction and deep LBE (i.e. LBE and AE out of a complement of a noun). On the basis of these data, Bošković argues that the highest projection in the traditional Noun Phrase counts as a phase, which is NP in SC. (Note that in English, DP, not NP, is then a phase.) Then, the higher NP is a phase in (3)b, (3)e, and (4)b. If the extracted elements try to move in one fell swoop across the higher NP, the movement violates the PIC, and if they try to move via SpecNP, the movement violates anti-locality. Under Bošković’s analysis, whether or not NP is a

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<sup>1</sup> The problem with (3)c is that *whose* is not a constituent, *who* being in SpecDP and *’s* in D.

phase depends on the syntactic context in which it occurs – it is not a phase if it is dominated by DP, otherwise it is.

Pursuing a contextual approach to phasehood, Takahashi (2010, 2011) proposes that only heads that participate in Case-valuation constitute phases (cf. Bobaljik and Wurmbrand 2005, Kang 2012, etc.). Let us overview Takahashi's (2011) analysis of English ECM on the basis of the generalization, and examine how it implements movement skipping the embedded CP. First of all, on the basis of McCloskey's (2000) data in (5) given below (repeated from Chapter 2) Takahashi assumes that ECM infinitives in English are CPs:

- (5) a. \*Who did you arrange for your mother all to meet at the party?  
b. Who did you expect your mother all to meet at the party?

Crucially, Takahashi attributes the extractability of the embedded subject out of the CP in (5)b to the lack of Case-valuation; namely, in contrast to (5)a, where the complementizer *for* Case-values the embedded subject, the CP in (5)b does not count as a phase because C (and T that it selects; henceforth C-T) never participates in Case-valuation, hence the CP in question is not a phase. As a result, object shift skipping the embedded CP is tolerated. Takahashi extends his idea to the asymmetry in (6):

- (6) a. Someone believes that John hates everyone.      (some > every, \*every > some)  
b. Someone believes John to hate everyone.      (some > every, every > some)



As Bošković (1998) observes, the object quantifier *everyone* in the embedded *that*-clause cannot take scope over the subject quantifier *someone* in the matrix clause, as in (6)a, but such a cross-clausal inverse scope reading is available with ECM infinitives, as in (6)b (though see Wurmbrand 2013). Takahashi claims that QR is phase-bounded (cf. Miyagawa 2011), and hence cannot apply skipping the embedded CP in (6)a, because C-T participates in Case-valuation and thus constitutes a phase. Adjoining *everyone* to the embedded SpecCP on the way up is not a solution, since this would not create a new scope interpretation, in violation of Scope Economy (cf. Fox 2000), hence the step is disallowed. On the other hand, QR skipping the embedded CP is possible in (6)b, because C-T never participates in Case-valuation and thus the CP does not constitute a phase. Given Takahashi's claim that only heads that participate in Case-valuation constitute phases, overt object shift of the ECMed subject in English naturally follows: since C-T does not participate in Case-valuation, object shift skipping CP is tolerated, just as QR is allowed to apply skipping the embedded CP in (6)b.

One important contribution of Takahashi's analysis is that it provides a principled account for the long-standing puzzle for the scope asymmetry between nominative and accusative objects in the Japanese potential constructions. Let us briefly look at Takahashi's analysis of the relevant constructions. First, building on Nomura's (2003, 2005a, b) data, Takahashi assumes that nominative objects take either wide or narrow scope over the potential suffix, but accusative objects can only take narrow scope, as shown in (7). Crucially, Takahashi claims that this is not because the nominative object undergoes Case-related A-movement to SpecTP, taking scope over the potential suffix there (cf. Koizumi 1994, 1995, 1998, Nomura 2003, 2005a, 2005b, Tada 1992, 1993, Ura 1996, 1999, 2000, etc.), but because *dake* 'only' triggers QR of the object in (7)a (cf.

Bobaljik and Wurmbrand 2005, 2012, Wurmbrand 2008). The unavailability of the wide scope of the accusative object over the potential suffix in (7)b follows because the object is “stuck” in the  $\nu$ P, which is a phase because  $\nu$  participates in Case-valuation, hence it prevents the object from undergoing QR.<sup>2</sup>

(7) a. Zyon-ga migime-dake-ga tumur-eru.

John-nom right-eye-only-nom close-can

‘John can close only his right eye.’ (only > can, can > only)

b. Zyon-ga migime-dake-o tumur-eru.

John-nom right eye-only-acc close-can

‘John can close only his right eye.’ (can > only, \*only > can)

Interesting as it is, Takahashi’s analysis faces some empirical problems. Consider first his account of English ECM. Takahashi claims that ECM infinitives are CPs that allow QR to skip them (cf. (6)b), but he also provides data showing that ECM infinitives allow *wh*-movement to proceed via the embedded SpecCP (cf. (5)b). If movement is solely motivated by the Edge-features on phase heads (see Chomsky 2008, Kang 2014), it is not clear how *who* in (5)b can stop by the embedded SpecCP, if Takahashi’s claim that CPs in ECM infinitives are not phases is correct?

Another issue is that it is not clear how Takahashi’s generalization captures a Japanese potential construction identical to (7) except that the object is not the kind that

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<sup>2</sup> Takahashi assumes that QR for type-resolution cannot feed that for Scope Economy. Hence, once the object is QRed to the  $\nu$ P-adjoined position for type-resolution (since QR is phase-bounded), further application of QR is impossible. This is how the accusative object in (7)b is stuck in the  $\nu$ P.

(8) a. Zyon-ga      katame-ga          tumur-eru.  
John-nom   one-eye-nom   close-can  
‘John can close one eye.’  
(one > can, can > one)

b. Zyon-ga      katame-o          tumur-eru.  
John-nom   one-eye-acc   close-can  
‘John can close one eye.’  
(can > one, \*one > can)

<sup>3</sup> Also relevant are the following data discussed by Saito (2010a). In (i), an indefinite nominative subject is involved, and in (ii), a quantified (i.e. *-dake*) nominative subject is involved. The indefinite subject in (i) takes lower scope than the negation, in contrast to the quantified subject in (ii):

- (i) Kono ike-ni-wa sakana-ga inai.  
this pond-dat-top fish-nom be not  
'There is no fish in this pond.' (not > some)
- (ii) Kono ike-ni-wa koi-dake-ga inai.  
this pond-dat-top carp-only-nom be not  
'It is only carp that this pond does not have' (only > not)

55

- (9) a. Zyōn-ga sakana-ga kōsyōo-dake-de taber-areru.  
 John-nom fish-nom pepper-only-with eat-can  
 ‘Taro can eat fish with only pepper.’ (only > can, ?can > only)
- b. Zyōn-ga sakana-o kōsyōo-dake-de taber-areru.  
 John-nom fish-acc pepper-only-with eat-can  
 ‘Taro can eat fish with only pepper.’ (can > only, ?\*only > can)

If *katame* ‘one eye’ in (8) undergoes QR just like the NP accompanied by *-dake*, it should be expected to take scope either over or under the potential suffix. However, (10) demonstrates that *katame* does not undergo QR, regardless of whether the object appears in nominative or accusative:

- (10) a. Zyōn-ga kono zi-ga katame-de yom-eru.  
 John-nom this character-nom one eye-with read-can  
 ‘John can read this character with one eye.’ (can > one, \*one > can)
- b. Zyōn-ga kono zi-o katame-de yom-eru.  
 John-nom this character-acc one eye-with read-can  
 ‘John can read this character with one eye.’ (can > one, \*one > can)

The lack of the scope ambiguity in (8) raises an issue for Takahashi’s analysis, where the scope of an NP is derived through QR constrained by phasehood, which in turn is determined by Case-valuation, rather than being directly determined at its Case-licensing position. I will then pursue an analysis where the Case-licensing position of an NP directly reflects its scope (cf. Koizumi 1994, 1995, 1998, Nomura 2003, 2005a, 2005b,

Tada 1992, 1993, Ura 1996, 1999, 2000, etc.), assuming that Japanese does not have QR, a covert operation that exclusively applies for scope reasons. More specifically, in Section 3.3.3, I will analyze the relevant data of the Japanese potential construction, extending to it Saito's (2012) excorporation theory (cf. Shimada 2007, Tonoike 2009, etc.).

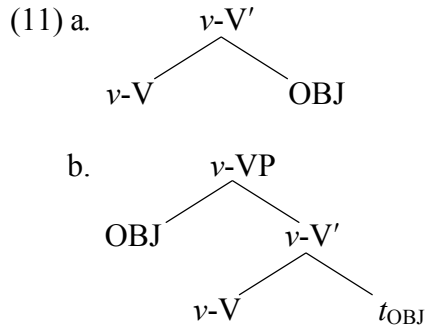
### **3.3 A Novel Way of Phrase Structure Building and Head Excorporation**

In Section 3.2, I demonstrated that a nominative object in Japanese can take higher scope than the potential suffix even when it is not accompanied by *-dake* 'only,' which has been assumed to induce QR (cf. Bobaljik and Wurmbrand 2005, 2012, Wurmbrand 2008, Takahashi 2010, 2011). I thus concluded that Japanese does not have QR, a covert operation that exclusively applies for scope reasons. I will in fact argue that Case-valuation alone is crucially relevant for determining the scope of NPs (cf. Koizumi 1994, 1995, 1998, Nomura 2003, 2005a, 2005b, Tada 1992, 1993, Ura 1996, 1999, 2000, etc.). A crucial fact is that nominative objects can take lower scope than the potential suffix as well, if an appropriate context is provided (cf. Nomura 2003, 2005a, 2005b, Takahashi 2010, 2011). Also crucial is the fact that the higher scope reading for nominative objects over the potential suffix is much more salient. I will take these facts to suggest that the more salient reading is obtained on the basis of the base-generated position of the nominative object. I will then argue for a way of capturing these facts without recourse to movement of nominative objects. More specifically, in order to guarantee that the higher scope reading of the nominative object is obtained on the basis of the base-generated position, and its lower scope counterpart is obtained through a movement operation, but not of the nominative object, I will argue for Saito's

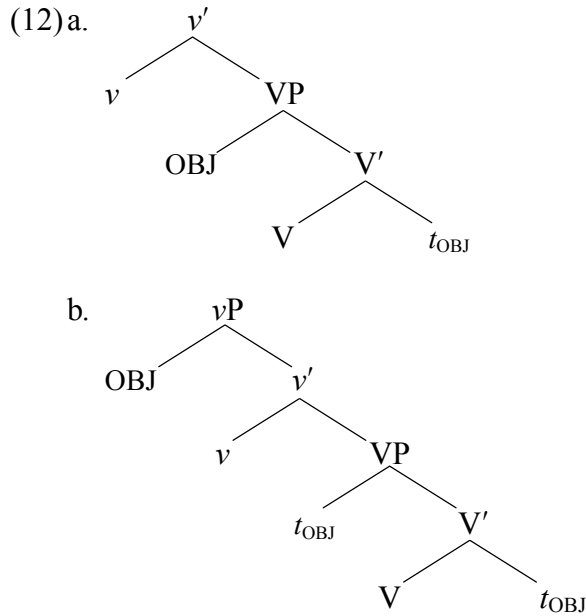
excorporation analysis of Japanese head-to-head relations and propose that head excorporation is constrained by Scope-Order Correspondence.

### 3.3.1 Shimada (2007) and Tonoike (2009)

Before introducing Saito's analysis, I would like to give a brief outline of the phrase structure building mechanism proposed by Shimada (2007) and Tonoike (2009), which Saito follows for the most part. For the sake of illustration, let us consider how the  $\nu$ P phase is built up under Tonoike's mechanism. He assumes that  $\nu$  and V form a complex head  $\nu$ -V, which is merged with the direct object, as shown in (11)a. The direct object is moved to the Spec of the complex head, as shown in (11)b:



Crucially, Tonoike assumes that in the structure (11)b,  $\nu$  excorporates from the  $\nu$ -V complex and is then merged with VP, projecting as  $\nu'$ , as shown in (12)a. The direct object is further moved to the Spec of the excorporated  $\nu$ , as shown in (12)b:



One of the merits of the Tonoike/Shimada-type approach to phrase-structure building is that it does not suffer from the long-standing problem with head movement (cf. Citko 2008, Donati 2006, Matushansky 2006, etc. for details); namely, under the standard analysis of head movement, it violates the Extension Condition. As illustrated in (12)a and (12)b, this problem does not arise on the excorporation theory;  $v$  that undergoes excorporation projects as  $v'$  and  $vP$ , also successfully c-commanding its trace.<sup>4</sup>

Bearing Tonoike/Shimada-type approach to phrase structure building in mind, let us reconsider the contrast between direct objects and ECMed subjects in English, which was extensively discussed in Chapter 2. Recall that I suggested two derivations for Case-valuing the direct object, depending on whether the Agree-feature inheritance applies or not. The relevant data are (13) and (14), repeated from Chapter 2. The data in

<sup>4</sup> I assume, essentially following the suggestion by Mamoru Saito (personal communication), that  $v$ , which has excorporated from  $V$ , must further be merged with  $VP$  for interpretive reasons. More specifically, I assume that information on argument structure (e.g. the agent of a transitive verb appears in  $\text{Spec}vP$ ) must be syntactically represented, and this is satisfied by excorporation of  $v$  and the subsequent merger of the agent NP in its  $\text{Spec}$ .

(13) show that the direct object *what* only optionally undergoes overt object shift, and hence either *what* or *when* is allowed to undergo *wh*-movement, in accordance with the Superiority Condition. (14)b demonstrates the case where overt object shift is suppressed due to the ban on extraction out of a moved constituent (cf. Takahashi 1994), in contrast to (14)a:

(13)a. What did you buy when?

b. When did you buy what?

(14)a. Who<sub>i</sub> did Bill select [ a painting of *t<sub>i</sub>* ]?

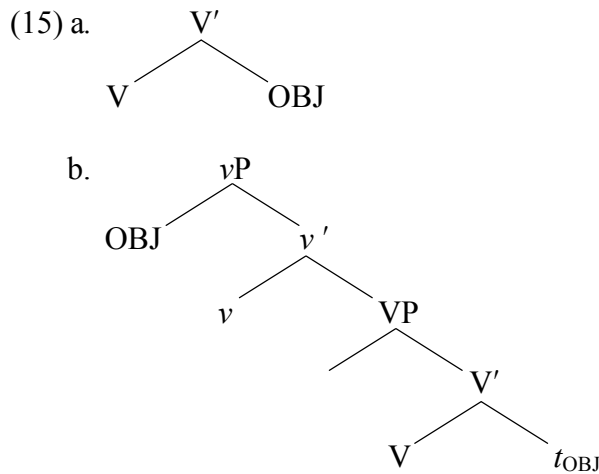
b. \*Who<sub>i</sub> was [ a painting of *t<sub>i</sub>* ]<sub>j</sub> selected *t<sub>j</sub>*?

Note that the Agree-feature inheritance can be dispensed with under the Tonoike/Shimada-type approach, since  $\nu$ , which bears Agree-features, comes into the structure together with V, which is supposed to receive them. Accordingly, the two options for the syntactic derivation of direct objects suggested in Chapter 2 should be reconsidered. For the non-object shift option, I assume that the direct object is merged with the  $\nu$ -V complex, as illustrated in (11)a. In tandem with the discussion in Chapter 2, I would like to propose that the direct object under this option never moves to the Spec of the complex head, in contrast to what Tonoike assumes (cf. (11)b). This is because in the base-generated structure given in (11)a, the direct object and V, the  $\theta$ -marker, c-command each other, and the direct object and  $\nu$ , the Case-assigner, also c-command each other (cf. Bošković 2007, 2008, 2011). Thus, under a system without Agree-feature



inheritance, both Agree- and Edge-features reside in  $v$ , but they are checked in situ by the direct object NP (see Chapter 2).

For the object shift option, I assume that the direct object is merged with V, rather than the  $v$ -V complex, as shown in (15)a. Under this option, direct object c-commands and is  $\theta$ -marked by V, but does not c-command  $v$ , the Case-assigner. Thus, in order to have its Case valued, it must move to Spec $v$ P, as illustrated in (15)b (cf. Bošković 2007, 2011 and the discussion below):



Given that Agree-feature inheritance does not apply under object shift option either, both Agree- and Edge-features reside in  $v$ . In this case, however, these features are checked only as a result of the movement of the direct object NP to Spec $v$ P.

Recall the discussion in Chapter 2 that in English, ECM subjects pattern with direct objects that undergo overt object shift. More precisely, in contrast to direct objects, overt object shift is obligatory with ECM (cf. Bošković 1997b, 2007). This is illustrated by the contrast between (13) and (16); the ill-formedness of (16)b indicates that *whom* must be higher than *when* prior to *wh*-movement:

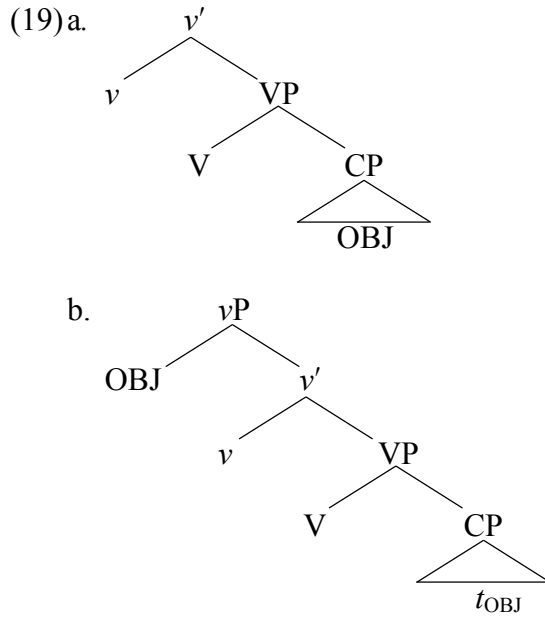
- (16)a. Whom did you prove to be guilty when?  
 b. \*When did John prove whom to be guilty?

Also, I assumed in Chapter 2 that (17) is derived in parallel with ECM in English, as illustrated in (18):

(17) What do you mean that I'm a liar?

- (18)a. you [<sub>VP</sub> *v* mean [<sub>CP</sub> what [<sub>C'</sub> that I'm a liar ] ] ]  
 b. What<sub>i</sub> do you [<sub>VP</sub> *t<sub>i</sub>* *v* mean [<sub>CP<sub>i</sub></sub> *t<sub>i</sub>* [<sub>C'</sub> that I'm a liar ] ] ]?

The ECMed subject in (16) and the *wh*-object of the complement clause of *mean* in (18) are base-generated inside the embedded clause. They are both illustrated by the structure given in (19)a. From this structure, the ECM subject and the *wh*-object undergo overt object shift to the matrix Spec<sub>VP</sub>, as shown in (19)b:



Given that ECMed subjects and the *wh*-object in the complement clause of *mean* pattern with direct objects that undergo overt object shift, and that the Agree-feature inheritance does not apply, both Agree- and Edge-features should reside in *v*. Hence, these features are checked only as a result of overt object shift to (the matrix) SpecvP. Crucially, as pointed out in Chapter 2, the relevant movement does not result in improper movement, since SpecvP counts as an A- and an A'-position at the same time, regardless of whether the ECMed subject and the *wh*-object start out in A- or A'-positions.

A fundamental question that arises here is why overt object shift is necessary when *v* and *V* enter into the structure independently, as illustrated in (15). I suspect that Richards's (2007) claim provides a straightforward answer. Richards claims that the Agree-feature inheritance is necessary for guaranteeing well-formed derivations, but its necessity reduces to the PIC and the Value-Transfer Simultaneity, the requirement that valued *uF* and valued *iF* must be Spelled Out at the same time. By definition, unless Transfer and feature-valuation take place simultaneously, Transfer cannot make a

distinction between valued  $uF$  and  $iF$ , allowing  $uF$  to be sent to LF, and the derivation should necessarily crash. However, if object shift applies, as illustrated in (19)b, the ECMed subject and the *wh*-object on the one hand, and  $v$  on the other, should belong to the same Spell-Out domain, and thus be allowed to be Spelled Out simultaneously by some higher head above  $vP$ .

Here, I assume that Bošković's (2007, 2008, 2011) motivation for overt object shift (more generally, any kind of movement) shows its validity; namely, an NP with  $uF$  must undergo movement because it should not be Spelled Out until it has its  $uF$  checked by the head that checks/values the  $uF$ .<sup>5</sup> Bošković claims that this can only be done by moving the NP to the position where it c-commands the head. To restate this in Richards's terms, an NP with (unvalued)  $uF$  must keep on moving until it gets into the same Spell-Out domain as that of the head that checks/values the  $uF$ , where the NP has its  $uF$  checked. In the case at hand, the ECMed subject and the *wh*-object have no choice but to undergo overt object shift in order to satisfy the constraint that valued  $uFs$  on NPs and functional heads must be Spelled Out at the same time. Thus, it is possible to account for the obligatoriness of overt object shift for the English ECM without independently stipulating the EPP/Edge-features, though that would involve some modifications regarding assumptions about the A/A' distinction adopted in Chapter 2.

### 3.3.2 Saito (2012)

Now, let us turn to Saito's (2012) analysis of nominative objects in Japanese. First of all, it is crucial to point out that Saito adopts the view that the phasehood of functional categories is determined at the point when they enter the derivation. More specifically,

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<sup>5</sup> Since the exact categorial status of the traditional NP does not matter here, I will simply use NP.

Saito basically assumes that Case-valuation determines phasehood, just like Takahashi (2010, 2011), but his analysis is differentiated from Takahashi's in that whether or not a functional head is a phase head or not is determined at the point of merger. Another crucial aspect of Saito's approach is that merger plays an important role in Case-valuation. Specifically, under Saito's approach, Case is required for Agree and is valued through Agree in English, whereas Case is required for merger and is valued through merger in Japanese. The Case-valuation patterns resulting from merger between NPs and functional heads are summarized in (20):<sup>6</sup>

- (20)a. Case is valued as nominative by merger with T-C.
- b. Case is valued as accusative by merger with (transitive) V-*v*.
- c. Case is valued as genitive by merger with N-D.

First, let us consider how the accusative object in the potential construction in (21) is merged and Case-valued.

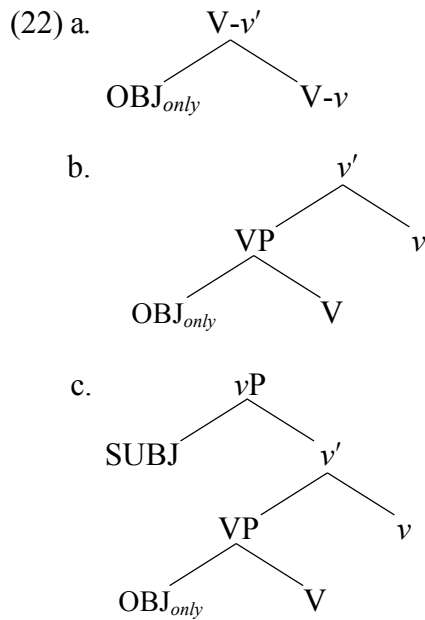
- (21) Zyon-ga          migime-dake-o          tumur-eru.  
       John-nom      right eye-only-acc      close-can  
       'John can close only his right eye.'                      (can < only, \*only < can)

Since the Case under consideration is accusative in this case, what is relevant is (20)b. The derivation of the *v*P phase is illustrated in (22). In (22)a, the object with *-dake* 'only'

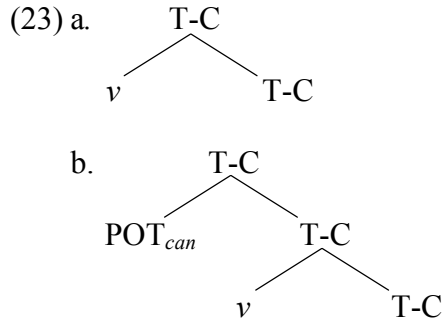
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<sup>6</sup> I will, however, argue in Chapter 4 that Case can be valued as accusative by merger with *v* in the ECM construction.

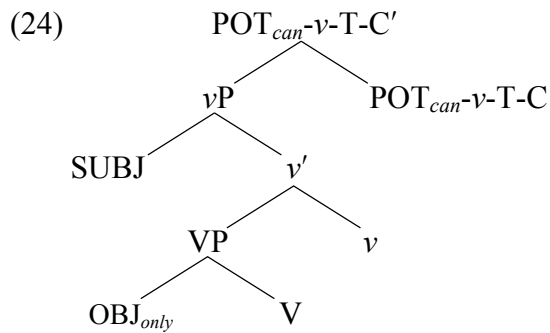
denoted as  $OBJ_{only}$  is merged with the  $V-v$  complex head (cf. (11)a). Crucially, the direct object is Case-valued at this point. From the  $V-v$  complex head,  $v$  excorporates and is merged with  $VP$ , projecting as  $v'$ , as illustrated in (22)b (cf. (12)a). At the stage of (22)c, the subject is merged; however, it should be noted that at this stage the subject is not Case-valued yet (see Chapter 4 for discussion):



Let us consider how the CP-phase is derived. The relevant derivation is illustrated in (23). Note that Saito assumes that T-C is responsible for nominative Case-valuing, following Chomsky (2008). Note also that in the potential constructions with an accusative object, the T-C complex is merged with  $v$  that does not have a Case-valuing ability, as shown in (23)a, and the  $v$ -T-C complex is further merged with the potential suffix denoted as  $POT_{can}$ , as shown in (23)b:



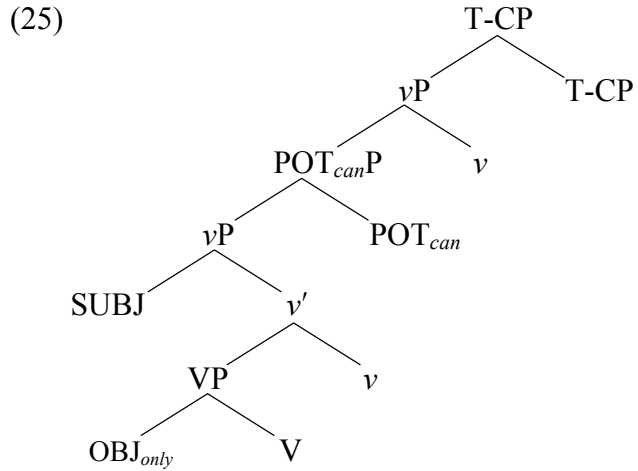
Now, (22)c, the phase responsible for accusative Case-valuation, and (23)b, the phase responsible for nominative Case-valuation, are merged, as illustrated in (24):<sup>7</sup>



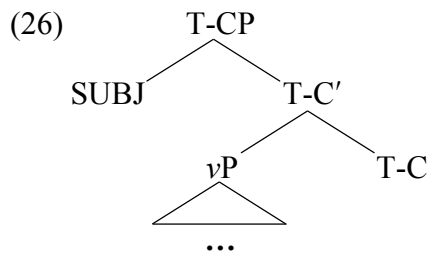
From the structure given in (24), the complex head  $v$ -T-C excorporates, stranding  $POT_{can}$ , and then T-C excorporates, stranding  $v$ , as shown in (25):

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<sup>7</sup> For simplicity, I ignore the hierarchical structure created in (23)b and denote the complex head as  $POT_{can}$ - $v$ -T-C.



The subject then moves to SpecT-CP (to satisfy the EPP requirement of T-C) and is Case-valued as nominative by T-C, as shown in (26), from which C further excorporates, stranding T:



The derivation illustrated in (22) through (26) is compatible with the observation that the accusative object cannot take scope over the potential suffix.

Next, let us consider how the nominative object in the potential construction in (27) is merged and Case-valued:



(27) Zyon-ga migime-dake-ga tumur-eru.

John-nom right-eye-only-nom close-can

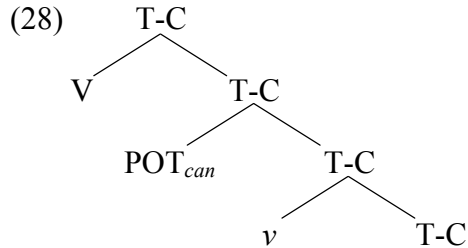
‘John can close only his right eye.’

(only < can, can < only)<sup>8</sup>

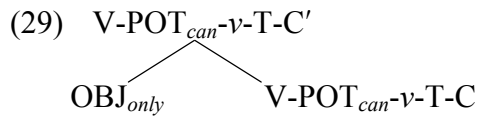
This time, since the Case under consideration is nominative, what is relevant is (20)a.

Thus, the derivation starts with the T-C phasal head. First, the T-C phasal head from

(23)b is merged with V, as shown in (28):



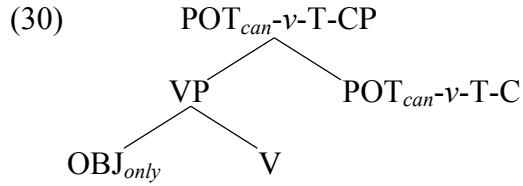
One of the crucial differences from the case in the potential construction with the accusative object is that the nominative object is directly merged with the complex head derived in (28).<sup>9</sup> At the same time, the object is Case-valued as nominative by the complex head V-POT<sub>can</sub>-v-T-C, as shown in (29):



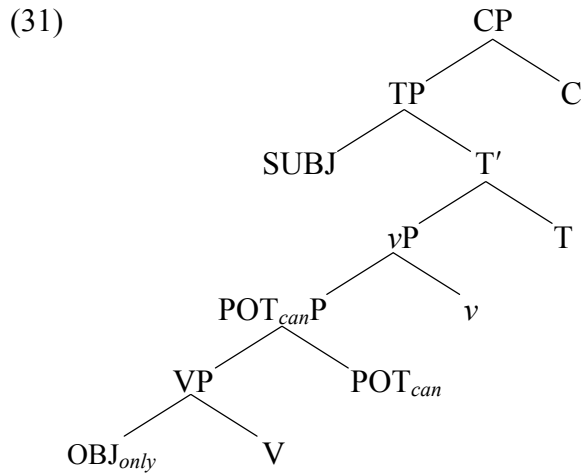
<sup>8</sup> Crucially, Saito assumes that the wide scope of the nominative object over the potential suffix reflects a hierarchical relation in phrase structure, as argued by Tada (1992, 1993). In other words, Saito basically disregards the observation that the nominative object may take lower scope than the potential suffix. See Nomura (2003, 2005a, 2005b) and Takahashi (2010, 2011) for further discussion.

<sup>9</sup> For simplicity, I ignore the hierarchical structure created in (28) and denote the complex head as V-POT<sub>can</sub>-v-T-C. Note however that even in the structure given in (29), OBJ<sub>only</sub> asymmetrically c-commands POT<sub>can</sub>.

From the complex head  $V\text{-POT}_{can}\text{-}v\text{-T-C}$  given in (29),  $\text{POT}_{can}\text{-}v\text{-T-C}$  excorporates, stranding  $V$ , as shown in (30), but the scope relation established in (29) is retained. This is because Saito assumes that head excorporation is covert, and that due to its scope rigidity, covert operations do not affect scope in Japanese:



The structure given in (30) further undergoes three excorporation operations: the first one is the excorporation of  $v\text{-T-C}$ , stranding  $\text{POT}_{can}$ , and the second one is the excorporation of  $\text{T-C}$ , stranding  $v$ , which enables the subject merged in  $\text{SpecPOT}_{can}\text{P}$  to be Case-valued as nominative, and the final one is the excorporation of  $\text{C}$ , stranding  $\text{T}$ . The complete structure for (27) is given in (31):



Recall that Saito assumes that the wide scope of the nominative object over the potential suffix reflects a hierarchical relation in phrase structure (cf. footnote 8). Given this, a question that may arise from the derivation illustrated in (28) through (31) is why the nominative object in the potential construction takes wider scope than the potential suffix (putting aside the observation that the nominative object may take lower scope than the potential suffix). More specifically, at the point when  $POT_{can-v-T-C}$  has excorporated, as shown in (30),  $OBJ_{only}$  should fall within the scope of  $POT_{can}$ . In order to answer this question, Saito argues that the relevant excorporation operations apply covertly, assuming that both overt and covert operations may take place in a single cycle (cf. Bobaljik 1995, 2002). Thus, in (30),  $POT_{can-v-T-C}$ , which appears to c-command  $OBJ_{only}$ , in fact is c-commanded by  $OBJ_{only}$ , in the position prior to the excorporation, which, as discussed above, is the crucial structure for scope interpretation for Saito, given that Saito assumes that due to the scope rigidity, covert operations do not affect scope in Japanese.

### 3.3.3 Extension of Saito (2012)

In 3.3.2, I briefly outlined Saito's (2012) mechanism of licensing accusative and nominative objects in the potential construction. Here, I would like to extend Saito's mechanism by proposing Scope-Order Correspondence, a preference principle, on the basis of the observation that the nominative object may take lower scope than the potential suffix (cf. Nomura 2003, 2005a, 2005b, Takahashi 2010, 2011; the reader should bear in mind that I assume singly-cycle syntax where overt and covert movements take place in the same cycle).

One of the crucial points is that Saito's mechanism is compatible with Kayne's (1994) Linear Correspondence Axiom (LCA), which, roughly put, states that the asymmetric c-command relation reflects the surface linear order. This means that excorporation of heads must be always covert, as long as its overt application would result in a configuration where the c-command relation and the surface linear ordering of constituents do not match. If this is correct, however, why can the nominative object take lower scope than the potential suffix, as observed by Nomura (2003, 2005a, 2005b) and Takahashi (2010, 2011)? In what follows, I suggest a solution to this question by proposing Scope-Order Correspondence, a preference principle much in the spirit of Scope Transparency, put forth by Bobaljik and Wurmbrand (2012) and Wurmbrand (2008, 2010), and assume that it constrains head excorporation.

Let us start with how ScoT works with respect to scope facts in Japanese. The definition of ScoT is given in (32), where the symbol “»” is used to represent the canonical manifestation of scope at LF and linear precedence at PF:

(32) Scope Transparency (ScoT):

If the order of two elements at LF is  $A \gg B$ , the order at PF is  $A \gg B$ .

Note that ScoT constrains optional movement such as scrambling and QR. One of the crucial aspects of ScoT is that it is a preference principle; namely, it is violable in the sense that “[it] is not expected to be universally surface-true; rather, it should be respected to the extent that a language's resources allow for it, and violated only as a last resort” (Bobaljik and Wurmbrand 2012: 373). Takahashi (2010, 2011), building on ScoT,

proposes an interesting analysis for the potential constructions with a nominative object.

Consider (33):

- (33) a. *Dono gakusee-mo koyubi-dake-ga mager-areru.*  
           *every student-even pinkie-only-nom crook-can*  
                                   (\*only > every > can, every > only > can, every > can > only)
- b. *Koyubi-dake-ga<sub>i</sub> dono gakusee-mo t<sub>i</sub> mager-areru.*  
           *pinkie-only-nom every student-even crook-can*  
           ‘Every student can crook only his pinkie.’  
                                   (only > every > can, every > only > can, every > can > only)

In (33)a, the nominative object can scope over the potential suffix, but not over the subject. However, in (33)b, the nominative object can scope over either the potential suffix or the subject. Takahashi claims that ScoT given in (32) provides a straightforward answer; namely, ScoT, a preference principle constraining optional movement such as scrambling and QR, requires that LF and PF match whenever overt movement is available. Note significantly that the linear ordering between the nominative object and the potential suffix in (33) never changes even if the nominative object undergoes scrambling, because Japanese is a head-final language. In such cases, even languages like Japanese, which are rigid regarding scope, resorts to QR, a covert operation that exclusively applies for scope reasons, resulting in the mismatch between LF and PF, in violation of ScoT. The linear ordering between the subject and the nominative object, on the other hand, does change after the nominative object undergoes scrambling. In such cases, as shown in

(33)b, ScoT is at work and the application of QR is suppressed, due to the availability of overt movement (i.e. scrambling).

The question is how an account without recourse to QR, which I am pursuing here, can deal with the fact that the nominative object can take lower scope than the potential suffix. In the spirit of ScoT, I propose Scope-Order Correspondence (henceforth SOC), which is defined as in (34) below:

(34) Scope-Order Correspondence (SOC):

A covert operation can create a new scope relation only if there is no overt operation that yields it.

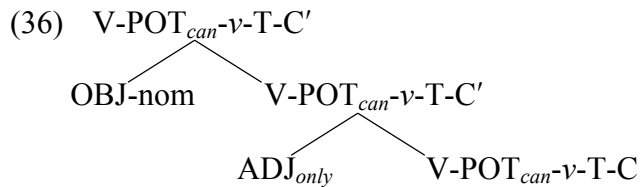
With SOC in mind, let us further reinterpret Takahashi's assumption that head-finality is responsible for the availability of QR. Specifically, I would like to apply Takahashi's insight to the head excorporation theory introduced in 3.2.2, rather than to QR, assuming that head excorporation is constrained by SOC introduced just above. Since SOC allows for a new scope relation unless there is an overt operation that yields it, as defined in (34), the structure given in (31), where  $POT_{can}$  has undergone covert movement, can be directly construed as representing the scope relation. Thus, the observation that the nominative object may take either higher scope (cf. (29)) or lower scope (cf. (31)) than the potential suffix is successfully accounted for.

Crucially, the extension of Saito's (2012) analysis sketched above is consistent with the observation by Takahashi (2010, 2011) that an adjunct with *-dake* 'only' takes higher scope than the potential suffix when it cooccurs with a nominative object, whereas it

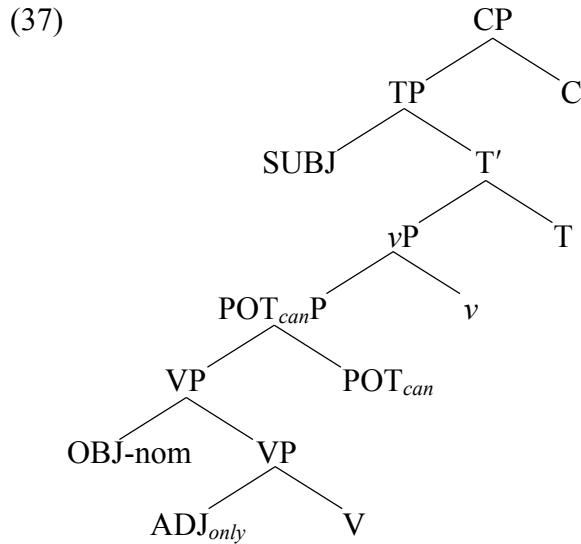
cannot when it cooccurs with an accusative object. The relevant examples are (9), repeated from 3.2 as (35):

- (35) a. Zyon-ga sakana-ga kosyoo-dake-de taber-areru.  
 John-nom fish-nom pepper-only-with eat-can  
 ‘Taro can eat fish with only pepper.’ (only > can, ?can > only)
- b. Zyon-ga sakana-o kosyoo-dake-de taber-areru.  
 John-nom fish-acc pepper-only-with eat-can  
 ‘Taro can eat fish with only pepper.’ (can > only, ?\*only > can)

Let us consider the case where the adjunct with *-dake* cooccurs with a nominative object first. The nominative object is directly merged with the V-POT<sub>can</sub>-v-T-C complex head, as has already shown in (30), from which POT<sub>can</sub>, v, T, and C, respectively, excorporates covertly. If POT<sub>can</sub> is interpreted in the base-generated position, the only reading available is that where the adjunct with *-dake* takes higher scope than the potential suffix, as illustrated in (36):



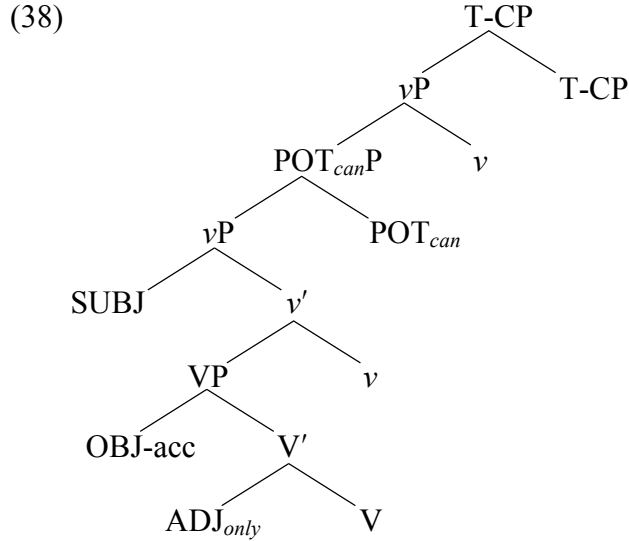
If, on the other hand,  $POT_{can}$  is interpreted in the moved position, the relevant scope calculation is executed on the basis of the structure given in (37) (on a par with (31)), where the adjunct with *-dake* takes lower scope than  $POT_{can}$ .<sup>10</sup>



Now, let us turn to the case with an accusative object. Here, the accusative object is directly merged with the V- $v$  complex head, from which  $v$  exorporates, as shown in (22). Under this derivation, the adjunct with *-dake* never takes higher scope than the potential suffix. This is because  $POT_{can}$  resides in structurally too high a position, i.e. the T-C phase, as shown in (38). Thus, Takahashi's observation that the adjunct with *-dake* is only allowed to take lower scope than the potential suffix is straightforwardly accounted for under the excorporation analysis.

<sup>10</sup> I leave open working out the semantic interaction between the VP and the potential (and whether this would require using the initial complex head structure). Note also that I assume that in contrast to heads, a phrase that undergoes A-movement, like a subject undergoing A-movement to SpecTP, can be interpreted only in the moved position for scope.



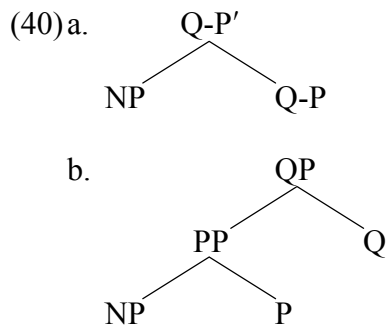


Finally, let us examine whether the proposed analysis extends to cases where an adjunct never takes higher scope than the potential suffix, regardless of whether it cooccurs with a nominative object or an accusative object. Consider (10), repeated as (39) from 3.2:

- (39)a. Zyōn-ga kono zi-ga katame-de yom-eru.  
 John-nom this character-nom one eye-with read-can  
 ‘John can read this character with one eye.’ (can > one, \*one > can)
- b. Zyōn-ga kono zi-o katame-de yom-eru.  
 John-nom this character-acc one eye-with read-can

(39)a and (39)b are derived exactly in the same way as (35)a and (35)b, respectively, as illustrated in (37) and (38), except that the adjunct involved is not of the kind that would undergo QR (under Takahashi’s assumption Japanese does have QR, a covert operation that exclusively applies for scope reasons; cf. 3.2). It is no wonder that the adjunct

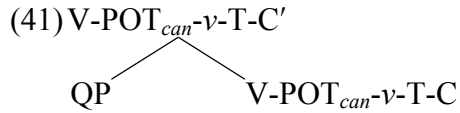
cooccurring with the accusative object never takes higher scope than the potential suffix; it is simply because the potential suffix is merged with the T-C phase and thus is structurally too high. The question is why even the adjunct cooccurring with the nominative object cannot take scope over the potential suffix. I assume that the unavailability of the reading in question is due to the categorial status difference between adjuncts with *-dake* and those without. In other words, the adjunct in (35) is a QP, whereas the adjunct in (39) is a PP dominating an indefinite NP.<sup>11</sup> Under this option, I assume that *-dake* is a Q head that undergoes covert excorporation in order to form a QP. An expression like *kosyoo-dake-de* ‘pepper-only-with’ in (35) is thus formed in two steps. The NP is first merged with the complex head consisting of Q and P, as illustrated in (40)a. Then, Q excorporates from the complex head, as illustrated in (40)b:



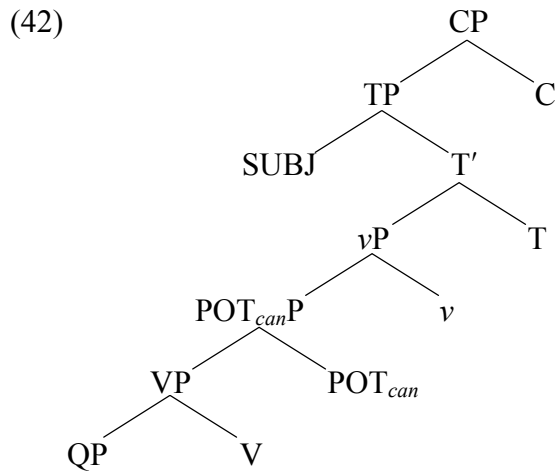
Thus, the adjunct *kosyoo-dake-de* in (35) can take higher scope than the potential suffix in the first merged position, as illustrated in (41):

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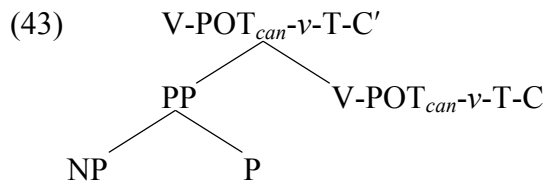
<sup>11</sup> In fact, the reading where the potential suffix takes higher scope than the adjunct with *dake* in (35) seems to become more salient by switching the order between *dake* and the instrumental postposition. The fact that the relevant reading obtains irrespective of the order between them seems to lend support for treating the constituent headed by *dake* as QP (see the discussion that immediately follows).



It is also possible for the adjunct to take lower scope than the potential suffix, as illustrated in (42). This is consistent with SOC, which states that even covert movement may create a new scope interpretation if there is no overt operation that yields it:



The adjunct in (39), on the other hand, is a PP, so that the indefinite NP that it dominates cannot c-command and take scope over the potential suffix in the first merged position, as illustrated in (43):



From the structure given in (43),  $POT_{can}$  excorporates, but at no stage in the derivation, can it take scope under the indefinite NP, since the NP is dominated by P.

At first sight, it appears that the characterization of the constituents headed by *-dake* as QPs and those without as PPs is problematic, given the contrast between (44)a and (44)b. *Sore-de* ‘with it’ in (44)a is a PP but it induces a stronger violation of Condition C than the QP *sore-dake-de* ‘only with it’ in (44)b:

- (44) a. \**Sore-de-wa<sub>i</sub> ronbun-ga<sub>i</sub> sugureteiru-kadooka handandekinai.*  
           it-with-top     article-nom   excellent-whether     cannot judge  
           ‘It is impossible to judge with it whether the article is excellent.’
- b. ?*Sore-dake-de-wa<sub>i</sub> ronbun-ga<sub>i</sub> sugureteiru-kadooka handandekinai.*  
           it-only-with-top     article-nom   excellent-whether     cannot judge  
           ‘It is impossible to judge only with it whether the article is excellent.’

However, a more detailed scrutiny of related data reveals that the contrast given in (44) does not constitute a counterexample to treating the constituents headed by *-dake* as QPs and those without as PPs. Recall that, as discussed in Chapter 2, topicalization of NPs, an example of which is repeated from Chapter 2 as (45)b, disallows reconstruction, i.e. the bound variable reading of *pro*, in contrast to the case of scrambling of NPs, as in (45)a. However, in contrast to the topicalization of NPs, the topicalization of PPs allows the bound variable reading of the *pro*, as shown in (46)b:

(45)a. [ *pro*<sub>i</sub> kaita ronbun ]-o<sub>j</sub> dare-ga<sub>i</sub> t<sub>j</sub> happyoosita no?  
 wrote article -acc who-nom presented Q

b. \*[ *pro*<sub>i</sub> kaita ronbun ]-wa, dare-ga<sub>i</sub> happyoosita no?  
 wrote article -top who-nom presented Q

‘Who presented the article that s/he wrote?’

(46)a. [ *pro*<sub>i</sub> kaita ronbun ]-de<sub>j</sub> dare-ga<sub>i</sub> t<sub>j</sub> happyoosita no?  
 wrote article -with who-nom presented Q

b. [ *pro*<sub>i</sub> kaita ronbun ]-de-wa, dare-ga<sub>i</sub> happyoosita no?  
 wrote article -with-top who-nom presented Q

‘Who presented with the article that s/he wrote?’

It then seems plausible that in contrast to topicalized NPs (see Chapter 2), topicalized PPs have undergone movement, which is then subject to reconstruction, as claimed in Saito (1985, 2010b). If this is the case, the contrast between (45)b and (46)b should naturally follow; the *pro* in (46)b is simply licensed as a bound variable in the reconstructed position, in contrast to the *pro* in (45)b. Furthermore, the contrast between (44)a and (44)b naturally follows as well; the PP in (44)a and the QP in (44)b are reconstructed; (44)a is ruled out due to a Condition B violation, and (44)b is ruled in because the QP closes the binding domain, i.e., the QP shields the pronoun from being bound by the subject in violation of Condition B. This is illustrated in (47):

(47)a. \*[<sub>PP</sub> Sore-de-wa ]<sub>i</sub> ronbun-ga<sub>i</sub> sugureteiru-kadooka *t<sub>i</sub>* handandekinai.

it-with-top article-nom excellent-whether cannot judge

‘It is impossible to judge with it whether the article is excellent.’

b. ?[<sub>QP</sub> [<sub>PP</sub> Sore-dake-de-wa ] ]<sub>i</sub> ronbun-ga<sub>i</sub> sugureteiru-kadooka *t<sub>i</sub>* handandekinai.

it-only-with-top article-nom excellent-whether cannot judge

‘It is impossible to judge only with it whether the article is excellent.’

Another piece of evidence for treating adjuncts with *-dake* as QP and those without as PP comes from the fact that pronouns with *-de* ‘with’ behave differently, depending on whether or not they are followed by *-dake*, especially when they are used like quantifiers. Note that quantifiers such as *zenbu* ‘total’ and *san-satu* ‘three volumes’, when followed by *-de*, are allowed to modify numerical expressions, which further modify the degree of the event or state denoted by the predicate. This is exemplified in (48):

(48)a. Kono hon-wa zenbu-de hyakuman-bu ureta.

this book-top all-with a million-copies sold

‘As for this book, a million copies sold in total.’

b. Kono hon-wa san-satu-de hyakuman-bu ureta.

this book-top three-volumes-with a million-copies sold

‘As for this book, a million copies sold in three volumes.’

What should be noted is that the same holds for pronouns followed by *-dake* and *-de* like *sore-dake-de* ‘by itself/themselves’, as in (48). Crucially, however, there is a contrast between (49)a and (49)b:

- (49)a. Kono    hon-wa<sub>i</sub>    sore-dake-de<sub>i</sub>    hyakuman-bu    ureta.  
           this     book-top    it-only-with    a million-copies    sold  
           ‘As for this book, a million copies sold by itself.’
- b. \*Kono    hon-wa<sub>i</sub>    sore-de<sub>i</sub>    hyakuman-bu    ureta.  
           this     book-top    it-with     a million-copies    sold  
           ‘As for this book, a million copies sold by it.’

The contrast in (49)b seems to be rather straightforwardly accounted for under the current proposal; the QP closes the binding domain, hence the pronoun in *sore-dake-de* in (49)a is protected by the QP projection from being bound by the subject in violation of Condition B. On the other hand, the pronoun in *sore-de* in (49)b has nothing to protect it from being bound by the subject in violation of Condition B, and the sentence is correctly ruled out.

Before concluding this subsection, let us look at data from a language other than Japanese that are consistent with SOC, which states that a covert operation can create a new scope relation only if there is no overt operation that yields it. The relevant data are from modern Mongolian. Bao, Hasebe, and Maki (2014) demonstrate that in this language, existential quantifiers must always take scope over universal quantifiers; the distributive reading where universal quantifiers take wider scope than existential quantifiers is never possible regardless of the structural positions and grammatical functions. In (50) and (51), *kümün бүкүн* ‘everyone’ in the subject position c-commands *yamar nige kümün* ‘someone’ and *ken* ‘who’ in the object position, respectively. Also, in (52) and (53), *yamar nige kümün* in the subject position c-commands *kümün бүкүн* in the object position. However, in all cases, the pair-list (i.e. distributive) interpretation where

the universal quantifier takes wide scope over the existential quantifier and the *wh*-phrase is impossible:<sup>12</sup>

(50) Tere rali du, kümün бүкүн-Ø yamar nige kümün-i qara-jai.

that rally at everyone-nom someone-acc saw

‘Everyone saw someone at the rally.’

\*everyone > someone, someone > everyone

(51) Tere rali du, kümün бүкүн-Ø ken-i qara-γsan boi.

that rally at everyone-nom who-acc saw Q

‘Who did everyone see at the rally?’

\*everyone > who, who > everyone

(52) Tere rali du, yamar nige kümün-Ø kümün бүкүн-i qara-jai.

that rally at someone-nom everyone-acc saw

‘Someone saw everyone at the rally.’

<sup>OK</sup>someone > everyone, \*everyone > someone

(53) Tere rali du, ken-Ø kümün бүкүн-i qara-γsan boi.

that rally at who-nom everyone-acc saw Q

‘Who saw everyone at the rally?’

<sup>OK</sup>who > everyone, \*everyone > who

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<sup>12</sup> For simplicity, I put aside the collective interpretation (this interpretation is thus not indicated in the judgments).



The relevant scope interpretation remains constant even after the universal quantifier is scrambled over the existential quantifier, as shown in (54) and (55):

(54) Tere rali du, kümün бүкүн-i<sub>i</sub> yamar nige kümün-Ø *t<sub>i</sub>* qara-jai.

that rally at everyone-acc someone-nom saw

‘Someone saw everyone at the rally.’

<sup>OK</sup>someone > everyone, \*everyone > someone

(55) Tere rali du, kümün бүкүн-i ken-Ø *t<sub>i</sub>* qara-γsan boi.

that rally at everyone-acc who-nom saw Q

‘Who saw everyone at the rally?’

<sup>OK</sup>who > everyone, \*everyone > who

Also noteworthy is the fact that Mongolian ECM, where the embedded subject is supposed to undergo overt movement (see Maki et al. 2010), does not allow the universal quantifier in the embedded subject position to take scope over the existential quantifier and the *wh*-phrase in the matrix subject position. In (56) and (57), the embedded subject is allowed to appear in accusative only when it precedes the adverbial *öcügedür* ‘yesterday’ that modifies the embedded clause (cf. Maki et al. 2010), which suggests that the embedded subject undergoes overt object shift.

- (56) a. Yamar nige kümün-Ø kümün büri-gi öcügedür yalatan geju helejei.  
 someone-nom person every-acc yesterday criminal that said

<sup>OK</sup>someone > everyone, \*everyone > someone

- b. \*Yamar nige kümün-Ø öcügedür kümün büri-gi yalatan geju helejei.  
 someone-nom yesterday person every-acc criminal that said

‘Someone said that everyone was criminal tomorrow.’

- (57) a. Ken-Ø kümün büri-gi öcügedür yalatan geju hele-gsen boi.  
 who-nom person every-acc yesterday criminal that said Q

<sup>OK</sup>who > everyone, \*everyone > who (\*pair-list)

- b. \*Ken-Ø öcügedür kümün büri-gi yalatan geju hele-gsen boi.  
 who-nom yesterday person every-acc criminal that said Q

‘Who said that everyone was criminal tomorrow?’

If traces left by A-movement can be used for quantifier interpretation, as proposed by Hornstein (1995), among others, the universal quantifier that appears as the ECMed subject should be able to take scope over the existential quantifier/*wh*-phrase since it c-commands the traces of the existential quantifier and the *wh*-phrase that appear as the matrix subject. This is because the ECMed subject should be raised to the outer SpecvP, if the traditional overt object shift analysis of ECM is on the right track. The lack of inverse scope in (56) and (57) thus provides additional evidence that the c-command configurations are irrelevant for determining scope interpretation in modern Mongolian.

However, Bao, Hasebe, and Maki (2014) show that the pair-list interpretation where the universal quantifier takes scope over the existential quantifier and the *wh*-phrase

suddenly becomes available once the existential quantifier and the *wh*-phrase in the object position are followed by a reflexive element, which they denote as RP and which has allomorphs like *-ban*, *-ben*, *-yan*, and *-yen*. In (58) and (59), with the universal quantifier in the subject position, the existential quantifier and the *wh*-phrase to which the reflexive pronoun is attached are allowed to fall within the scope of the universal quantifier, rendering the pair-list interpretation available. This entails that the only way to get the wide scope on the universal quantifier is the utilization of the reflexive element.

(58) Tere rali du, kümün бүкүн-Ø yamar nige kümün-yen qara-jai.

that rally at everyone-nom someone-RP saw

‘Everyone saw someone at the rally.’

<sup>OK</sup>everyone > someone, <sup>OK</sup>someone > everyone

(59) Tere rali du, kümün бүкүн-Ø ken-yen qara-γsan boi.

that rally at everyone-nom who-RP saw Q

‘Who did everyone see at the rally?’

<sup>OK</sup>everyone > who, <sup>OK</sup>who > everyone

Building on the observations above, it can be concluded that in modern Mongolian, neither linear order nor the c-command relations reflect the relevant scope interactions, regardless of whether the relevant configurations are base-generated or created by scrambling or overt object shift. Bao, Hasebe, and Maki (2014) propose that what is responsible for the relevant scope interactions in the RP cases is the function of the RP as a distributer, and claim that the RP induces covert movement to the closest universal

quantifier. These data thus confirm SOC; since modern Mongolian does not have an overt operation that changes scope relations, only the covert movement of the RP can create new scope relations.

### **3.3.4 The Japanese ECM Revisited**

In this subsection, I analyze Japanese ECM by way of the excorporation theory sketched above. Recall that I pointed out in Chapter 2 that Tanaka's (2002) data, which seem to demonstrate that Japanese ECM involves overt object shift, are not in fact as conclusive as they appear to be. I claimed there that the same effects can be obtained even if object shift involved in Japanese ECM is not overt. This is consistent with Hiraiwa's (2005) data, which show that Japanese ECM does not involve overt object shift. I hence arrived at the conclusion that the ECMed subject in Japanese undergoes covert object shift in order to satisfy the requirement of the V-*v* complex head on merger (i.e., Case-licensing still requires object shift to take place here; see Bošković 2007, 2008, 2010, Saito 2012 and the discussion below).

For the sake of providing additional confirmation that the overt object shift analysis of Japanese ECM is not so conclusive, let us compare Japanese with a language that seems to involve overt object shift of the ECMed subject across finite clauses. As a representative of such overt object shift languages, I would like to turn our attention to Turkish, which is close to Japanese in terms of its language family. Zidani-Eroğlu (1997) provides three pieces of convincing evidence that the ECMed subject in Turkish is the matrix clause object (though Zidani-Eroğlu puts aside how the relevant structure is derived).

The first evidence for the overt object shift analysis of Turkish ECM concernn with adverbial modification. Zidani-Eroğlu demonstrates that the adverbial *beri öpüldü* ‘since this morning’ can modify the matrix predicate only when the embedded subject is ECMed, as shown in (60)b, which contrasts with (60)a, concluding that both the adverbial and the ECMed subject are located in the matrix position in (60)b:

- (60) a. \*Siz-Ø [ Ali-Ø sabah-tan beri öpüldü ] sanıyorsunuz.  
           you-nom Ali-nom morning-abl since being kissed is thinking
- b. Siz-Ø [ Ali-yi sabah-tan beri öpüldü ] sanıyorsunuz.  
           you-nom Ali-acc morning-abl since being kissed is thinking
- ‘You believe that Ali was kissed since this morning.’

Zidani-Eroğlu further demonstrates that the adverbial *sık sık* ‘often’, which cannot modify the matrix predicate if it precedes the ECMed subject, as shown in (61)a, gets construed with the matrix predicate once it is placed after the ECMed subject, as shown in (61)b. (61)b thus denotes both the frequency of beating and believing, while (61)a only denotes the frequency of beating. This again entails that both the adverbial and the ECMed subject occupy the matrix clause.

- (61) a. Ali-Ø sık sık Can-i dövldü sanır.  
           Ali-nom often Can-acc have been beaten believe
- b. Ali-Ø Can-i sık sık dövldü sanır.  
           Ali-nom Can-acc often have been beaten believe
- ‘Ali often believes that Can was beaten.’

Recall the discussion in Chapter 2 that the position of the matrix adverbials provides a key to identifying the structural position of the ECMed subject in Japanese as well. It was shown there that the matrix adverbial *orokanimo* in (62) can be preceded by the ECMed subject, but not by the embedded nominative subject (cf. Kuno 1976, Tanaka 2002):

- (62)a. Taro<sub>o</sub>-wa Hanako-o<sub>i</sub> orokanimo [ *t<sub>i</sub>* tensai da to ] omotteiru.  
           Taro-top Hanako-acc stupidly genius is that be thinking
- b. \*Taro<sub>o</sub>-wa [ Hanako-ga orokanimo tensai da to ] omotteiru.  
           Taro-top Hanako-nom stupidly genius is that be thinking  
           ‘Stupidly, Taro believes that Hanako is a genius.’

However, the contrast given in (62) does not in fact strongly support the overt object shift analysis of Japanese ECM. One of the reasons is that (62)b sounds perfect under the reading where the embedded nominative subject is contrastively focused (the embedded subject in (62)b can then be taken to have undergone focus movement). (62)b, with the embedded subject interpreted as a normal non-focused nominative subject, is in fact independently ruled out. Specifically, I claim below that movement of the embedded subject to the matrix clause is an instance of scrambling (regardless of whether it is nominative or ECMed; cf. Hiraiwa 2001, 2005). If this is the case, (62)b, with the embedded subject interpreted as a normal non-focused nominative subject, can be excluded as a violation of the well-known ban on scrambling nominative subjects (cf. Saito 1985), illustrated by (63), while (62)a is fine because such illegitimate scrambling is not involved:

(63) \*Hanako-ga<sub>i</sub> Taro-ga [ *t<sub>i</sub>* tensai da to ] omotteiru.  
 Hanako-nom Taro-nom genius is that be thinking  
 ‘Taro believes that Hanako is a genius.’

Further, *orokanimo* in (62) can also precede the ECMed subject, which means that (62)a is not a decisive example showing that the ECMed subject is obligatorily raised to the object position of the matrix clause. Compare also (64) with the unacceptability of Turkish (61)a on the matrix clause reading of the adverbial:

(64) Taro-wa orokanimo [ Hanako-o tensai da to ] omotteiru.  
 Taro-top stupidly Hanako-acc genius is that be thinking  
 ‘Stupidly, Taro believes that Hanako is a genius.’

I thus maintain that the movement of the ECMed subject involved in (62)a is an instance of optional movement like scrambling.

Another argument that the ECMed subject in Turkish is in the matrix object position comes from NPI licensing. Zidani-Eroğlu claims that the nominative NPI in the embedded clause can be licensed by either the embedded negation, as in (65)a, or the matrix negation, as in (65)b:<sup>13</sup>

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<sup>13</sup> Note that a subject NPI with clausemate negation is allowed in Turkish, though this is not possible in English, as in \**Anybody didn't come*.

(65) a. Siz-Ø [ kimse-Ø bu kitab-ı okumadı ] sanıyorsunuz.  
 you-nom anybody-nom this book-acc did not read is thinking  
 ‘You think that nobody read this book.’

b. Siz-Ø [ kimse-Ø bu kitab-ı okudu ] sanmıyorsunuz.  
 you-nom anybody-nom this book-acc read is not thinking  
 ‘You do not think that anybody read this book.’

However, the same observation is not found with the ECMed NPI. Importantly, the ECMed NPI cannot be licensed by the embedded negation, as shown in (66), suggesting that the ECMed element is in the matrix clause:

(66) a. \*Siz-Ø [ kimse-yi bu kitab-ı okumadı ] sanıyorsunuz.  
 you-nom anybody-acc this book-acc did not read is thinking  
 ‘You think that nobody has read this book.’

b. \*Siz-Ø [ kimse-yi bu kitab-ı okumayacak ] sanıyorsunuz.  
 you-nom anybody-acc this book-acc is not going to read is thinking  
 ‘You think that anybody is not going to read this book.’

Interesting as it is, NPI licensing does not provide us with a clue to identifying the position of the ECMed subject in Japanese. The problem is that first of all, NPIs in Japanese do not manifest their Case-markers. For example, the NPI *daremo* in (67) absorbs the Case-marker, irrespective of whether it is the nominative Case-marker or the accusative Case-marker, and hence the overt manifestation of Case-markers is prohibited:



- (67) a. Taroo-wa daremo\*-ga/\*-o tensai de nai to omotteiru.  
 Taro-top anyone\*-nom/\*-acc genius is not that be thinking  
 ‘Taro thinks that anybody is not a genius.’
- b. Taroo-wa daremo\*-ga/\*-o tensai da to omottei nai.  
 Taro-top anyone\*-nom/\*-acc genius is that be thinking not  
 ‘Taro does not think that anybody is a genius.’

Thus, it is hard to tell whether the NPI in (67) appears with the nominative Case-marker or the accusative Case-marker, again making it impossible to tell whether the ECMed subject has undergone overt object shift or not.

Finally, let us look at a constraint on cross-clausal scrambling in Turkish, which lends further support for the conjecture that the ECMed subject is in the matrix clause. In Turkish, the embedded direct object cannot scramble over the matrix dative indirect object, as demonstrated in (68):

- (68) a. Ali-Ø Banu-ya [ Can-Ø kitab-ı yırttı ] dedi.  
 Ali-nom Banu-dat Can-nom book-acc tore said  
 b. \*Ali-Ø kitab-ı<sub>i</sub> Banu-ya [ Can-Ø *t<sub>i</sub>* yırttı ] dedi.  
 Ali-nom book-acc Banu-dat Can-nom tore said  
 ‘Ali told Banu that Can tore the book.’

Generalizing (68) in such a way that scrambling of an embedded element over a matrix object is not allowed in Turkish, Zidani-Eroğlu argues that (69)b is ill-formed because the

embedded object is scrambled over the ECMed subject, which has already been raised to the matrix clause:

- (69) a. Ali-Ø    Banu-yu<sub>i</sub>    [    *t<sub>i</sub>*    bu    kitab-*i*    okudu    ]    saniyor.  
           Ali-nom   Banu-acc    [        this   book    read        is thinking
- b. \*Ali-Ø    bu    kitab-*i<sub>j</sub>*    Banu-yu<sub>i</sub>    [    *t<sub>i</sub>*    *t<sub>j</sub>*    okudu    ]    saniyor.  
           Ali-nom   this   book-acc   Banu-acc                    read        is thinking
- ‘Ali thinks that Banu read this book.’

Again, arguments based on scrambling do not provide us with a clue to identifying the position of the ECMed subject in Japanese, either. This is because Japanese does not disallow scrambling crossing a matrix constituent in the first place. In (70)b, the direct object of the embedded verb is scrambled over the matrix indirect object, but the sentence is perfectly well-formed:

- (70) a. Taroo-ga    Hanako-ni    [    Zyon-ga    kono    hon-o    katta    to    ]    itta.  
           Taro-nom   Hanako -dat    John-nom   this    book-acc   bought   that    said
- b. Taroo-ga    kono    hon-o<sub>i</sub>    Hanako-ni    [    Zyon-ga    *t<sub>i</sub>*    katta    to    ]    itta.  
           Taro-nom   this    book-acc   Hanako -dat    John-nom    bought   that    said
- ‘Taro told Hanako that John bought this book.’

In sum, the comparison between Japanese and Turkish reveals that the evidence for the overt object shift analysis of Turkish ECM is not directly applicable to Japanese ECM, failing to provide support for the overt object analysis of Japanese ECM. In what follows,

I further reexamine the data that seemingly show that overt object shift applies in Japanese ECM, and demonstrate that this is not in fact the case.

### 3.3.4.1 Complex NPI Licensing

First of all, let us consider the contrast between (71)a and (71)b (repeated from Chapter 2), which Tanaka (2002) uses as a piece of evidence showing that the ECMed subject in Japanese undergoes overt object shift:

- (71)a. Dareka-ga minna-o<sub>i</sub> [ *t<sub>i</sub>* tensai da to ] omotteiru.  
 someone-nom everyone-acc [ genius is that ] be thinking  
 ‘Someone believes that everyone is a genius.’

(someone > everyone, everyone > someone)

- b. Dareka-ga [ minna-ga tensai da to ] omotteiru.  
 someone-nom [ everyone-nom genius is that ] be thinking  
 ‘Someone believes that everyone is a genius.’

(someone > everyone, everyone > \*someone)

Tanaka (2002) claims that the applicability of QR in (71)a as opposed to (71)b shows that the ECMed subject in Japanese has been raised to the matrix clause at the point when QR applies. However, it is widely-held that Japanese is much more rigid (than English, for example) regarding scope. In the light of this, it may be better to capture this observation without recourse to QR. Below, I will do that, returning to these examples. Before doing that I point out an argument that the object shift operation we are concerned with at least

need not be overt. Consider the contrast in ill-formedness between (72)a and (72)b (taken from Hiraiwa 2005):

- (72) a. Taroo-wa orokanimo dare-o baka da to-mo omotteinai.  
           Taro-top stupidly who-acc stupid is that-either is not thinking
- b. \*Taroo-wa dare-o<sub>i</sub> orokanimo t<sub>i</sub> baka da to-mo omotteinai.  
           Taro-top who-acc stupidly stupid is that-either is not thinking  
           ‘Stupidly, Taro does not believe that anyone is stupid.’

Hiraiwa’s reasoning regarding the relevant contrast is repeated below. Given a sentence that involves Neg and an NPI consisting of a *wh*-phrase and *-mo*, there is a constraint in Japanese that requires Neg to c-command *-mo*, which is in turn required to c-command the *wh*-phrase (cf. Kishimoto 2001). This constraint is satisfied in (72)a, but not in (72)b, because in the latter, the *wh*-phrase is raised to the matrix domain and hence cannot be c-commanded by *-mo*. Thus, this indicates that the ECMed subject in (72) is Case-valued without being raised to the matrix domain in overt syntax. This means that the movement of the ECMed subject into the matrix clause is not obligatory, which can be captured under the scrambling analysis of this movement.

### 3.3.4.2 Covert Object Shift

On the basis of Hiraiwa’s data given in (72), I conclude that the ECMed subject in Japanese does not undergo overt object shift. However, recall that in order for the ECMed subject to be Case-valued, it must c-command the matrix V-*v* complex head, following Bošković (2007, 2011) and Saito (2012). One crucial consequence of this analysis,

coupled with the NPI data just discussed, is that the ECMed subject in Japanese then undergoes covert object shift. More specifically, the ECMed subject in Japanese is base-generated in the embedded SpecCP (cf. Chapter 2), and moves covertly to SpecV-*v* for the sake of Case-valuation. Before returning to the scope facts (71) from this perspective, I discuss two potential arguments that the object shift involved in Japanese ECM is not overt.

Let us take a look at the first argument for the covert object shift analysis of the ECMed subject in Japanese that I am pursuing here. It is well-known that Japanese has the so-called Transitivity Restriction (TR), which prohibits a genitive subject from cooccurring with an accusative object (cf. Harada 1971, 1976a, Hiraiwa 2000, 2005, Miyagawa 1993, Saito 2004, Shibatani 1978, Watanabe 1994, 1996, etc.). Ochi (2009) observes that a direct object whose Case-marker is dropped is compatible with a genitive subject, but an accusative Case-marked object is not, as shown in (73)b. Compare (73)b with (73)a, where the subject appears in nominative, hence conflicts with neither accusative Case-marked direct object nor the Case-dropped direct object:

- (73)a. Taroo-ga    hon-o/- $\emptyset$       kat-ta      mise  
           Taro-nom   book-acc/- $\emptyset$    buy-past   store
- b. Taroo-no    hon\*-o/- $\emptyset$       kat-ta      mise  
           Taro-gen   book\*-acc/- $\emptyset$    buy-past   store  
           ‘the store where Taroo bought a book’

It is worth pointing out here that TR holds only when the genitive subject and the accusative direct object are clausemates. The genitive subject in (74) does not induce the TR, since the accusative direct object is in the lower clause:

- (74) Taro<sub>o</sub>-ga/no    Zyon-ga    Hanako-o    hometa    to    itta    riyuu  
       Taro-nom/gen John-nom Hanako-acc praised    that    said    reason  
       ‘the reason why Taro said that John praised Hanako’

Now, if the TR is a restriction that simply prohibits genitive subject from cooccurring with a clausemate accusative direct object, we may expect that scrambling of the direct object from the lower clause to the higher clause would also induce the TR effect. However, this is not the case, as shown in (75):<sup>14</sup>

- (75) Hanako-o<sub>j</sub>    Taro<sub>o</sub>-ga/no<sub>i</sub>    Zyon-ga    *t<sub>j</sub>*    hometa    to    itta    riyuu  
       Hanako-acc Taro-nom/gen John-nom            praised    that    said    reason  
       ‘the reason why Taro said that John praised Hanako’

Scrambling thus does not induce the TR effect. This conclusion is further reinforced by observing cases where the lowest clause is a control infinitive, given in (76):

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<sup>14</sup> There is some speaker variation regarding examples like (75) and (76). The argument about to be made holds for the speakers who find such examples better than (73)b with *-o*. For those who do not, TR is simply not relevant to the issue under consideration.

(76) Taroo-ga/no Zyion-ni<sub>i</sub> [ PRO<sub>i</sub> Hanako-o homeruyooni ] itta riyuu  
 Taro-nom/gen John-dat [ Hanako-acc to praise ] said reason  
 ‘the reason why Taro told John to praise Hanako’

Let us examine what happens if the object in the control infinitive clause undergoes long-distance scrambling in front of the genitive subject. Nemoto (1991) demonstrates that such scrambling can be A-scrambling (in contrast to long-distance scrambling out of non-control CPs like the one in (75)). Note however that the scrambled accusative object does not conflict with the genitive subject in the higher clause, as shown in (77):

(77) Karera-o otagai-no sensee-ga/no Zyion-ni<sub>i</sub> [ PRO<sub>i</sub> *t<sub>j</sub>* homeruyooni ]  
 They-acc each other-gen teacher-nom/gen John-dat [ to praise ]  
 itta riyuu  
 said reason  
 ‘the reason why each other’s teacher told John to praise them

I thus take (74) through (77) to be an indication that scrambling never induces the TR, regardless of whether it is A- or A’-scrambling.

Next, let us turn to the case where the ECMed subject interacts with the genitive subject. The relevant data are in (78), cited from Taguchi and Uchishiba (2011):

- (78)a. Taroo-ga/no<sub>i</sub>    *pro*<sub>i</sub>    Hanako-o    hometa    to    itta    riyuu  
           Taro-nom/gen            Hanako-acc    praised    that    said    reason  
           ‘the reason why Taro said that he praised Hanako’
- b. Taroo-ga/\*no    Hanako-o    tensaida    to    omou    riyuu  
           Taro-nom/\*gen    Hanako-acc    genius    that    think    reason  
           ‘the reason why Taro believes Hanako to be a genius’

In both (78)a and (78)b, the genitive subject and the accusative NP *Hanako-o* are phonetically adjacent to each other. However, the genitive subject can cooccur with the accusative NP only in (78)a. This is because the accusative NP *Hanako-o* in (78)a is the object of the most deeply embedded verb *hometa* ‘praised’. The subject of the clause appears as *pro* coindexed with the matrix subject. Thus, in (78)a, the accusative NP and the genitive subject are not clausemates. The question is why the accusative NP in (78)b cannot cooccur with the genitive subject. We have already seen that Japanese does not have obligatory object shift in this environment (i.e. that the accusative NP does not have to move overtly into the matrix clause). Further, we have seen that scrambling of the accusative direct object does not induce the TR, regardless of whether it is A- or A’-scrambling. Hence, I conclude that the incompatibility of the ECMed subject with the genitive subject in (78)b is not due to scrambling, but it provides a piece of evidence that the ECMed subject has undergone covert object shift.

Let us look at another argument for the covert object shift analysis of the ECMed subject in Japanese. What is relevant here is Takahashi’s (1994) discussion of Nominative Genitive Conversion (NGC), which may provide additional evidence against overt object shift in Japanese ECM. Putting technical details aside, Takahashi claims that



genitive subjects in Japanese are moved and adjoined to sentential nominals. This analysis is supported by the contrast between (79)a and (79)b (cf. Miyagawa 1993). Both of them allow the reading where the subject takes lower scope than the noun heading the sentential nominal. What is important is that the genitive subject in (79)b can, but the nominative subject in (79)a cannot, take wide scope over the head noun. This naturally follows once it is assumed that only the genitive subject undergoes movement to a position that c-commands the head noun. It is also important to note that the relevant movement of the genitive subject should occur covertly. This is because such ambiguity obtains even with temporal adverbs like *kinoo* ‘yesterday’ in the clause-initial position, which is located within the complement of the head noun, as shown in (79):

- (79)a. *kinoo*      *Zyon-to*    *Mearii-ga*    *kita*      *kanoosee*  
yesterday   John-and   Mary-nom   came   probability  
‘the probability that John and Mary came (together) yesterday’  
(probability > John and Mary, \*John and Mary > probability)
- b. *kinoo*      *Zyon-to*    *Mearii-no*    *kita*      *kanoosee*.  
yesterday   John-and   Mary-gen   came   probability  
‘the probability that John and Mary came (together) yesterday’  
(John and Mary > probability)  
‘the probability that John came and the probability that Mary came’  
(probability > John and Mary)

Takahashi argues that the relevant movement of the genitive subject must observe the Uniformity Corollary on Adjunction (UCA), which is defined in (80):<sup>15</sup>

(80) Uniformity Corollary on Adjunction (UCA):

Adjunction is impossible to a proper subpart of a uniform group, where a uniform group is a nontrivial chain or a coordination.

The following contrast in the applicability and inapplicability of NGC shows how the UCA works. Consider (81)a and (81)b:

(81)a. [ Oogoe-de Hanako-ga/no waratta toki ]-o oboeteiru.

[ loudly Hanako-nom/gen laughed time ]-acc remember

‘I remember the time when Hanako laughed loudly.’

b. [ Oogoe-de Hanako-ga/\*no waratta toki ] Taroo-ga naiteita.

[ loudly Hanako-nom/gen laughed time ] Taro-nom was crying

‘Taroo was crying when Hanako laughed loudly’

In (81)a, the genitive subject can be adjoined to the clausal object headed by *toki* ‘time’. The UCA is satisfied, since Takahashi assumes that objects in Japanese remain in situ. In (81)b, on the other hand, the genitive subject cannot be adjoined to the clausal adjunct, even though it is also headed by *toki*. In this case, the UCA is not satisfied, since Takahashi treats adjuncts (base-generated adjuncts, more precisely) and coordination as

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<sup>15</sup> Takahashi adopts the view that adjunction is what has traditionally been taken as substitution (cf. Chomsky 1994, Kayne 1994, Saito and Fukui 1998, etc.). Thus, A-movement of subjects to SpecTP, for example, is also subject to the UCA under Takahashi’s analysis.

basically the same, following Higginbotham (1985); adjunction to adjuncts is thus prohibited by the UCA defined in (80). Crucially, Takahashi points out that clausal subjects pattern with clausal objects rather than clausal adjuncts, in that they allow NGC, as shown in (82):

(82) [ Oogoe-de Hanako-ga/no waratta toki ]-ga Zyōn-nitotte itiban  
 [ loudly Hanako-nom/gen laughed time ]-nom John-for most  
 siawasena toki datta.  
 happy time was  
 ‘The time when Mary laughed loudly was the happiest time for John.’

Takahashi thus concludes that subjects in Japanese do not undergo overt movement to SpecTP (cf. Fukui 1986, Kuroda 1988, Lasnik and Saito 1992, etc.).<sup>16</sup>

If Takahashi’s analysis of NGC is on the right track, it seems plausible to regard the applicability and inapplicability of NGC as a new diagnostic test for determining whether overt movement is involved or not. On the basis of this test, let us consider whether the ECMed subject in Japanese allows NGC or not. It is predicted that NGC should be disallowed if the ECMed subject undergoes overt object shift, in parallel with (81)b, but not otherwise, on a par with (81)a. The well-formedness of (83) thus indicates that the ECMed subject has not undergone overt object shift:

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<sup>16</sup> We may need to assume that subjects in Japanese undergo covert movement to SpecT-CP for the sake of Case-valuation.

(83) Zyōn-wa [ oogoede Mearii-ga/no waratta toki ]-o itiban siawaseda to  
 John-top loudly Mary-nom/gen laughed time-acc most happy that  
 omotteiru.  
 is thinking  
 ‘John believed the time when Mary laughed loudly to be happiest.’

Now, I would like to come back to (71), repeated as (84), which shows that inverse scope between the existential quantifier and the universal quantifier is possible only when the embedded subject is ECMed:

(84)a. Dareka-ga minna-o<sub>i</sub> [ *t<sub>i</sub>* tensai da to ] omotteiru.  
 someone-nom everyone-acc [ genius is that ] be thinking  
 ‘Someone believes that everyone is a genius.’

(someone > everyone, everyone > someone)

b. Dareka-ga [ minna-ga tensai da to ] omotteiru.  
 someone-nom [ everyone-nom genius is that ] be thinking  
 ‘Someone believes that everyone is a genius.’

(someone > everyone, everyone > \*someone)

Recall that Tanaka (2002) gives (84)a as a piece of evidence that Japanese ECM involves overt object shift (see Tanaka 2002 for details of this analysis). Covert object shift, however, suffices for inverse scope in (78). However, recall that in principle, the ECMed subject in (84)a can scramble into the matrix clause. If the scrambling derivation were available here, then SOC would come into effect, making covert object shift irrelevant

since it states that a covert operation can create a new scope relation only if there is no overt operation that yields it (i.e. scrambling). In the present case, however, the scrambling option is not available, since it would involve string-vacuous scrambling, which is widely-held to be banned. Coupled with the discussion thus far that object shift of the ECMed subject in Japanese is not overt, I thus conclude that what is involved in (84)a and is responsible for inverse scope between the existential quantifier and the universal quantifier is covert object shift. One important prediction here is that if the scrambling operation that would be relevant to (84)a is rendered non-string-vacuous and hence in principle available by using a matrix adverb, it should allow inverse scope between the existential quantifier and the universal quantifier when the ECMed subject precedes the matrix adverb, whereas such inverse scope should not be available if the ECMed subject follows the matrix adverb. The prediction is borne out, as shown by the contrast between (85)a and (85)b:

(85)a. Dareka-ga minna-o<sub>i</sub> orokanimo [ *t<sub>i</sub>* tensai da to ] omotteiru.  
 someone-nom everyone-acc stupidly [ genius is that ] be thinking  
 ‘Someone stupidly believes that everyone is a genius.’

(someone > everyone, everyone > someone)

b. Dareka-ga orokanimo [ minna-o tensai da to ] omotteiru.  
 someone-nom stupidly [ everyone-acc genius is that ] be thinking  
 ‘Someone stupidly believes that everyone is a genius.’

(someone > everyone, everyone > \*someone)

The reason for the above contrast should be obvious. Since an overt operation like scrambling is available in (85)b (it in fact takes place in (85)a), covert object shift cannot create a new scope relation; it can create a new scope relation only if there is no overt operation that yields it. I therefore conclude that the scope facts from ECM construction provide further support for the covert object shift analysis of Japanese ECM.

A remaining issue needs to be discussed concerning examples like (86), repeated from Chapter 2. As discussed in Chapter 2, A-movement of *karera-o* into the matrix pre-subject position in (86)b may need to involve an intermediate step of A-movement in the middle field of the matrix clause, given the widely-held assumption that long-distance scrambling out finite clauses cannot involve A-movement:

- (86)a. ??Otagai-no<sub>i</sub>      sensee-ga      karera-o<sub>i</sub>    [ *t<sub>i</sub>*    tensai    da to ]    omotteiru.  
           each.other-gen    teacher-nom    they-acc                    genius    is    that    be thinking
- b. Karera-o<sub>i</sub>    otagai-no<sub>i</sub>            sensee-ga    *t<sub>i</sub>* [ *t<sub>i</sub>*    tensai    da to ]    omotteiru.  
           they-acc    each.other-gen    teacher-nom                    genius is    that    be thinking
- ‘Each other’s teacher believes that they are geniuses.’

What is relevant here is Bošković’s (1997a) claim, based on Superiority effects in several languages, that when a language normally has covert object shift of X, if X moves overtly to a position above the landing site of object shift, it will pass overtly through the object shift position on its way up. The scenario Bošković (1997a) is concerned with is exactly the issue we have raised above with respect to (86). Since *karera-o* is moving overtly to a position above the landing site of object shift in (86)b, it will then undergo overt object

shift on its way up, which means that the intermediate step of A-movement in the middle field of the matrix clause will involve object shift, which is overt in this particular case.

### **3.4 Conclusion**

In this chapter, I first provided an account of the scope facts in the Japanese potential construction based on the theory of phrase structure building and head excorporation proposed by Shimada (2007) and Tonoike (2009), on the basis of which Saito (2012) accounts for the data where a nominative object takes higher scope than the potential suffix, but an accusative object does not. On the basis of the data showing that the nominative object in the Japanese potential construction sometimes takes lower scope than the potential suffix, I claimed that head excorporation can create new scope relations, and that it is constrained by SOC, which is a reinterpretation of ScoT put forth by Bobaljik and Wurmbrand (2012) and Wurmbrand (2008, 2010). The SOC states that a covert operation can create a new scope relation only if there is no overt operation that can yield it. I then applied the proposed analysis to Japanese ECM. More specifically, considering both the data that show that the ECMed subject must stay in the embedded clause and does not undergo object shift (Hiraiwa 2001, 2005), and the data that show that the ECMed subject allows inverse scope with respect to the matrix subject, which seems to support the overt object shift analysis of the Japanese ECM (Tanaka 2002), I showed that all the data in question can be accounted for if the ECMed subject is in the lower clause overtly, but undergoes covert object shift, in accordance with the mechanisms proposed by Bošković (2007, 2008, 2011) and Saito (2012). The ECMed subject also has the option of scrambling into the matrix clause.

## Chapter 4

### Accusative NPs in Japanese

#### 4.1 Introduction

In this chapter, I extend the head excorporation theory sketched out in Chapter 3 to other constructions that involve an accusative subject or object. I first discuss Case-dropped accusative NPs; namely, bare NPs which should otherwise bear accusative. I claim that Case-drop is an operation that deletes the Case-marker at Transfer/Spell Out under adjacency with the verb. Next, I take up the topic of Double-*o* Constraint. Introducing two types of Double-*o* Constraint, the Surface Double-*o* Constraint (SDoC) and the Deep Double-*o* Constraint (DDoC), respectively, I claim that the V-*v* complex is in principle allowed to participate in multiple Case-valuation just like the T-C phase. Noting that the DDoC violation cannot be remedied even under the strategies effective for the SDoC violation, I arrive at the conclusion that there is a special syntactic mechanism that prevents an accusative CAUSEE from cooccurring with the accusative THEME, and provide an account of this. Finally, I consider why causative-potentials are allowed, but potential-causatives are disallowed. I attribute the contrast in question to the existence of an agentive  $\theta$ -role. I also analyze causative-potentials, in terms of Takahashi's (2010 2011) observation that the scope facts found in potentials are retained in causative-potentials. Finally, I discuss the interaction among potentials, causatives, and honorification, arguing that the external argument of the potential construction is non-agentive.



## 4.2 Case-drop as Deletion at Transfer under Adjacency

I have shown in Chapter 2 that the accusative Case-marker on the ECMed subject, which I have treated as a bare topic, cannot be dropped, as shown in (1)a, in contrast to the accusative object in (1)b:

- (1) a. Watasi-wa [ sono hito-o/\* $\emptyset$ , kinoo-no ziken-no hannin da to ]  
I-top that person-acc/\* $\emptyset$  yesterday-gen incident-gen culprit is that  
omotteiru.  
be thinking  
(lit.) ‘I believe that that person, (s/he) is the culprit of yesterday’s incident.’
- b. Watasi-wa sono hito-o/ $\emptyset$  sitteiru.  
I-top that person-acc/ $\emptyset$  know  
‘I know that person.’

Now, recall that I have assumed in Chapter 2 that the ill-formedness of (1)a is due to a violation of Bošković’s (1997b, 2002) Inverse Case Filter, which requires that traditional Case-assigners must assign their Case-feature.<sup>1</sup> It seems that this assumption is essentially correct, given the fact adverbs and PPs, which cannot be Case-marked as accusative in the non-ECM environment, must be Case-marked as accusative in the ECM environment, as shown by the b-examples in (2) through (5) (repeated from Chapter 2):

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<sup>1</sup> Recall also that I have argued there that the Inverse Case Filter should be somewhat weakened, in order to accommodate cases where *v* is present but does not assign the Case-feature. The relevant definition is repeated from Chapter 2:

(i) Traditional Case-assigners must assign their Case-feature *whenever possible in accordance with the PIC*.

- (2) a. Taroo-wa asita-(\*o) Nagoya-e iku  
 Taro-top tomorrow-(\*acc) Nagoya-to go  
 ‘Taro will go to Nagoya tomorrow.’
- b. Taroo-wa asita-\*(o) matidoosii to omotta.  
 Taro-top tomorrow-\*(acc) can hardly wait that thought  
 ‘Taro thought that he can hardly wait for tomorrow.’
- (3) a. Taroo-wa raiget-(\*o) Nagoya-e iku  
 Taro-top next month-(\*acc) Nagoya-to go  
 ‘Taro will go to Nagoya next month.’
- b. Taroo-wa raiget-\*(o) syoonenba da to omotteiru.  
 Taro-top next month-\*(acc) critical point is that is thinking  
 ‘Taro thought that he can hardly wait for tomorrow.’
- (4) a. Taroo-wa Nagoya-kara-(\*o) Matumoto-e kaeru.  
 Taro-top Nagoya-from-(\*acc) Matsumoto-to go back  
 ‘Taro will go back to Matsumoto from Nagoya.’
- b. Taroo-wa Nagoya-kara-\*(o) tooi to omotta.  
 Taro-top Nagoya-from-\*(acc) far that thought  
 ‘Taro thought that (the distance) from Nagoya is long.’

- (5) a. Taroo-wa Nagoya-made-(\*o) iku.  
       Taro-top Nagoya-to-(\*acc) go  
       ‘Taro will go to Nagoya.’
- b. Taroo-wa Nagoya-made-\*(o) tooi to omotta.  
       Taro-top Nagoya-to-\*(acc) far that thought  
       ‘Taro thought that (the distance) to Nagoya is long.’

A question arises; why it is possible to drop the accusative Case-marker on the direct object in (1)b. Suppose we assume that Case-drop is an operation that applies at Transfer or Spell Out, and is only carried out if the relevant NP is V-adjacent (cf. Saito 1983, 1985, etc.).<sup>2</sup> Consider, however, (6):<sup>3</sup>

- (6) Watasi-wa [ sono hito-o/\*Ø, neteiru to ] omotta.  
       I-top that person-acc/\*Ø sleeping that  
       (lit.) ‘I thought that that person, is sleeping.’

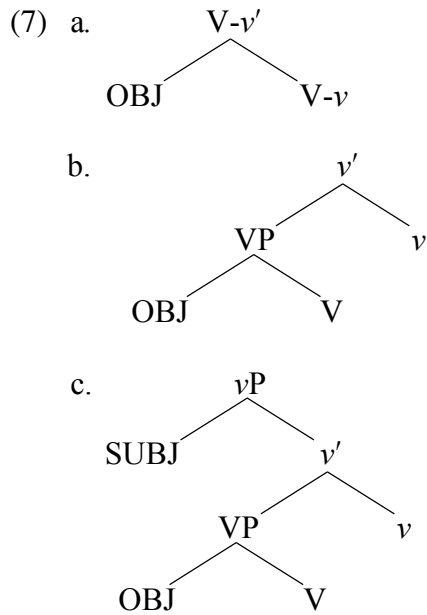
In (6), the ECMed subject is PF-adjacent to the embedded verb, but Case-drop is still not licensed. Given this observation, I conclude that the adjacency condition must hold between the Case-licensing verb and its object. Now, let us look at the derivation of (1).

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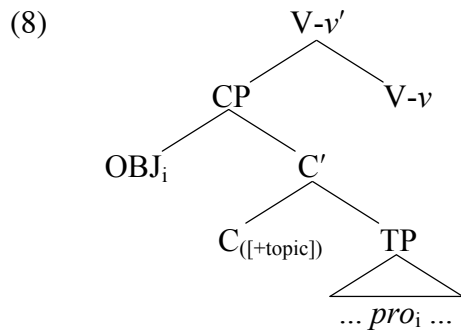
<sup>2</sup> Another possibility, suggested by Željko Bošković (personal communication) might be to assume that only object NPs that are inherently Case-marked as accusative can participate in Case-drop. However, I will claim, in reference to the discussion of causatives, that they also receive the structural accusative Case in overt syntax.

<sup>3</sup> I assume that the embedded clause in (6) involves an empty pronominal *pro* coindexed with the matrix subject. However, since *pro* is phonetically null, it does not interfere with the adjacency condition that holds between the verb and the ECMed subject.

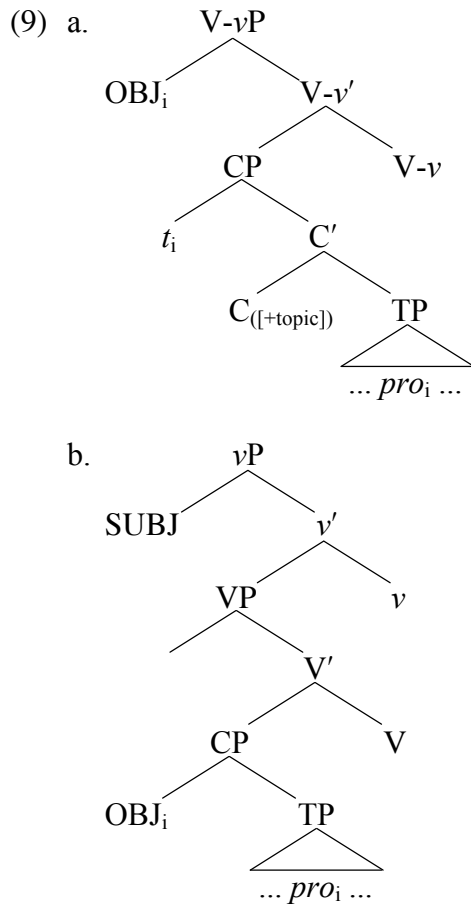
The direct object is in a Case-licensing configuration in the first merged position, as shown in (7):



The ECM subject is not in a Case-licensing configuration in its base position, given the discussion so far, in contrast to the simple transitive object.



The ECMed subject must move for Case-licensing reasons, which I have argued in Chapter 3 takes place covertly. It appears that at least in principle, the movement could take place as in (9)a or it could target  $vP$ , after the subject is merged in  $vP$ , as in (9)b:



Targeting  $vP$  for object shift in (9)b should be at least an option or the only possibility, given that the ECMed subject can take scope over the matrix subject, in contrast to simple transitive objects, as illustrated again in (10):

- (10) Dareka-ga minna-o<sub>i</sub> [ *t<sub>i</sub>* tensai da to ] omotteiru.  
 someone-nom everyone-acc [ genius is that ] be thinking  
 ‘Someone believes that everyone is a genius.’  
 (someone > everyone, everyone > someone)

I now turn to the Double-*o* Constraint.

#### 4.3 The Double-*o* Constraint: The Data

First, let us overview the DoC, a well-known constraint for accusative Case-marking in Japanese, noted by the pioneering literature such as Harada (1973), Inoue (1969, 1976), Kuroda (1965), Nakau (1971), and Shibatani (1973), among many others.

As is well-known, Japanese allows more than one nominative NP to appear in a sentence (cf. Kuno 1973, Kuroda 1987, Saito 1982, 1985, Shibatani 1977, 1978, Takezawa 1987, Ura 1996, 2000, etc.), as exemplified in (11):

- (11) Bunmeekoku-ga dansee-ga heekinzyumyoo-ga mizikai.  
 civilized country-nom men-nom average life time-nom short  
 ‘Men’s average lifetime is short in civilized countries.’

However, this is not the case with accusative NPs. In the examples (12) and (13), the possessor of the head and the subject of the study, respectively, which are in normal cases marked as genitive, cannot appear in accusative:

(12) a. Ken-ga Naomi-no atama-o tataita.

Ken-nom Naomi-gen head-acc hit

‘Ken hit Naomi’s head.’

b. ??Ken-ga Naomi-o atama-o tataita.

Ken-nom Naomi-acc head-acc hit

‘Ken hit Naomi on the head.’

(13) a. Ken-ga eego-no benkyoo-o sita.

Ken-nom English-gen study-acc did

b. ??Ken-ga eego-o benkyoo-o sita.

Ken-nom English-acc study-acc did

‘Ken studied English.’

We can see from (14)a and (15)a that *Naomi-gen head* and *English-gen study* can appear in a multiple nominative environment. (14)b and (15)b show that the possessors can also appear in non-genitive:

(14) a. Ken-ga Naomi-no atama-ga tatakeru.

Ken-nom Naomi-gen head-nom can hit

‘Ken can hit Naomi’s head.’

b. Ken-ga Naomi-ga atama-ga tatakeru.

Ken-nom Naomi-nom head-nom can hit

‘Ken can hit Naomi on the head.’

- (15) a. Ken-ga eego-no benkyoo-ga dekiru.  
           Ken-nom English-gen study-nom can do
- b. ?Ken-ga eego-ga benkyoo-ga dekiru.  
           Ken-nom English-nom study-nom can do  
           ‘Ken can study English.’

The observation above has led researchers such as Ura (1996, 2000) to conjecture that *v* in Japanese cannot enter into multiple feature-checking relations (i.e. cannot check accusative more than once; see also Hiraiwa 2000, 2001, etc.). However, this is not the end of the story; some examples of DoC considerably improve if two accusative NPs are separated by some distance (cf. Harada 1973), or one of the two accusative NPs is suppressed (i.e. phonetically unrealized). First, let us look at slightly modified examples from Harada (1973), which improve as a result of the application of cleft formation.<sup>4</sup> In (16)a, the nominal clause headed by *-tokoro* ‘when’ is adjacent to *Hanako-o*, an accusative NP. The example is excluded due to a DoC violation:

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<sup>4</sup> I glossed *no* in (16)b simply as ‘NO’, since the discussion of its categorial status is beyond the scope of this paper. See Kizu (1999), for example, for works treating *no* as a nominalizer.



(16) a. \*Taroo-ga Hanako-o [ gaisyutu suru tokoro ]-o tazuneta.

Taroo-nom Hanako-acc going out do when -acc visited

‘Taro visited Hanako when she was going out.’

b. Taroo-ga Hanako-o tazuneta no-wa [ gaisyutu suru tokoro ]-o

Taroo-nom Hanako-acc visited NO-top going out do when -acc

datta.

was

‘It was when Hanako was going out that Taro visited Hanako.’

I do not examine here whether Japanese cleft formation involves movement or not, tentatively assuming that it does. What is important for us is simply that the two accusative NPs are not linearly adjacent. Another strategy for circumventing a DoC violation, which involves syntactic movement, is scrambling, as discussed by Hale and Kitagawa (1976-1977) and Hiraiwa (2010b), and Sawada (2009):<sup>5</sup>

(17) a. Naomi-o Ken-ga atama-o tataita.

Naomi-acc Ken-nom head-acc hit

b. ??Atama-o Ken-ga Naomi-o tataita.

head-acc Ken-nom Naomi-acc hit

‘Ken hit Naomi on the head.’

---

<sup>5</sup> (17)b and (18)b are considerably degraded as compared to (17)a and (18)a. However, I am assuming here that the possessor of the head and the subject of the study, respectively, are raised to a position where they can be marked accusative. Given this assumption, it might be the case that the grammatical status of the examples in question is due to what has been regarded as a Proper Binding Condition (PBC) violation (a constituent from which another element is extracted cannot undergo further movement). For an alternative analysis of remnant movement in Japanese that dispenses with the PBC, see Hiraiwa (2002, 2010a), Takita (2009, 2010), etc.

- (18) a. Eego-o      Ken-ga      benkyoo-o      sita.  
          English-acc Ken-nom   study-acc   did
- b. ??Benkyoo-o   Ken-ga      Eego-o      sita.  
          study-acc      Ken-nom   English-acc   did  
          ‘Ken studied English.’

In (17) and (18), the two accusative NPs are not linearly adjacent, since there is another element in between them as a result of scrambling.

Now, let us look at the cases where one of the two accusative NPs is suppressed as a result of Case-drop, which improves the grammatical status of the relevant construction. Consider (19) and (20):

- (19) (?)Naomi-o      doko-Ø              tataita      no?  
          Naomi-acc      which part-Ø   hit      Q  
          ‘Which part of Naomi’s body did you hit?’

- (20) Eego-o              benkyoo-Ø      sita      no?  
          English-acc   study-Ø              did      Q  
          ‘Did you study English?’

In (19) and (20), one of the two accusative NPs appears as a bare NP (i.e. not Case-marked). As a result, these examples circumvent a violation of DoC, and are thus more acceptable than (12)b and (13)b.

Hiraiwa (2002, 2010b), Sawada (2009), and Shibatani (1978), among others, present additional data showing a similar kind of amelioration effect in DoC. Consider the data given in (21) and (22):

(21) a. Ken-ga Naomi-*mo/dake/sae/wa*<sub>i</sub> [ *e<sub>i</sub>* atama ]-o tataita.

Ken-nom Naomi-also/only/even/top head -acc hit

‘Ken also/only/even hit Naomi on the head.’

b. Ken-ga Naomi-o<sub>i</sub> [ *e<sub>i</sub>* atama ]-*mo/dake/sae/wa* tataita.

Ken-nom Naomi-acc head -also/only/even/top hit

‘Ken hit Naomi also/only/even on the head.’

(22) a. Ken-ga Eego-*mo/dake/sae/wa*<sub>i</sub> [ *e<sub>i</sub>* benkyoo ]-o sita.

Ken-nom English-also/only/even/top study -acc did

‘Ken studied also/only/even English.’

b. Ken-ga Eego-o<sub>i</sub> [ *e<sub>i</sub>* benkyoo ]-*mo/dake/sae/wa* sita.

Ken-nom English-acc study -also/only/even/top did

‘Ken also/only/even studied English.’

In these examples, one of the two accusative NPs is followed either by a focus particle such as *mo* ‘also,’ *dake* ‘only,’ and *sae* ‘even,’ or a topic particle *wa*. These particles have the effect of suppressing the accusative Case-marker (i.e. rendering the accusative Case-marker phonetically unrealized), and hence the relevant sentences are perfectly acceptable, as in the case of (19) and (20).

In sum, the above group of DoC violation can be rescued by other syntactic operations. Poser (2002) thus dubbed this group as involving the Surface Double-*o* Constraint (SDoC). Furthermore, these data, along with (19) and (22), have led Hiraiwa (2010b) to assume that SDoC is a morphophonological constraint; more specifically, two occurrences of accusative are in fact allowed, to the extent that they are not in the same Spell-Out domain at Transfer. In what follows, I basically follow Hiraiwa's (2010b) phase-theoretic mechanism for the SDoC, given as (23):<sup>6</sup>

(23) Multiple identical occurrences of the structural accusative Case value cannot be morphophonologically realized within a single Spell-Out domain at Transfer.

Now, let us turn to the other type of DoC, which is represented by the causative constructions given below as (24). These contrast sharply with (25) and (26), where either CAUSEE or THEME appears as accusative:

(24) \*Taroo-ga Hanako-o hon-o yomaseta.  
 Taro-nom Hanako-acc book-o made read  
 'Taro made Hanako read a book.'

(25) Taroo-ga Hanako-ni hon-o yomaseta.  
 Taro-nom Hanako-dat book-o made read  
 'Taro made Hanako read a book.'

---

<sup>6</sup> As I mention below, (23) is a constraint specific to Japanese. See e.g. Baker (1988) for instances where multiple occurrences of accusative NPs are allowed in Kinyarwanda.

(26) Taro-ga Hanako-o gakkoo-ni ikaseta.

Taro-nom Hanako-acc school-to made go

‘Taro made Hanako go to school.’

Significantly, this type of DoC does not improve even if one of the two accusative NPs are suppressed through the strategies adopted for SDoC. In the following examples, one of the two accusative NPs is suppressed; by the replacement with a bare NP in (27)a and (27)b, by null pronominalization (i.e. replacement with a *pro*) in (28),<sup>7</sup> and by relativization in (29):

(27) a. \*Taro-ga Hanako-o hon-Ø yomaseta.

Taro-nom Hanako-acc book-Ø made read

b. \*Taro-ga Hanako-Ø hon-o yomaseta.

Taro-nom Hanako-Ø book-acc made read

‘Taro made Hanako read a book.’

---

<sup>7</sup> (28)b allows two interpretations: one is where *pro* refers to the accusative CAUSEE (i.e. *Hanako-o*), and the other is where it refers to a dative CAUSEE (i.e. *Hanako-ni*). This example is ill-formed only under the former interpretation, because the DoC effect emerges only in this case. A similar case is found for (29)b; namely, it is ill-formed only under the interpretation where *e* refers to the accusative CAUSEE rather than the dative CAUSEE.

(28) a. \*Taroo-ga Hanako-o *pro* yomaseta.

Taro-nom Hanako-acc *pro* made read

‘Taro made Hanako read (a book).’

b. (\*)Taroo-ga *pro* hon-o yomaseta.

Taro-nom *pro* book-acc made read

‘Taro made (Hanako) read a book.’

(29) a. \*Taroo-ga Hanako-o  $e_i$  yomaseta  $hon_i$

Taro-nom Hanako-acc made read book

‘a book which Taro made Hanako read’

b. (\*)Taroo-ga  $e_i$  hon-o yomaseta  $Hanako_i$

Taro-nom book-acc made read Hanako

‘Hanako, whom Taro made Hanako read a book’

Also, in (30) given below, the two accusative NPs are separated by the intervening subject as a result of scrambling, just like (17) and (18) above; still, the examples are ungrammatical:

(30) a. \*Hanako-o Taroo-ga hon-o yomaseta.

Hanako-acc Taro-nom book-o made read

b. \*Hon-o Taroo-ga Hanako-o yomaseta.

book-o Taro-nom Hanako-acc made read

‘Taro made Hanako read a book.’

None of the strategies discussed above contribute to the improvement of these cases of DoC. Poser (2002) thus calls this sort of DoC Deep Double-*o* Constraint (DDoC), distinguishing it from SDoC.

The data in (11) and (17) through (22) seem to suggest that both nominative Case and accusative Case in principle can be valued more than once. Building on this observation, I assume that not only the T-C phase but also the V-*v* phase participates in multiple Case-valuation, as long as the Double-*o* Constraint, a language-particular constraint, is satisfied.

#### **4.4 Analysis**

To sum up, there are two types of DoC: the SDoC, which can be remedied by suppressing one of the two accusative NPs or separating them by clefting or scrambling, and the DDoC, which does not show any amelioration effects under these strategies. In order to deal with the above data, I adopt the Saito/Shimada/Tonoike-type excorporation theory, and demonstrate that the relation between Case-valuation and phasehood naturally follows from (31):

(31) A functional element can value Case only within one maximal projection.

Let us look at how (31) works with respect to the asymmetry between the Case-valuation of nominative, shown in (11) (repeated as (32)), and that of accusative, shown in (12) through (18) (repeated as (33) through (39)):

(32) Bunmeekoku-ga      dansee-ga    heekinzyumyoo-ga      mizikai.  
civilized country-nom    men-nom    average life time-nom    short  
‘Men’s average lifetime is short in civilized countries.’

(33) a. Ken-ga      Naomi-no    atama-o    tataita.  
Ken-nom    Naomi-gen    head-acc    hit  
‘Ken hit Naomi’s head.’

b. ??Ken-ga    Naomi-o      atama-o    tataita.  
Ken-nom    Naomi-acc    head-acc    hit  
‘Ken hit Naomi on the head.’

(34) a. Ken-ga      eego-no      benkyoo-o    sita.  
Ken-nom    English-gen    study-acc    did  
b. ??Ken-ga    eego-o      benkyoo-o    sita.  
Ken-nom    English-acc    study-acc    did  
‘Ken studied English.’

(35) a. Ken-ga      Naomi-no    atama-ga    tatakeru.  
Ken-nom    Naomi-gen    head-nom    can hit  
‘Ken can hit Naomi’s head.’  
b. Ken-ga      Naomi-ga    atama-ga    tatakeru.  
Ken-nom    Naomi-nom    head-nom    can hit  
‘Ken can hit Naomi on the head.’



(36) a. Ken-ga eego-no benkyoo-ga dekiru.

Ken-nom English-gen study-nom can do

b. ?Ken-ga eego-ga benkyoo-ga dekiru.

Ken-nom English-nom study-nom can do

‘Ken can study English.’

(37) a. \*Taroo-ga Hanako-o [ gaisyutu suru tokoro ]-o tazuneta.

Taroo-nom Hanako-acc going out do when -acc visited

‘Taro visited Hanako when she was going out.’

b. Taroo-ga Hanako-o tazuneta no-wa [ gaisyutu suru tokoro ]-o

Taroo-nom Hanako-acc visited NO-top going out do when -acc  
datta.

was

‘It was when Hanako was going out that Taro visited Hanako.’

(38) a. Naomi-o Ken-ga atama-o tataita.

Naomi-acc Ken-nom head-acc hit

b. ??Atama-o Ken-ga Naomi-o tataita.

head-acc Ken-nom Naomi-acc hit

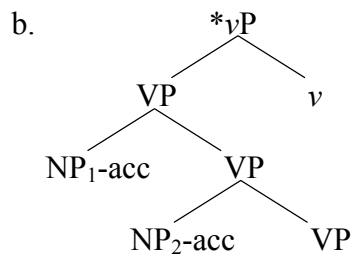
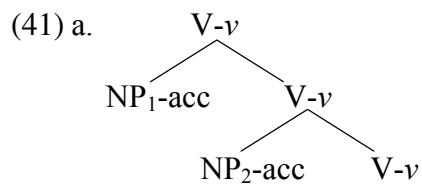
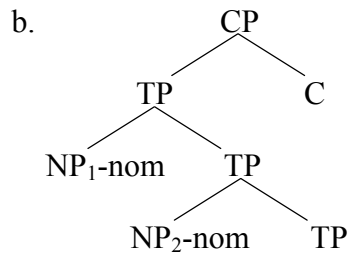
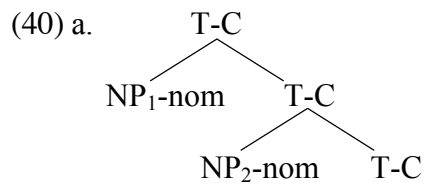
‘Ken hit Naomi on the head.’

- (39) a. Eego-o      Ken-ga      benkyoo-o      sita.  
          English-acc Ken-nom   study-acc   did
- b. ??Benkyoo-o   Ken-ga      Eego-o      sita.  
          study-acc      Ken-nom   English-acc   did  
          ‘Ken studied English.’

First, I assume that any kind of phase in Japanese can in principle participate in Case-valuation more than once, but there is a significant difference between the T-C phase and the V- $\nu$  phase; that is, the T-C phase is not subject to the counterpart of the Double-*o* Constraint, a constraint specific to Japanese, but V- $\nu$  (i.e.  $\nu$ ) is. Thus, the T-C phase can in principle host unlimited number of NPs for Case-valuation as nominative (as long as the sentence can be properly interpreted) until C excorporates and closes the CP phase, as illustrated in (40).<sup>8</sup> The same holds for V- $\nu$ , but the derivation must not end up in multiple identical occurrences of the structural accusative Case value, as in (41) (cf. (23)):

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<sup>8</sup> See Kuno (1973), Kubo (1992), Saito (1982, 1985, 2010a, b), among others; the matrix-initial nominative NP receives a special interpretation often referred to as exhaustive listing focus. In this sense, it might be the case that there is only one structural nominative Case in Japanese, and others are inherent Case. See Niinuma and Taguchi (2009) for details.



The ill-formed derivation illustrated in (41)b can be precluded if one of the accusative NPs is clefted, scrambled or phonetically suppressed, as shown above in (17) through (22), repeated below as (42) through (47):

(42) a. Naomi-o Ken-ga atama-o tataita.

Naomi-acc Ken-nom head-acc hit

b. ??Atama-o Ken-ga Naomi-o tataita.

head-acc Ken-nom Naomi-acc hit

‘Ken hit Naomi on the head.’

(43) a. Eego-o Ken-ga benkyoo-o sita.

English-acc Ken-nom study-acc did

b. ??Benkyoo-o Ken-ga Eego-o sita.

study-acc Ken-nom English-acc did

‘Ken studied English.’

(44) (?)Naomi-o doko-Ø tataita no?

Naomi-acc which part-Ø hit Q

‘Which part of Naomi’s body did you hit?’

(45) Eego-o benkyoo-Ø sita no?

English-acc study-Ø did Q

‘Did you study English?’

(46) a. Ken-ga Naomi-*mo/dake/sae/wa*<sub>i</sub> [ *e*<sub>i</sub> atama ]-o tataita.

Ken-nom Naomi-also/only/even/top head -acc hit

‘Ken also/only/even hit Naomi on the head.’

b. Ken-ga Naomi-o<sub>i</sub> [ *e*<sub>i</sub> atama ]-*mo/dake/sae/wa* tataita.

Ken-nom Naomi-acc head -also/only/even/top hit

‘Ken hit Naomi also/only/even on the head.’

(47) a. Ken-ga Eego-*mo/dake/sae/wa*<sub>i</sub> [ *e*<sub>i</sub> benkyoo ]-o sita.

Ken-nom English-also/only/even/top study -acc did

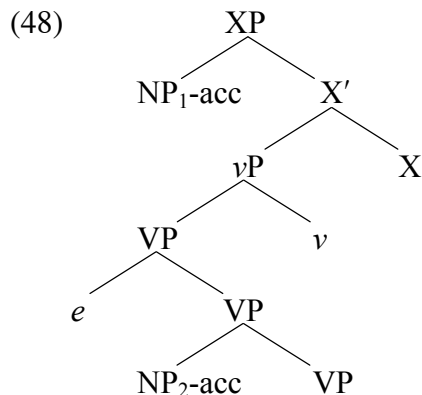
‘Ken studied also/only/even English.’

b. Ken-ga Eego-o<sub>i</sub> [ *e*<sub>i</sub> benkyoo ]-*mo/dake/sae/wa* sita.

Ken-nom English-acc study -also/only/even/top did

‘Ken also/only/even studied English.’

The derivation of (42) through (45) is illustrated in (48) below, where *e* stands for the trace of NP<sub>1</sub>-acc that has undergone clefting or scrambling to an XP, or the phonetically suppressed counterpart of NP<sub>1</sub>-acc:



Now, let us turn our attention to causatives. One of the important points relevant here is that the DDoC, namely, the DoC induced by causatives, must be ruled out independently of (23) (cf. (41)b and (48)). Given that the V-v phase is in principle allowed to participate in multiple Case-valuation, but nonetheless the amelioration effects found in the non-causative Double-*o* constructions are not observable in causatives, there should be a special mechanism that bars the cooccurrence of an accusative CAUSEE and an accusative THEME. For the sake of exposition, let us first assume, following Takahashi (2010, 2011), that the Case of the main verb in causative constructions is absorbed by the causative morpheme CAUS<sub>make</sub>.<sup>9</sup> Takahashi exemplifies this referring to the interaction between *-aseru* ‘make’ and *wakaru* ‘understand’. *Wakaru* takes a nominative object when it is used independently, as shown in (49)a. However, (49)b shows that the verb’s nominative assigning ability is overridden by the addition of *-aseru*, hence the direct object must be Case-marked as accusative. This means that *-aseru*, rather than *wakaru* Case-marks the direct object.

(49) a. Taro<sub>o</sub>-ga eego-?o/ga wakaru.

Taro-nom English-acc/nom understand

‘Taro understands English.’

b. Hanako-ga Taro<sub>o</sub>-ni eego-o/\*ga wakar-aseru.

Hanako-nom Taro-dat English-acc/nom understand-make

‘Hanako makes Taro understand English.’

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<sup>9</sup> See Nomura (2013) for an analysis of the causative construction where the Case-valuing ability of the verb is overridden by the causative morpheme, without recourse to Case absorption.

I extend to the current framework Takahashi's claim that the Case of the main verb in causative constructions is absorbed by CAUS<sub>make</sub>. More specifically, I propose, building on the head excorporation theory sketched out in Chapter 3, that the V-*v*-CAUS<sub>make</sub> complex head assigns the accusative Case to the THEME NP, but once the functional head *v*-CAUS<sub>make</sub> excorporates and projects another maximal projection, no further accusative Case-marking is possible for the functional head, in accordance with (31). This makes sure that the THEME NP can be Case-valued as accusative only in the first merged position when CAUSEE is dative, whereas the CAUSEE NP can be Case-valued as accusative only if the THEME NP is dative. Let us look at how it works.

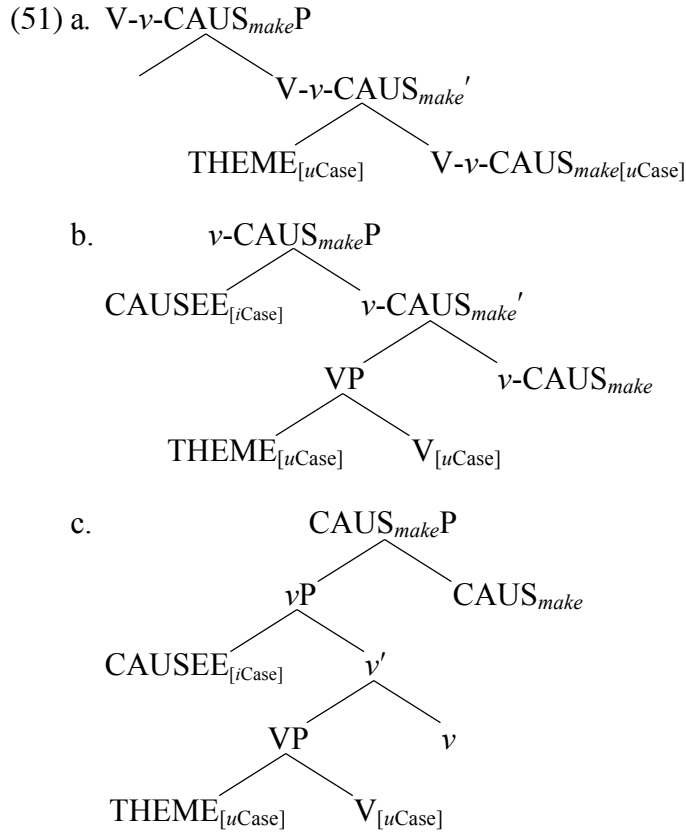
First, let us consider how (25), repeated as (50) below, is derived:

(50) Taroo-ga Hanako-ni hon-o yomaseta.

Taro-nom Hanako-dat book-o made read

‘Taro made Hanako read a book.’

The THEME NP that bears *u*Case is merged with the V-*v*-CAUS<sub>make</sub> complex head that also bears *u*Case, and gets Case-valued as accusative, as illustrated in (51)a. From this structure, the functional element *v*-CAUS<sub>make</sub> excorporates, as illustrated in (51)b. Since *v* in the complex head in (51)b needs the external argument (i.e. the agent of the action denoted by the verb, which is ultimately interpreted as the causee), CAUSEE is merged in Spec*v*-CAUS<sub>make</sub>P. In accordance with (31), CAUSEE has no choice but to get Case-valued as inherent dative, since the functional element *v*-CAUS<sub>make</sub> no longer has the ability to value the accusative Case. The final step for deriving (50) is illustrated in (51)c, where CAUS<sub>make</sub> excorporates:



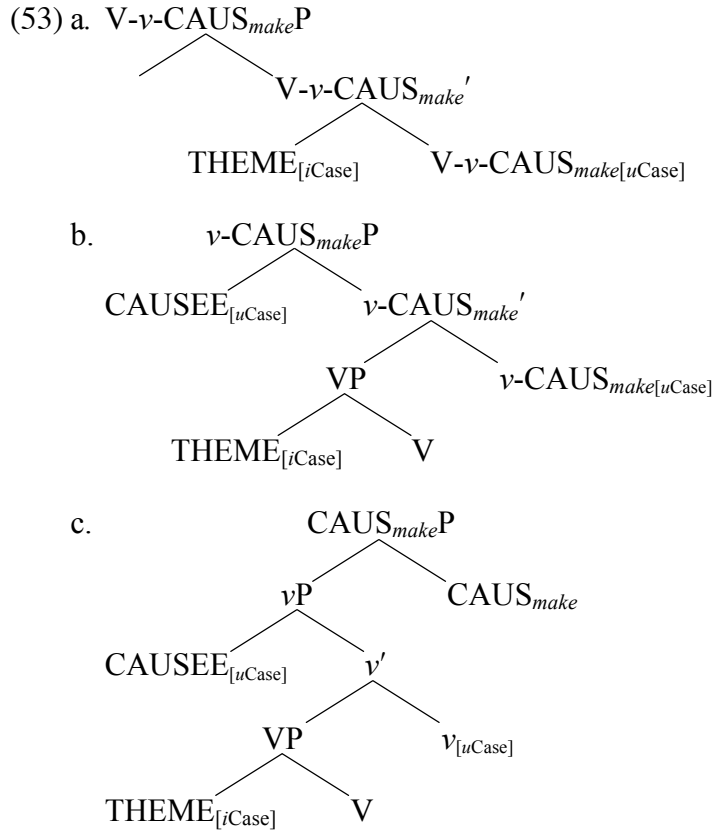
Next, let us consider how (26), repeated below as (52) is derived:

- (52) Taroo-ga Hanako-o gakkoo-ni ikaseta.  
 Taro-nom Hanako-acc school-to made go  
 ‘Taro made Hanako go to school.’

The THEME NP (the GOAL NP, more precisely) is inherently Case-marked as dative, hence does not bear  $uCase$  in this example. Here again, the THEME NP is merged with  $V-v-CAUS_{make}$  complex head that bears  $uCase$ , but no Case-valuation takes place, since the Case of the THEME NP is already valued and hence is interpretable, as illustrated in (53)a. From this structure, the functional element  $v-CAUS_{make}$  excorporates, as illustrated

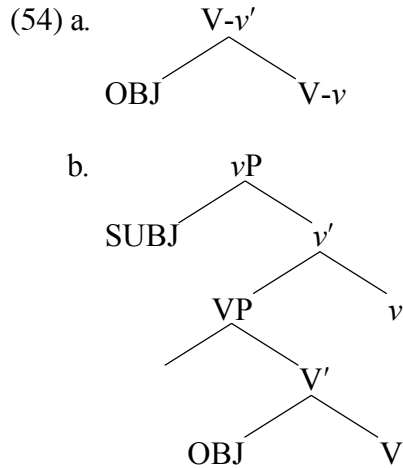


in (53)b.  $v$  in (53)b also needs CAUSEE and it is merged in Spec $v$ -CAUS<sub>make</sub>P. What is crucial in (53)a is that  $u$ Case on the V- $v$ -CAUS<sub>make</sub> complex head is not valued, and thus the functional element  $v$ -CAUS<sub>make</sub> retains the ability to Case-value CAUSEE as accusative, in accordance with (31). Given Bošković's (2007, 2011) system of Case-valuation, CAUSEE is successfully allowed to get Case-valued as accusative, since it c-commands the head capable of valuing accusative Case. Finally, as illustrated in (53)c, the CAUS<sub>make</sub> head exorporates:



To summarize, I have demonstrated that the distribution of dative/accusative THEME and dative/accusative CAUSEE can be accounted for under Saito's (2012)

excorporation theory coupled with (31). Note also that (31) prevents  $v$  from assigning the accusative Case to the subject of simple transitives, as in (54):

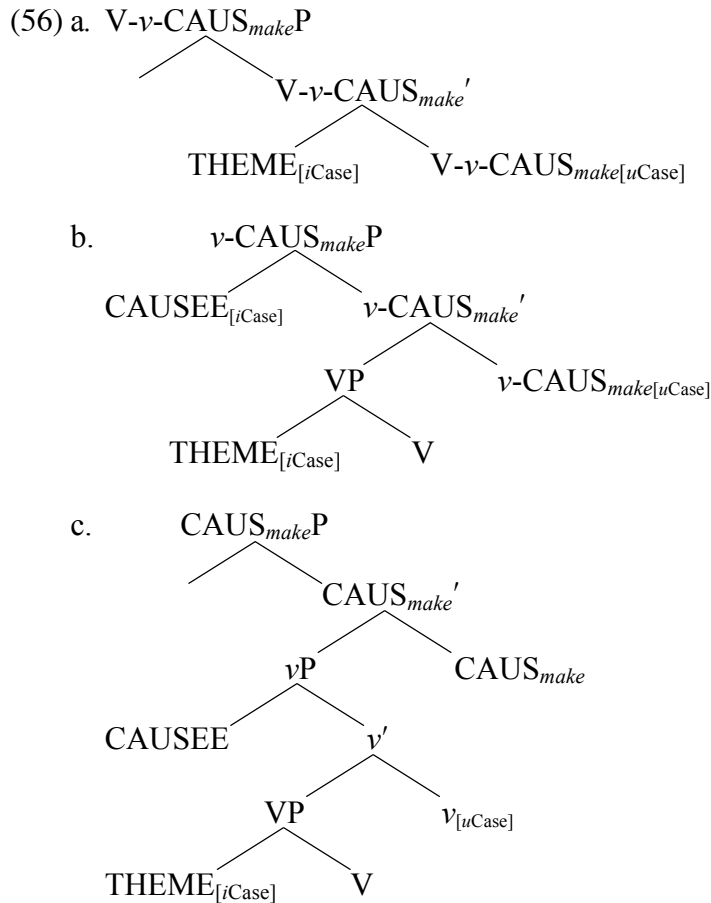


One may wonder, however, what happens when both THEME and CAUSEE are marked as dative, as shown in (55):

- (55) %Taroo-ga Hanako-ni gakkoo-ni ikaseta.  
 Taro-nom Hanako-dat school-to made go  
 ‘Taro made Hanako go to school.’

The derivation under the current framework is as follows. First, the THEME NP is merged with the  $V-v\text{-CAUS}_{make}$  complex head that bears  $u\text{Case}$ , but it is inherently Case-marked as dative, and hence does not bear  $u\text{Case}$ . Just as in the case of (53)a, no Case-valuation takes place at this point, as illustrated in (56)a. From this structure, the functional element  $v\text{-CAUS}_{make}$  excorporates, as illustrated in (56)b. Here again,  $v$  in (56)b needs the external argument, namely, CAUSEE and it is merged in Specv-

CAUS<sub>make</sub>P. *u*Case on the V-*v*-CAUS<sub>make</sub> complex head in (56)a remains unvalued, since the Case of CAUSEE is inherent Case and thus has already been valued. Finally, the CAUS<sub>make</sub> head exorporates, as illustrated in (56)c:



Note crucially that the derivation illustrated in (56) is predicted to be ill-formed, if the *u*Case on the *v*-CAUS<sub>make</sub> complex head is something that somehow needs to be checked. The question is what the grammatical status of (55) is. Hiraiwa (2010b) and Poser (2002) report that examples like (55) are well-formed, but according to Seiichi Sugawa (personal communication), they are extremely degraded for some speakers, but not for all speakers. I suspect that this sort of idiolectal variation is expected, if one of the following two

assumptions is correct. One is to assume that for those speakers who accept (55) as well-formed, the *u*Case on heads are valued and can be deleted without checking, as proposed in Bošković (2011). If this analysis is tenable, the apparently offending *u*Case on *v* in (56)c is not a troublemaker for those speakers who accept (55) as well-formed, but it is for those who reject the example as ill-formed. The other assumption I have in mind is that the idiolectal variation in question is due to the availability and unavailability of the dative NP as a quirky subject here. Nomura (2013) in fact assumes that the dative Case on CAUSEE results from the movement from the base-generated position (i.e. the Spec of the embedded *v*), where it is assigned a structural accusative Case, to the derived position (i.e. the internal argument position of *-aseru*), where it is  $\theta$ -marked and gets assigned inherent Case. If this analysis is tenable, the offending *u*Case on *v* in (56)c is actually checked and does not cause any trouble for those speakers who accept (55) as well-formed. However, such a derivation is unavailable for those who reject the example as ill-formed (in fact, some constructions with a quirky dative subject are totally disallowed).

#### **4.5 Causative-Potentials vs. Potential Causatives**

In this section, I would like to take up the question of why causative-potentials are allowed but potential-causatives are not allowed in Japanese, and how the scope facts found in causative-potentials are captured in terms of the excorporation theory I am pursuing here. An example of a causative-potential (57)a and a potential-causative (57)b

sharply contrast with (58)a and (58)b, which are causative-passives and passive-causatives, respectively.<sup>10</sup>

(57)a. Taroo-ga hebi-ni kaeru-o nomikom-aser-areru.

Taro-nom snake-dat frog-acc swallow-make-can

‘Taro can make a snake swallow a frog.’

b. \*Taroo-ga hebi-ni kaeru-o nomikom-e-saseru.

Taro-nom snake-dat frog-acc swallow-can-make

‘Taro makes a snake able to swallow a frog.’

(58)a. Taroo-ni hebi-ga kaeru-o nomikom-aser-areta.

Taro-dat frog-acc snake-dat swallow-made-pass

‘A snake was made to swallow a frog by Taro.’

b. Taroo-ga kaeru-o hebi-ni nomikom-are-saseta.

Taro-nom frog-acc snake-dat swallow-pass-made

‘Taro makes a frog swallowed by a snake.’

One may argue that the contrast between (57)b and (58)b is simply due to the problem of stativity; namely, only non-stative predicates, including passives in (58), can be causativized. However, the well-formedness of (59) tells us that this is not the case; even stative verbs such as *wakaru* found in (49) can in fact participate in causativization:

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<sup>10</sup> Note that the potential morpheme and the passive morpheme are homophonous in some cases, making it difficult to make a semantic distinction between (57)a and (58)a:

- (59) Hanako-ga Taro-ni eego-o wakar-aseru.  
 Hanako-nom Taro-dat English-acc understand-make  
 ‘Hanako makes Taro understand English.’

The question then is where the ill-formedness of (57)b comes from. As a potential answer to the question, I assume that what determines the compatibility with causatives is the agentivity of the external argument of the complement. More concretely, I am proposing here that the CAUSEE  $\theta$ -role consists of AGENT, which is assigned by  $v$ , and THEME/PATIENT, which is assigned by  $\text{CAUS}_{\text{make}}$ . The ill-formedness of (57)b then follows because the external argument of the complement (i.e. the potential construction) of the causative construction is non-agentive, and thus  $\text{CAUS}_{\text{make}}$  fails to assign the CAUSEE  $\theta$ -role to the external argument.<sup>11,12</sup> A piece of supporting evidence for my proposal is the fact that agentive verbs cooccur with volitional expressions such as *-(y)ootosuru* ‘try to do’ and *-tagaru* ‘want to do’, as shown in (60) and (62), regardless of whether the verb involved is a transitive verb with an accusative THEME (the a-examples), or an intransitive verb with the dative THEME/GOAL (the b-examples):<sup>13</sup>

<sup>11</sup> I take  $\theta$ -Criterion to be one-way conditional, and assume that an argument may be assigned multiple  $\theta$ -roles, but a  $\theta$ -role assigner must assign at least one  $\theta$ -role (cf. Bošković 1994).

<sup>12</sup> A potential counterexample to the current analysis, provided by Mamoru Saito (personal communication), is given in (i), where the verb *maiagaru* ‘soar up’ is non-agentive:

(i) Taro-ga huusen-o sora-ni takaku maiagar-asetu.  
 Taro-nom balloon-acc sky-dat high soar up-made  
 ‘Taro made the balloon soar up high into the sky.’

Based on (i), I tentatively assume here that the constraint that the external argument of the complement of causatives must be agentive is limited to coercive causatives and not applicable to permissive causatives like (i).

<sup>13</sup> Basically, *-tagaru* is used for third person, and for first and second person, *-tai* is used instead. Since the subjects in the examples in question are third person, I use *-tagaru* rather than *-tai*.

(60) a. Hanako-ga hon-o yom-ootosuru.

Hanako-nom book-o read-try to do

‘Hanako tries to read a book.’

b. Hanako-ga gakkoo-ni ik-ootosuru.

Hanako-nom school-to go-try to do

‘Hanako tries to go to school.’

(61) a. Hanako-ga hon-o yomi-tagaru.

Hanako-nom book-o read-want to do

‘Hanako wants to read a book.’

b. Hanako-ga gakkoo-dat iki-tagaru.

Hanako-nom school-dat go-want to do

‘Hanako wants to go to school.’

This holds even for passives, as long as THEME/PATIENT promoted to the subject is (rather abnormally) interpreted with the volition of the action denoted by the verb, as shown in (62) and (63):

(62) Kaeru-ga hebi-ni nomikom-are-yootosuru.

frog-nom snake-dat swallow-pass-try to do

‘A frog tries to be swallowed by a snake.’

(63) Kaeru-ga hebi-ni nomikom-are-tagaru.

frog-nom snake-dat swallow-pass-want to do

‘A frog wants to be swallowed by a snake.’

One may argue against the agentivity-based account, noting that the external argument of *wakaru* is an experiencer rather than an agent, but can be selected by the causative construction, as shown in (49)b. A crucial fact to be noted here is that even *wakaru* in (49) cooccurs with *-(y)ootosuru* and *-tagaru*, as shown in (64) and (65), respectively:<sup>14</sup>

(64) Taro-ga eego-o wakar-ootosuru.

Taro-nom English-acc understand-try to do

‘Taro tries to understand English.’

(65) Taro-ga eego-o wakari-tagaru.

Taro-nom English-acc understand-want to do

‘Taro wants to understand English.’

I thus conclude that there are two types of experiencer  $\theta$ -roles: one is a non-agentive experiencer, and the other is an agentive experiencer. I also claim that only the agentive experiencer is compatible with coercive causatives. This is reinforced by the examples in

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<sup>14</sup> Verbs that are incompatible with *-(y)ootosuru* and *-tagaru* include change-of-state verbs such as *kawaku* ‘dry’, *kireru* ‘cut’, *tokeru* ‘melt’, and so on. Note that all these verbs are incompatible with the causative morpheme as well, but they have transitive or lexical-causative counterparts (cf. *kawakasu* ‘cause to dry’, *kiru* ‘cut’ (transitive), *tokasu* ‘cause to melt’). Verbs like *koboreru* ‘spill’, *kusaru* ‘go rotten’, and *wareru* ‘break’ are incompatible with *-(y)ootosuru* and *-tagaru*, but compatible with causative. However, causative expressions with these verbs imply permission rather than coercion. Here, I take the permissive causative expressions out of consideration.



(66) and (67), where potentials are incompatible with *-(y)ootosuru* and *-tagaru*, respectively. This supports the idea that the experiencer external argument of the potential construction is non-agentive.

(66) \*Hebi-ga kaeru-o nomikom-e-yootosuru.

snake-nom frog-acc swallow-pot-try to do

‘A snake tries to be able to swallow a frog.’

(67) \*Hebi-ga kaeru-o nomikom-e-tagaru.

snake-nom frog-acc swallow-pot-want to do

‘A snake wants to be able to swallow a frog.’

Before concluding this chapter, let us confirm that the excorporation theory I am pursuing here correctly predicts that the scope facts observed in potentials are retained in the causative-potential construction (cf. Takahashi 2010, 2011). Consider (68), repeated from Chapter 2:

(68) a. Zyon-ga migime-dake-ga tumur-eru.

John-nom right-eye-only-nom close-can

‘John can close only his right eye.’

(only > can, can > only)

b. Zyon-ga migime-dake-o tumur-eru.

John-nom right eye-only-acc close-can

‘John can close only his right eye.’

(can > only, \*only > can)

In (68)a, the object *migime-dake* ‘right-eye-only’ is Case-marked as nominative, and takes either higher or lower scope than the potential suffix *-(ar)eru*. In (68)b, on the other hand, the object *migime-dake* is Case-marked as accusative, and only takes lower scope than the potential suffix. Recall that the contrast between (68)a and (68)b is explained under the excorporation theory with respect to what kind of phase the direct object is merged with. Also recall Saito’s (2012) claim that (68)a is a case where the direct object is merged with the T-C phase head (the V-POT<sub>can</sub>-v-T-C complex head, more specifically), and hence the direct object and POT<sub>can</sub> are in a mutual c-command relation, allowing them to take scope over each other.<sup>15</sup> (68)b is a case where the direct object is merged with and gets Case-valued as accusative by the V-v phase, and hence cannot take scope over POT<sub>can</sub>, which is merged with the T-C phase that is structurally much higher than the V-v phase. One of the crucial points is that Saito assumes that POT<sub>can</sub> is merged with the T-C phase. I essentially follow Saito in this respect, but assume that CAUS<sub>make</sub> is merged with the V-v phase in some cases, as is already illustrated in (51) through (53), but it is merged with the T-C phase in other cases. This assumption seems to be justified by two empirical facts. One is that when CAUSEE is Case-marked as accusative, the direct object can never be Case-marked as nominative, as shown in (69)a. The other is that when CAUSEE is not Case-marked as accusative, the direct object can be Case-marked as nominative, as shown in (69)b:

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<sup>15</sup> Recall also that POT<sub>can</sub>, v, T, and C, respectively, undergo covert excorporation, retaining the configuration formed in the initial merger.

(69) a. \*Hanako-ga Zyon-o migime-ga tumur-aser-areru.

Hanako-nom John-acc right-eye-nom close-caus-can

‘Hanako can make John close his right eye.’

b. Hanako-ga Zyon-ni migime-ga tumur-aser-eru.

Hanako-nom John-dat right eye-acc close-caus-can

‘Hanako can make John close only his right eye.’

Under the head excorporation theory, the ill-formedness of (69)a is straightforward; namely, the direct object, which is merged lower than CAUSEE, should not be able to be Case-marked as nominative by the T-C phase, if CAUSEE is Case-marked as accusative by the V-v phase.

Let us now turn our attention to how the scope interaction between the potential suffix and the nominative/accusative direct object is retained under the analysis proposed thus far. The relevant data are given in (70):

(70) a. Hanako-ga Zyon-ni migime-dake-ga tumur-aser-areru.

Hanako-nom John-dat right-eye-only-nom close-caus-can

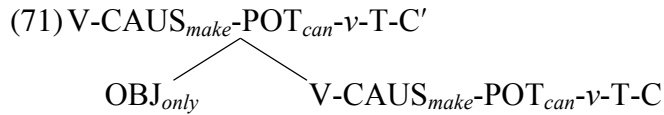
‘Hanako can make John close only his right eye.’ (only > can, can > only)

b. Hanako-ga Zyon-ni migime-dake-o tumur-aser-eru.

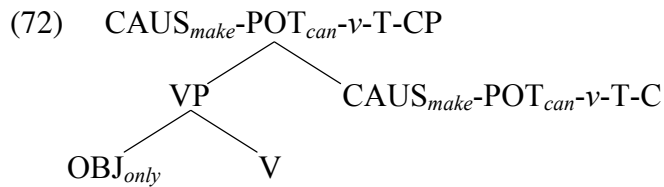
Hanako-nom John-dat right eye-only-acc close-caus-can

‘Hanako can make John close only his right eye.’ (can > only, \*only > can)

Under my analysis, CAUS<sub>make</sub> is merged with the T-C phase in (70)a, since the direct object is Case-marked as nominative. In other words, both CAUS<sub>make</sub> and POT<sub>can</sub> are merged pairwise with the T-C phase, as illustrated in (71):



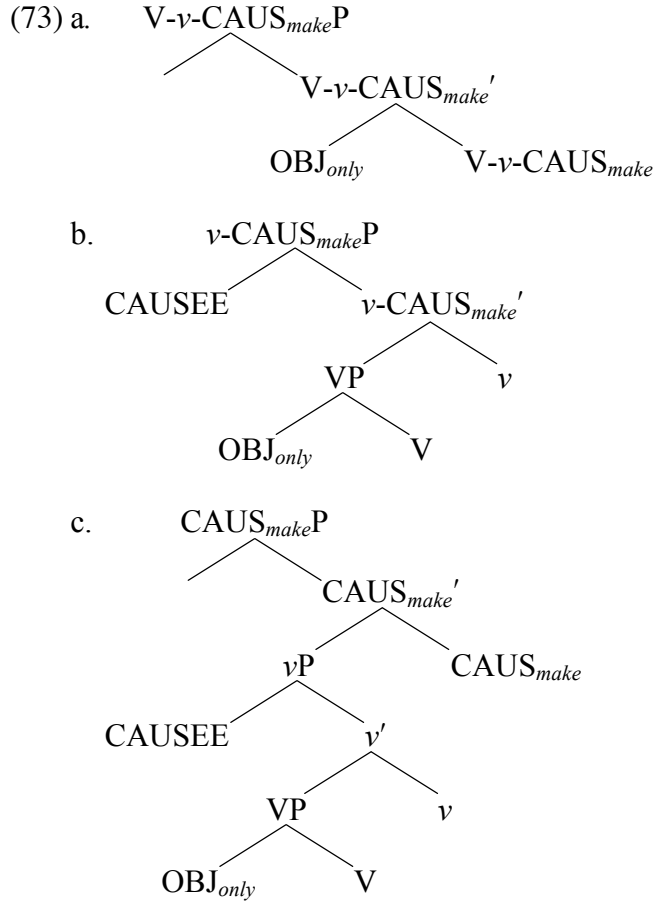
From the structure given in (71), the CAUS<sub>make</sub>-POT<sub>can</sub>-v-T-C complex head excorporates, stranding the direct object and V, allowing them to project VP, as illustrated in (72):



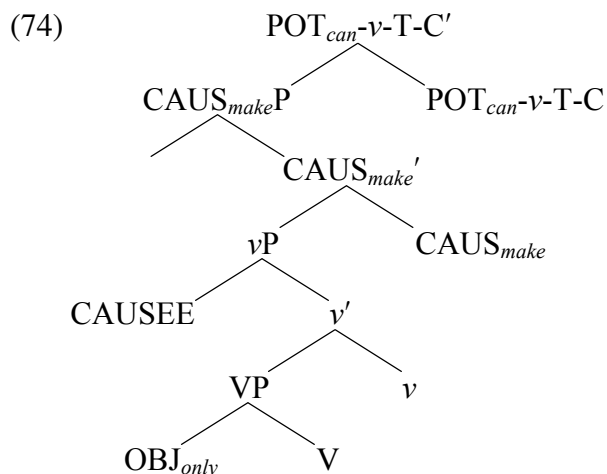
Recall, however, that the relevant head excorporation is covert under Saito's (2012) analysis, so that the scope interaction between POT<sub>can</sub> and the direct object is determined at the point of (71), allowing the nominative direct object to take scope over POT<sub>can</sub>. Note that the reading where the nominative direct object takes scope under POT<sub>can</sub> is also available, given my proposal in Chapter 3 that covert excorporation can create a new scope relation if there is no overt operation that yields it.

Next, let us consider the case where the direct object is Case-marked as accusative. Under my analysis, CAUS<sub>make</sub> is merged with the V-v phase in this case, and the direct object is merged with the V-v-CAUS<sub>make</sub> complex head, as illustrated in (73)a. From (73)a, the v-CAUS<sub>make</sub> complex head excorporates, forming (73)b, and θ-marks the

element in the Spec (i.e. CAUSEE (AGENT + THEME/PATIENT)). Finally,  $CAUS_{make}$  undergoes excorporation, as illustrated in (73)c:



It should be noted that even at the stage where the  $CAUS_{make}P$  in (73)c is merged with the  $POT_{can}-v-T-C$  complex head, as illustrated in (74),  $OBJ_{only}$  cannot take scope over  $POT_{can}$ , which is structurally too high:

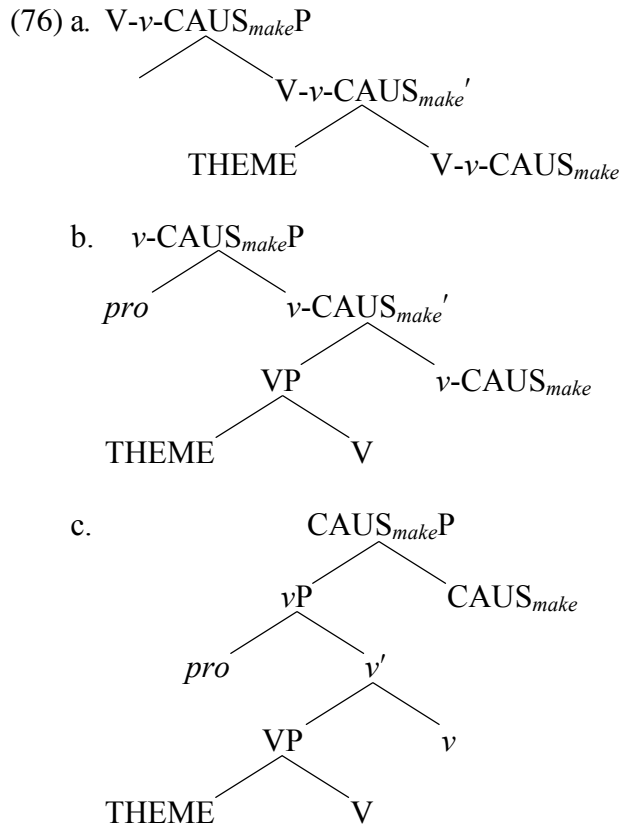


Note also that in the derivation depicted in (73), it is guaranteed that CAUSEE never appears in the accusative Case, given (31).

Also to be noted is the fact that in the causative-potential construction, CAUSEE can be Case-marked as either nominative or accusative, when the THEME NP (the GOAL NP, more precisely) appears in the dative Case. Importantly, the scope interaction between CAUSEE and the potential suffix is what is expected under the excorporation theory; namely, the nominative CAUSEE can take scope either over or under the potential suffix, but the accusative CAUSEE only takes scope under the potential suffix, as shown in (75):

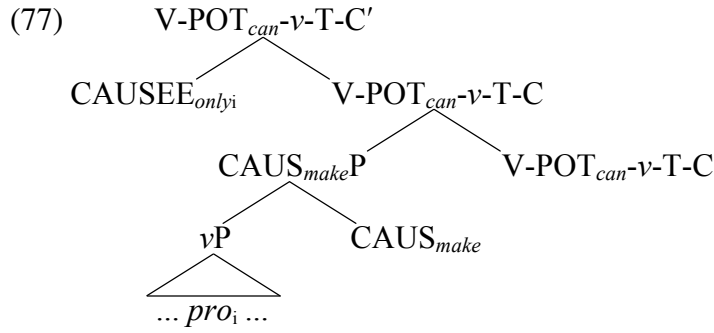
- (75) a. Hanako-ga    Zyon-dake-ga    gakkoo-ni    ik-aser-areru.  
          Hanako-nom   John-only-nom   school-dat   go-caus-can  
          ‘Hanako can make only John go to school.’                    (only > can, can > only)
- b. Hanako-ga    Zyon-dake-o    gakkoo-dat    ik-aser-eru.  
          Hanako-nom   John-only-acc   school-to    go-caus-can  
          ‘Hanako can make only John go to school.’                    (can > only, \*only > can)

Let us assume that the nominative CAUSEE in (75)a is base-generated in the T-C phase, and the agentivity requirement on the  $v$ -CAUS<sub>make</sub> complex head is satisfied by *pro*, which is coindexed with CAUSEE.<sup>16</sup> (76), given below, is the derivation of the V- $v$  phase with the CAUS<sub>make</sub> head of (75)a, which is identical with (53) except that the agent, which eventually interpreted as CAUSEE, is realized as *pro*:



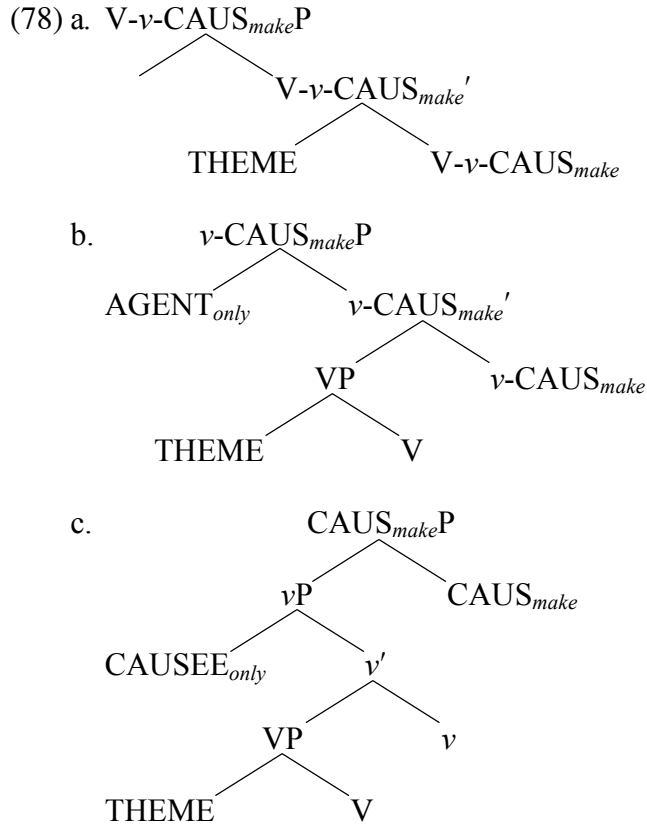
The CAUS<sub>make</sub>P derived in (76)b is then merged with the V-POT<sub>can-v-T-C</sub> complex head, with the result that CAUSEE is Case-valued as nominative, as illustrated in (77):

<sup>16</sup> I am treating the nominative CAUSEE as a kind of ECMed subject. Recall that I have been assuming that (some of) the ECMed subjects are base-generated in the embedded SpecCP, and *pro* coindexed with it occupies the  $\theta$ -position (cf. Chapter 2 and 3). The only difference here is that CAUSEE is merged with a complex head that is capable of valuing nominative Case.

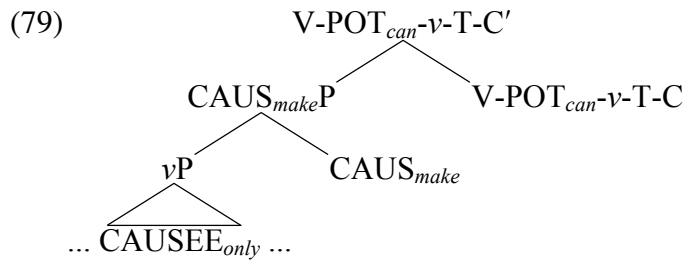


Note that in (77), CAUSEE and the V-POT<sub>can</sub>-v-T-C complex head are in a mutual c-command relation, making it possible for CAUSEE to take scope either over or under POT<sub>can</sub>. Recall also that the POT<sub>can</sub> head excorporates in a later step in the derivation. Let us now consider how (75)b is derived. One of the crucial differences from the case in (75)a is that CAUSEE in (75)b is directly merged with and gets Case-valued as accusative by the v-CAUS<sub>make</sub> complex head, as illustrated in (78):





The  $CAUS_{make}P$  derived in (78)c is further merged with the  $V-POT_{can}-v-T-C$  complex head, as illustrated in (79):



As is easily verified, CAUSEE in (79) does not c-command, hence cannot take higher scope than the potential suffix. Thus, the current theory captures the scope interaction between the nominative CAUSEE and the potential suffix and that between the

accusative CAUSEE and the potential suffix in the causative-potential construction, without recourse to QR, a covert operation that exclusively applies for scope reasons.

## 4.6 Potentials, Causatives, and Honorification

In 4.5, I claimed that the external argument of the potential construction is non-agentive. In this section, I show that this claim is correct, on the basis of the interaction between the potential construction and honorification.

### 4.6.1 Unaccusative Verbs and Subject Honorification

First of all, let us consider what grammatical function the external argument of the potential construction bears. Ura (1999, 2000) maintains that the dative external argument in the potential construction is a subject. His argument hinges on three diagnostics. The first test concerns Binding Condition A; whether the dative subject can bind the subject-oriented anaphor *zibun* ‘self’.<sup>17</sup> (80) is well-formed under the intended interpretation where the subject *Taroo* and the reflexive *zibun* are coreferential:

(80) *Taroo-ni<sub>i</sub> zibun-de<sub>i</sub> eego-ga hanas-eru.*

Taro-dat self-by English-nom speak-can

‘Taro can speak English by himself.’

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<sup>17</sup> The following example from Kuno (1973) shows that *zibun* is subject-oriented:

(i) *Taroo-ga<sub>i</sub> Hanako-o zibun-no<sub>i/\*j</sub> uti-de korosita.*  
 Taro-nom Hanako-acc self-gen house-at killed  
 ‘Taro killed Hanako in his/\*her house.’

The second test examines whether the dative external argument can control a missing subject of adjunct subordinate clauses; in other words, the issue is whether PRO can be interpreted as referring to the matrix dative external argument *Taroo* in (81).<sup>18</sup> The well-formedness of (81) under the relevant interpretation shows that *Taroo* is a subject:

- (81) [ PRO<sub>i</sub> tanosimi-nagara ], Taroo-ni<sub>i</sub> eego-ga hanas-eru.  
 enjoy-while Taroo-dat English-nom speak-can  
 ‘While enjoying, Taro can speak English.’

Finally, (82) shows that the dative phrase induces subject honorification, in accordance with Harada’s (1976b) characterization of it given in (83). Importantly, Ura assumes that subject honorification involves agreement between the subject and T mediated by  $\phi$ -features. This means that the dative external argument *Yamada sensee* ‘Prof. Yamada’ is a subject which enters into an Agree relation with T, just like nominative subjects normally do.<sup>19</sup>

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<sup>18</sup> The following example shows that only subjects can control missing subjects of adjunct subordinate clauses in Japanese:

(i) [ PRO<sub>i/\*j</sub> nihongo-ni yakusi-nagara ], Taroo-ga<sub>i</sub> Hanako-ni<sub>j</sub> eego-o hanasi-ta.  
 Japanese-into translate-while Taroo-nom Hanako-dat English-acc speak-past  
 ‘While translating into Japanese, Taro spoke to Hanako in English.’

<sup>19</sup> SH stands for the subject honorific marker. Note also that there are some differences in the characterization of subject honorification in the literature. For Shibatani (1977), for example, subject honorification is an instance of subject-verb agreement, and for Boecx and Niinuma (2004) and Niinuma (2003), it is a result of an Agree relation that holds between T and the subject mediated by the [+human] feature (cf. Bobaljik and Yatsushiro 2006 for an opposing view). However, these differences do not affect the current discussion; what is crucial is whether the dative external argument enters into a certain kind of a feature checking relation with T, which is typical of nominative subjects.

(82) Yamada sensee-ni eego-ga o-hanasi-ninar-eru.

Yamada teacher-dat English-nom SH-speak-SH-can

‘Prof. Yamada can speak English.’

(83) Subject Honorific Marking:

Mark the predicate as [Subject Honorific] if its subject is an SSS (a person who is socially superior to the speaker). (Harada 1976b: 517)

The question is whether the subject status of the external argument in (80) through (82) is associated with the agentivity of the potential construction. I claim that this is not the case, referring to two arguments. One argument against the agentivity of the potential construction is that the three diagnostics for subjecthood proposed by Ura all also apply to the unaccusative construction, where the surface subject is traditionally supposed not to be an agent. In (84), the surface external argument of the unaccusative verb *kuru* ‘come’ can bind *zibun*, satisfying the Binding Condition A:

(84) Taro-ga<sub>i</sub> zibun-de<sub>i</sub> Nagoya-e kuru.

Taro-nom self-by Nagoya-to come

‘Taro comes to Nagoya by himself.’

Second, the well-formedness of (85) under the interpretation where the surface external argument can be coreferential with the missing subject of adjunct subordinate clauses shows that even a subject that is traditionally taken not to be an agent can control PRO:

(85) [ PRO<sub>i</sub> tanosimi-nagara ], Taroo-ga<sub>i</sub> Nagoya-e kuru.  
 enjoy-while Taroo-nom Nagoya-to come  
 ‘While enjoying, Taro comes to Nagoya.’

Finally, the well-formedness of (86) shows that the surface external argument of the unaccusative verb also triggers subject honorification:

(86) Yamada sensee-ga Nagoya-e irassyar<sup>20</sup>.  
 Yamada teacher-nom Nagoya-to come (SH)  
 ‘Prof. Yamada can speak English.’

However, if the compositional  $\theta$ -assignment hypothesis I am adopting in this chapter (cf. 4.5) is on the right track, the surface external argument of unaccusative verbs could be agentive, in the sense that it may bear a  $\theta$ -role that consists of THEME and AGENT. Note in this respect that *kuru* is compatible with volitional expressions such as -*(y)ootosuru* and -*tagaru*, as shown in (87) and (88):

(87) Taroo-ga Nagoya-e ko-yootosuru.  
 Taro-nom Nagoya-to come-try to  
 ‘Taro tries to come to Nagoya.’

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<sup>20</sup> The verb *irassyar* ‘come (SH)’ in (86) is the suppletive form of the honorific expression of *kuru*.

(88) Taro-ga Nagoya-e ki-tagaru.

Taro-nom Nagoya-to come-want to

‘Taro wants to come to Nagoya.’

Given (87) and (88), it would be desirable to provide data with verbs that are incompatible with the causative morpheme, *-(y)ootosuru*, and *-tagaru*. One such verb is *mieru* ‘come into sight’. The examples in (89) through (91) show that this verb passes all the diagnostics for subjecthood proposed by Ura:

(89) Taro-ni<sub>i</sub> zibun-de<sub>i</sub> kono zi-ga mieru.

Taro-dat self-by this character-nom come into sight

(lit.) ‘The character comes into Taro’s sight by himself’

(90) [ PRO<sub>i</sub> mabatakisi-nagara ], Taro-ni<sub>i</sub> kono zi-ga mieru.

blink-while Taro-dat this character-nom come into sight

(lit.) ‘While blinking, the character comes into Taro’s sight.’

(91) Yamada sensee-ni kono zi-ga o-mie-ninaru.

Yamada teacher-dat this character-nom SH-come into sight-SH

‘This character comes into Prof. Yamada’s sight.’

Nonetheless, *mieru* is incompatible with the causative morpheme, *-(y)ootosuru*, and *-tagaru*, as shown by (92) through (94):

(92) \*Hanako-ga Taro-ni kono zi-o mie-saseru.  
 Hanako-nom Taro-dat this character-acc come into sight-cause  
 (lit.) ‘Hanako makes this character come into Taro’s sight.’

(93) \*Taro-ga kono zi-ga mie-yootosuru.  
 Taro-nom this character-nom come into sight-try to  
 ‘Taro tries to get the character into his sight.’

(94) \*Taro-ga kono zi-ga mie-tagaru.  
 Taro-nom this character-nom come into sight-want to  
 ‘Taro wants this character to come into sight.’

The data provided above suggest that subjecthood (i.e. the notion of subjecthood involved in Ura’s tests) and agentivity are not necessarily correlated. It also shows that, consistent with the compositional  $\theta$ -assignment hypothesis, there is a strong correlation between causativization and the availability of volitional expressions such as *-(y)ootosuru* and *-tagaru*, as I argued in 4.5.

Another argument against the agentivity of the external argument in (80) through (82) (the subject honorification test in (82), in particular) is that the subject honorific expression *o-hanasi-ninar-eru* ‘SH-speak-SH-can’ in (82) should not be taken to be the honorific form of *hanas-eru* ‘speak can’ in a strict sense. More specifically, if it were the case, the output should be *o-hanas-e-ninaru* ‘SH-speak-can-SH’ rather than *o-hanasi-ninar-eru*, but such an expression is not allowed in Japanese, as shown by the ill-formedness of (95):

(95) \*Yamada sensee-ni eego-ga o-hanas-e-ninaru.

Yamada teacher-dat English-nom SH-speak-can-SH

‘Prof. Yamada can speak English.’

I thus conclude that what is honorified in (82) is not the potential expression as a whole, but only the stem of the verb. I further conclude, along with the data given in (85) through (95), that the external argument of the potential construction is non-agentive.

#### 4.7 Conclusion

In this chapter, I extended the head excorporation theory sketched out in Chapter 3 to other constructions that involve an accusative subject or object. I first discussed Case-dropped accusative NPs; namely, bare NPs which should otherwise bear accusative. I claimed that Case-drop is an operation that deletes the Case-marker at Transfer/Spell Out under adjacency with its Case-assigning verb. Next, I took up the topic of Double-*o* Constraint. Introducing two types of Double-*o* Constraint, the SDoC and the DDoC, respectively, I claimed that the V-*v* complex is allowed to participate in multiple Case-valuation just like the T-C phase. Noting that the DDoC violation cannot be remedied even under the strategies effective for the SDoC violation, I arrived at the conclusion that there is a special syntactic mechanism that prevents an accusative CAUSEE from cooccurring with the accusative THEME, and provided an account of this mechanism which does not extend to multiple nominative constructions. I also considered why causative-potentials are allowed, but potential-causatives are disallowed. I attributed the contrast to the existence of an agentive  $\theta$ -role with causatives. Furthermore, I analyzed causative-potentials in a way that captures Takahashi’s (2010 2011) observation that the



scope facts found in potentials are retained in causative-potentials. Finally, I discussed the interaction among potentials, causatives, and honorification, paying close attention to the agentivity status of the subject.

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