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## CASE LICENSING AND VP STRUCTURE

Kazuko Yatsushiro, Ph.D.

University of Connecticut, 1999

In this thesis, I investigate where the Nominative Case of a DP is licensed in Japanese. It has been argued that Nominative Case is licensed only in the Spec of functional projections, such as TP/AgrP (Koizumi 1995). I argue that Nominative Case can be licensed by certain kinds of verbs/affixes within their local domain in Japanese. I propose that Case licensing takes place when a DP and a Case-licenser are in a local relation, such as Spec-Head or Head-Complement. I use the binding and scope relations, and VP-preposing to show the structural relation between Nominative phrase and another element in a structure, and what kind of structural position the Nominative phrase occupies.

In Chapter 2, I argue that Nominative Case is licensed by the unaccusative verbs in Japanese. The evidence for this claim comes from the scope relation between the Nominative and Locative phrases in the unaccusative and passive constructions. The difference between these constructions leads us to conclude that the Nominative phrase in the passive construction raises overtly over the Locative phrase, whereas that in the unaccusative construction does not.

In Chapter 3, I argue that Nominative Case of an object is licensed by the stative verbs/affixes (Kuno 1973). The evidence comes from the VP-preposing construction and the scope relation between the subject and the object.

In Chapter 4, I show that subjects of unergative and transitive verbs raise to the Spec of TP overtly. I further propose that there is only one position for the subject oriented depictive secondary predicate

In Chapter 5, I discuss the structure within VP in Japanese, arguing that there is evidence for the Split-VP hypothesis proposed by Koizumi (1995), Lasnik (1995), Bobaljik (1996) among others. I also give additional evidence for a classic claim that the indirect objects are always base-generated higher than the direct objects, using the VP-preposing construction.

In Chapter 6, I show that there is covert raising of the Nominative phrase of the unaccusative construction in Japanese. I argue that this is due to the weak EPP feature in T in Japanese.



Case Licensing and VP Structure

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B.A., University of Wisconsin-Madison, 1992

M.A., University of Connecticut, 1996

A Dissertation

Submitted in Partial Fulfillment of

the Requirements for the Degree of

Doctor of Philosophy

at the

University of Connecticut

1999

UMI Number: 9930663

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CASE LICENSING AND VP-STRUCTURE

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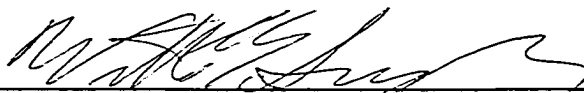
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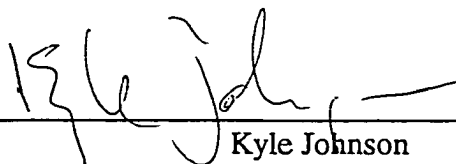
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## **Acknowledgments**

There are so many people from which I benefitted enormously during my time at UConn.

I would like to thank my committee members first. They have been the most patient, supportive and encouraging group of people. Howard has been the source of inspiration to me. Howard's classes were always very clear and exciting. It is quite evident that this thesis grew out of what I learned during his classes, through his writings, and through the conversations with him. His excitement toward linguistics is contagious: after every meeting, I felt that I was doing syntax, and wanted to do more. He has read everything I have written, always with great care, and gave me valuable feedback almost instantly. He also taught me many skills that's useful as a researcher: how to write an abstract, how to give a presentation, etc. I cannot express how lucky I am to have him as my teacher.

William was responsible for the semantic part of my thesis. It was his semantics class that I sat in one semester where I began to understand a little semantics and why a linguist would want to work on semantics. There is an overlap in interest between us, and I learned a lot from his comments, which were always very helpful.

It is actually Kyle's fault that I ended up in the Graduate school at UConn. He was the first linguistics teacher I ever had, when we were both in Madison, Wisconsin. He was the instructor for the intro class I took, and because I thought that linguistics is quite interesting during that semester, I kept taking more and more linguistics classes. Kyle kindly agreed to be on my committee, and has contributed a lot to this thesis. He even met with me in Cambridge when I was too pregnant to come over to Amherst. He always had

nice and encouraging comments whenever I gave him a paper/chapter to read, which was greatly appreciated. Thank you, Kyle!

Mamoru Saito was originally on my committee, until his departure from UConn. As a Japanese linguist and also as a syntactician, it was a great privilege for me to have been able to work with him. He guided me through the generals paper, and beyond. He agreed to be the unofficial part of my committee, and I benefited a lot from meeting with him especially right before I started writing this thesis. It was his encouraging comments that convinced me that the project I was working on might be worthwhile to pursue. He is always able to find a connection between some trivial problem I have and a bigger issue in the field.

I also would like to thank other faculty members at UConn: Diane Lillo-Martin, David Michaels, Ignatius Mattingly, Sigrid Beck, Zeljko Boskovic, and Andrea Calabrese. I benefited a lot from Michael Hegarty's class as well when he was at UConn for a semester. Part of the thesis (Chapter 5) used what I learned from him about the grammar of German.

I am very grateful that I had good friends in Storrs. Some of them deserve special mention. I was lucky to have Asako Uchibori as my classmate. We studied together for Phonetics class, had meals together, talked about linguistics, books, and many other things. She knew a lot more about syntax than me, and I learned a lot from her about linguistics and otherwise. Thanks, Asako! Daiko Takahashi has been an unofficial committee member of both of my generals papers and my thesis. Even though he must have been busy with his work, he was always generous with his time and taught me a lot about syntax, phonology, among other things. It was a lot of fun to play tennis with him

and his wife Mayumi-san, and play maajan and cards all night as well. The Japanese community at UConn provided me a chance to talk about linguistics and to gossip in Japanese, and an access to their idiolect. Thank you, Abe-san, Miyamoto-san, Fukuhara-san, Daiko-san, Mayumi-san, Maki-san, Asako-san, Ayumi-chan, Kazuko-san, Oku-san, and Ochi-san. Elizabeth Laurençot has been one of my best friends. I thank her for the nights I stayed at her place while I was commuting from Boston, for introducing me to Frasier and Caroline, for coming up to Boston to come see me and have coffee at 1369, among many other things. Laurel LaPorte-Grimes also has been a very dear friend who I shared many joys and the suffering of writing thesis. Thank you, Carlos, for your helpful advice when I was not doing well (though you might not remember this..) and many laughs. Keun-Won Sohn felt like a big brother to me. He was always supportive, and he and his wife Sue fed me nice Korean food. I was always amazed by his technique at basketball matches we had, as well. Cedric Boeckx printed out the thesis draft and took it to the Graduate school for me before my defense. He's going to take this thesis to file it at the Graduate school again... I owe him a lot for doing all this, and also being so encouraging when I was finishing my drafts. (And thank you Natasha and Masao for volunteering to file my thesis, as well!)

The Linguistics Club at UConn has a tradition of having nice and warm people. Gangroom provided me a place to hang out and talk with people about linguistics and other things. I want to thank my friends at UConn for being there. Without them, my life at UConn would have been much less interesting and attractive: Hiroto Hoshi, Christine Romero, Jai-Hyoung Cho, Elizabeth Laurençot, Jun Abe, Yoichi Miyamoto, Miyuki Yamashina, Masao Fukuhara, Myung-Kwang Park, Carole Boster, Daiko Takahashi,

Laurel LaPorte-Grimes, Keun-Won Sohn, Rhang Lee, Hideki Maki, Roger Martin, Zeljko Boskovic, Kazumi Matsuoka, Asako Uchibori, Heecheon Park, Pai-Ling Hsiao, Elaine Woodams, Laura Conway, Anne Halbert, Jeong-Seok Kim, Ayumi Matsuo, Kazuko Hiramatsu, Satoshi Oku, Masao Ochi, Tina Hsin, Sandra Stjepanovic, Eric Shortt, Dave Braze, Maki Yamane, Debbie Chen, Sasa Vukic, Marcela Depiante, Doug Wharram, Adolfo Ausín, Yukata Kudo, Arthur Stepanov, Cedric Boeckx, Nobuyoshi Miyoshi, Koji Sugisaki, Luisa Marti Martinez, Natasha Rakhlin.... Sorry if I missed your name, and sorry to the current first and second year people that I didn't have much chance to meet you because I wasn't around.

Since I moved to Boston, I benefited a lot from people at MIT community, both linguistically and otherwise. My deepest thanks go to my family at 22 Magazine Street: Susi Wurmbrand, Jonathan Bobaljik, Meltem Kelepir and Uli Sauerland. Thanks for countless nice dinners and Siedler matches, and much more. Having 4 other linguist around at home was quite nice and convenient as well. I also want to thank my rockclimbing mates: thanks to Jonathan and Uli for introducing me to rockclimbing, and to Susi, Martin, Elizabeth, Meltem, Heidi, Sigrid, and Hana for going climbing with me. Sincere thanks go to Danny, Martin, Jon and Gina for their friendship and some nice dinners and fun we had together (and some interesting discussions on many topics including linguistics), to Paul for not minding me there at their office all the time and adopting me as an office-mate in-law, to Alec for letting Uli and me house/cat-sit (too bad that I'm not close enough any more to take care of Gnocchi) and for a nice appointment, to Shigeru Miyagawa for looking after my linguistic well-being as Japanese syntactician in Boston, to Martha for being always cheerful and nice to talk to about both linguistics and



other things, to Ben and Vivian for being so much fun to play Siedler with and nice to be around, Marie-Helene, Jean-Pierre and Marielle for being friends with Kai and especially Marie-Helene for sharing your experience with me. I also want to thank: Andrew Carnie, Heidi Harley, Colin Philips, Irene Heim, Masa Koizumi, Akira Watanabe, Sabine Iatridou, Norvin Richards, Lisa Mathewson, Rajesh Bhatt, Conny Krause, Orin Percus, Idan Landau, Calixto Aguero, Ingvar Lofsted, Rob Pensalfini, Taylor Roberts, Marie-Claude Boivin, and Hooi-Ling Soh.

I thank Norvin Richards for proofreading many of the chapters of this thesis, Yukiko Ueda for some meetings we had once I was back in Japan and being always so encouraging and excited about what I have to say, Yuko Okada for taking care of Kai sometimes so that Uli and I can focus on linguistics, Roger Martin for discussing the material in Chapter 6,

Finally my family. My parents, Tsutomu and Miyoko Yatsushiro, have been very supportive and patient with my study in the States. I appreciated every phone call and every care package that got sent from Japan. Thanks for believing in me. And my brothers, Osamu and Hiroshi: thanks for being there, all these years.

It is not possible to express how grateful I am to Uli for all he's done for me and for my thesis. He's heard every idea that went through my mind, carefully read all the drafts, pointing out both typographical and theoretical errors, discussed the semanticky parts of my thesis, over and over and over again.. Without him, this thesis would not have been finished... or at least it would have taken me a lot longer time to finish without his

support and love. His help in taking care of our son, Kai, created some free time for me so that I could work with concentration at the end of this process of thesis writing. And Kai: your beautiful smile made every effort to finish this thesis worthwhile. Thanks for coming into our lives.

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## Chapter 1: Introduction

There are two main foci in this thesis. One is the investigation of the Case-licensing mechanism, and the other is the investigation of the clause structure in Japanese. More specifically, as for the Case-licensing mechanism, I examine the licensing of Nominative Case in certain constructions, such as the unaccusative construction and the Nominative object construction.

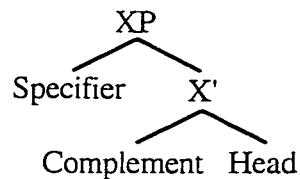
Nominative Case on a DP is expressed by a Case suffix/particle “-ga” in Japanese. It is well-known that the distribution of Nominative Case in Japanese seems different from that in English. For example, it is possible for a clause to have more than one Nominative Case marked DPs in Japanese, whereas in English, it is not. It is also possible for an object to be marked Nominative in certain context in Japanese, while it is not in English. A question is, what licenses Nominative Case when they appear in non-canonical position, such as objects?

It has been claimed that there is a close relationship between Nominative Case and the functional heads such as Tense and AgrS (Koizumi 1995, Ura 1996, among others). According to one instantiation of this type of analysis, the Nominative Case licensing is done in the Spec-Head configuration between the Case-licensing Head, namely Tense and AgrS, and the licensee, the Nominative Case-marked DP. Since the base-generated position of the Nominative Case marked DP is lower than Tense or AgrS, it is assumed that the DP with Nominative Case raises to the Specifier position of the functional Heads during the course of derivation.

In this thesis, I give evidence that the Specifier position of the functional head is not the only structural position where Nominative Case is licensed. More specifically, I will

argue that Case of a DP is licensed by the closest head with the matching Case, when the Case licenser and the licensee are in the local relation. The local relation will be defined to include the Specifier and complement positions of the projection.

(5)



In this introduction, I briefly illustrate two instances where the effect of this Case licensing system can be observed. In Chapter 2, I show that the closest Case licensing Head for the internal argument of the unaccusative verb is the unaccusative verb itself. That is, I argue that unaccusative verbs license Nominative Case of their internal arguments in Japanese. The representative data are shown in (1) and (2) below. In (1), the verb is *iru* 'be, exist'. As shown in (1), the Locative phrase takes wide scope over the Nominative phrase unambiguously, when they appear in the Locative-Nominative order. When they appear in the Nominative-Locative order, on the other hand, as in (1b), the scope ambiguity arises. This contrasts with the passive construction. In (2), the verb is in the passive form. When we have the passive construction, as in (2), both orders result in the ambiguous scope relations. This is a puzzle, since the unaccusative and passive verbs share some common property: in both constructions, the internal argument of the verb is marked Nominative. The contrast between (1) and (2) leads us to conclude that in the case of passive construction, Nominative phrase is forced to raise overtly, whereas in the case of unaccusative construction, it does not raise, for the reasons discussed in detail in Chapter 2. I conclude in Chapter 2 that the reason Nominative phrase raises overtly in the passive construction is the Nominative Case licensing: Nominative Case must be licensed



overtly (Nemoto 1993). Assuming that this is true, I propose that Nominative phrase of the unaccusative construction does not raise overtly because the Nominative Case is licensed by the unaccusative verb.

- (1) a. Dokoka-ni daremo-ga ita.  
 Somewhere-Loc everyone-Nom was  
 'Everyone was somewhere.'  
 some > every  
 \*every > some
- b. Dareka-ga doko-ni-mo ita.  
 Someone-Nom every-Loc-also was  
 'Someone was everywhere.'  
 some > every  
 every > some
- (2) a. Dokoka-ni daremo-ga manek-are-ta.  
 Somewhere-Loc everyone-Nom invite-Pass-past  
 'Everyone was invited to somewhere.'  
 some > every  
 every > some
- b. Dareka-ga doko-ni-mo manek-are-ta.  
 Someone-Nom every-Loc-also invite-Pass-past  
 'Someone was invited to everywhere.'  
 some > every  
 every > some

In Chapter 3, I provide additional evidence that Nominative Case may be licensed not in the Specifier position of a functional projection but rather by a verbal element, when they are in a local relation. The evidence come from the Nominative object construction. It is well-known that objects can have Nominative Case when either the predicate is stative or a stative verb is attached to a verb. The issue is what licenses Nominative Case of the objects? It has been proposed that Tense is responsible for the Nominative Case licensing of the Nominative object (Koizumi 1995). I argue against this proposal in Chapter 3. The representative data is shown in (3).

- (3) [Eigo-ga hanas-e-sae] John-ga sita.  
 English-Nom speak-can-even John-Nom did  
 'Even speak English, John could.'

With the assumption that Nominative Case must be licensed overtly (Tada 1992, Nemoto 1993:ch.4), (3) shows, I argue, that Nominative Case of the object must be licensed in a position lower than Tense: Case of the Nominative object is licensed by the Stative predicate/affix.

It is evident from the example in (3) that it is crucial for us to know the exact architecture of a clause in Japanese to know where the Nominative Case is licensed. For example, it might be that in (3), the fronted constituent includes Tense, and hence, the Nominative object in the fronted material is licensed in the Specifier position of Tense after all. I show in Chapter 5 that there is a reason to believe that the fronted constituent in the construction in (3) is VP. That is, the fronted constituent in (3) does not contain Tense, hence, Nominative case of the object must be licensed in a position other than the Specifier position of Tense.

## Chapter 2: Nominative Case Licensing

### 2.1 Introduction: How do you assign Nominative Case?

In English, Nominative Case is assumed to have a simple distribution: a DP with Nominative Case is a subject, and it is in the Spec(ifier) of TP. This can be seen by looking at pronouns to see which Case they bear. If we have a Nominative pronoun, *I*, *he*, *she*, *we*, *they*, in any other position, the sentences result in ungrammaticality, as shown in (1) and (2).

- (1) a. \*Kai hit *I/he/she/we/they*.  
b. \*Kai understand *I/he/she/we/they*.  
c. \*Kai can praise *I/he/she/we/they*.
- (2) a. \*Kai introduced *I/he/she/we/they* to Riku.  
b. \*Kai introduced Riku to *I/he/she/we/they*.

In Japanese, on the other hand, the distribution of Nominative Case is wider than in English. For example, it is possible for a sentence to have more than one Nominative phrases (e.g., the major subject construction (3a), the Genitive raising construction (3b)). It is also possible to have an internal argument of a transitive verb marked Nominative (the Nominative Object construction (3c)).

- (3) a. Nihon-ga sakana-ga umai.  
Japan-Nom fish-Nom tasty  
'Japan is such that fish is tasty.'
- b. Nihonjin-ga dansee-ga heikinzyumyoo-ga nagai.  
Japanese-Nom man-Nom average-life-span-Nom long  
'Japanese men's average life span is long.'

- c. Kai-ga suugaku-ga tokui-da.  
 Kai-Nom math-Nom is-good-at.  
 'Kai is good at math.'

Nevertheless, it has been proposed that in Japanese as well, Nominative Case is licensed only in the Spec of TP (Ura 1996).

In the next three chapters, I will examine the Case licensing mechanism in Japanese. Specifically, I will examine Nominative Case licensing in certain contexts and argue that some DPs do not raise out of the VPs, hence, do not raise to the Spec of TP for Case. In this chapter, I will discuss the contrast between the Nominative arguments of the unaccusative and passive constructions, and in chapter 3 and 4, I will discuss the Case licensing of Nominative objects and Nominative subjects, respectively.

There are several questions related to Nominative Case licensing in Japanese that have been discussed in the literature. One is whether Nominative Case is licensed by INFL/Tense. Within the Government and Binding theory-framework, Takezawa (1987) proposes that Tense/INFL is solely responsible for the Nominative Case licensing, for both subjects and Nominative Casemarked objects. He proposes that when an object bears Nominative Case, as can be the case with stative verbs/affixes, its Nominative Case is licensed by INFL after INFL lowers to adjoin to the verb. Koizumi (1995) proposes that Nominative Case can be licensed by either AgrS or Tense. According to his theory, Nominative Case of a subject is licensed in the Spec of AgrS via Spec-Head agreement. When an object bears Nominative Case, on the other hand, the Case of the object is licensed by Tense in the Spec of TP. That is, Nominative objects raise to a higher projection. I will argue in what follows that Nominative Case can be licensed not only by Tense/INFL, but also by verbs. What this predicts, then, is that some Nominative

Casemarked arguments will not raise to a higher position, such as Spec of TP, unless there is an external force for the argument to raise. I will show that the prediction is, indeed, borne out.

Another, though related question is, in what structural relation to the licenser is Nominative Case licensed? Koizumi (1995) assumes that it is always licensed in a Specifier position of a functional projection. In other words, Nominative Casemarked DPs always raise out of the VPs to a higher projection. I will argue that subjects of transitive, unergative, and passive verbs, indeed, raise to a higher projection. Internal arguments of unaccusative verbs, on the other hand, do not, even though they are marked Nominative.

In this chapter, I will argue that some verbs license Nominative Case of their complement. I will first show that Nominative Case licensing must take place overtly, using the passive construction.<sup>1</sup> The evidence for this conclusion comes from the scope relation between another argument and the derived subject. Then I proceed to show that the internal argument of the unaccusative construction, which may raise to a higher projection in languages like English, does not raise to a higher projection as the passive counterpart in Japanese. I will propose that this shows that the unaccusative verbs must license Nominative Case in-situ, overtly.<sup>2</sup>

I will also present additional evidence for movement of a DP which is Casemarked Nominative. The evidence comes from secondary predicates in Japanese.

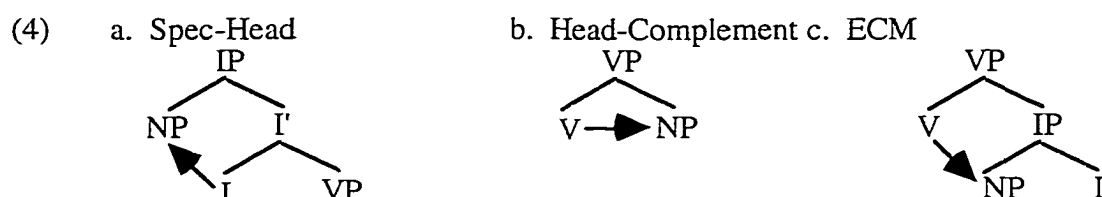
Investigation of Case-licensing will guide us to a better understanding of the phrase structure of a language. This is so because Case-licensing is thought to take place in a

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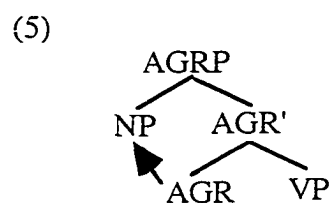
<sup>1</sup>Nemoto (1993: ch 4) also proposes that Nominative Case must be licensed overtly.

<sup>2</sup>To be more precisely, what I will show is that Nominative Case of the internal argument of the unaccusative verb is licensed quite low in a structure--lower than the Spec of TP--within the VP headed by the unaccusative verb. For the ease of exposition, however, I will assume that the position is the complement position of the verb.

specific configuration between Case-licenser and Case-licensee. Within the GB theory, there are three configurations, defined by the notion of Government, in which Case was licensed. The relevant configurations are shown in (4).



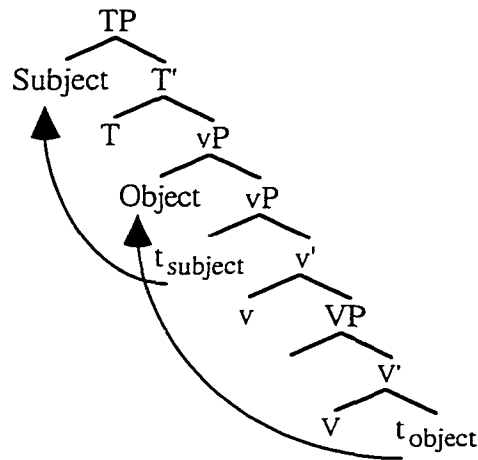
Within the Minimalist Program, however, the notion of Government is abolished, hence, the theories which rely on the notion of Government, such as Case theory, must be reworked. One approach, taken by Chomsky (1992), Koizumi (1995), and Lasnik (1995) among others, is to reduce the relations subsumed under Government to one: Spec-Head relation with a functional category, Agr. In essence, the structure in (4a) is the only possible Case-licensing configuration. In this approach, Agr plays an important role in that it is a licenser of Case and other formal features.



Chomsky (1995: ch4) departs from this approach slightly and propose that the checking takes place without being mediated by AGR, though the relevant configuration is still the Spec-Head relation. Assuming that a category can have multiple number of specifier positions (Tada 1993, Koizumi 1995, Ura 1995, etc.), he proposes that Case-

licensing takes place in the structural configuration shown in (6). Accusative Case of an object is licensed in the outer Spec of vP when the object moves into that position at LF.<sup>3</sup> Nominative Case, on the other hand, is licensed by Tense, as shown in (6). A question arises for the structure in (6), however. If (Accusative) Case is licensed in the Spec of vP, and since the subject is already in the Spec of vP, how is the possibility of the subject bearing Accusative Case excluded? To exclude this possibility, Chomsky proposes that only a non-trivial chain can get its Case-feature of its head licensed.<sup>4</sup> Before moving to the Spec of TP, the subject forms only a trivial chain, hence, does not qualify for the Accusative Case licensing. This ensures, then, that a subject always has Nominative Case in a matrix clause in English.

(6)



<sup>3</sup>Chomsky (1995) proposes that only features move at LF. Assuming there are two kinds of features, formal features and semantic features, Chomsky assumes that each class of features form a bundle of features, and when one of the features is triggered to raise, not only the triggered feature but the whole bundle moves. In this case, the formal features of the object raises to the outer Spec of vP, leaving the rest of the material in the base position.

<sup>4</sup>A trivial chain consists of one member. That is, an element before raising forms a trivial chain.

I will show in this chapter that this approach is incorrect.

I will try to show in this chapter and the next that Nominative Case is licensed in the Spec of TP after a DP raises to that position, or within VP without raising. Evidence comes from the unaccusative construction and the Nominative Object construction. I will discuss the unaccusative construction in this chapter, and then discuss the Nominative Object construction in the next chapter.

## 2.2 Unaccusative Hypothesis

What are unaccusatives? Working in Relational Grammar, Perlmutter (1978) proposes that unaccusatives and passives have something in common: Nominative arguments of the verbs are internal arguments of these verbs.<sup>5</sup> Following the tradition, let us call this the unaccusative hypothesis. According to the unaccusative hypothesis, there are two types of verbs with only one argument: unaccusatives and unergatives. Unaccusatives differ from unergatives in that the only argument of the former is the internal argument of the verb, whereas the argument of the latter is the external argument of the verb. Following Burzio (1986), I will call the internal arguments of unaccusatives *i-subject* (inverted subject). One of the motivations for the unaccusative hypothesis comes from the thematic role the argument bears. In Unergatives and transitives, the theta-role which subjects bear is usually the agent-role (unless the verb is Psych-verb).<sup>67</sup> In unaccusatives,

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<sup>5</sup>In the terminology of Relational Grammar, the subjects of these constructions are initial 2, which advance to 1.

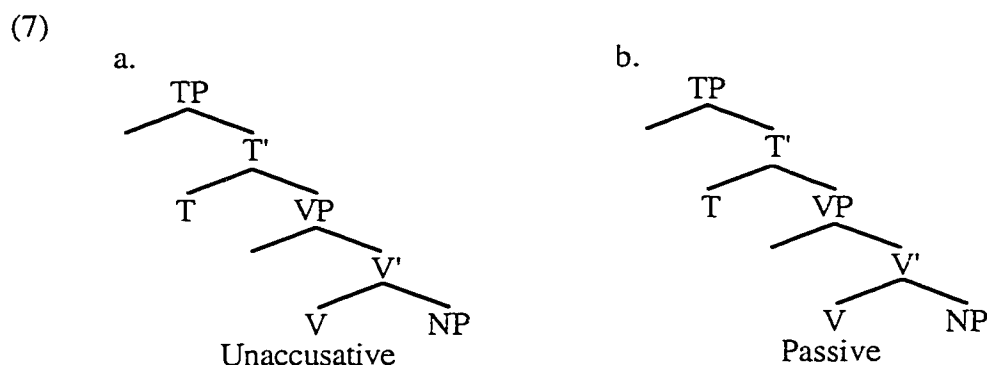
<sup>6</sup>See Belletti and Rizzi (1992) for the analysis of Psych-verbs in which they propose that the “subject” of the Psych-verbs base-generate in the complement position.

<sup>7</sup>See Baker (1997) for a discussion of the thematic-role subjects (other than unaccusative *i*-subjects) bear. Baker proposes that only thematic-role subjects bear the agent role, reducing the experiencer, etc., to the agent.



on the other hand, it is the theme-role, which is usually assigned to the direct objects in the transitive construction (among other possible thematic roles assigned to the direct objects).

Let us put the proposed structures of the unaccusative and passive constructions in familiar tree-structures, as shown in (7).



In these constructions, the internal arguments must raise to the Spec of TP in English, as can be seen in examples such as (8) and (9). The ungrammaticality of (8b) and (9b) seems to stem from the fact that the arguments of the verbs appear post-verbally (in the base-generated positions), and as a result, there is nothing in the Spec of TP (EPP violation). (8b) and (9b) are ungrammatical because the *i*-subjects did not raise to the Spec of TP, as shown in (8c) and (9c), respectively.<sup>8</sup> In (8a) and (9a), on the other hand, the *i*-subjects raise to the preverbal position, the Spec of TP, as shown in (8d) and (9d), respectively. As a result, the examples in (8a) and (9a) are grammatical.

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<sup>8</sup>There is a derivation that converges with unaccusatives which does not have raising of *i*-subject, namely, *there*-construction. In *there*-construction, instead of an *i*-subject raising to the Spec of TP, the expletive *there* occupies the pre-subject position, presumably the Spec of TP, while the *i*-subject occupies a postverbal position, as shown in (i).

(i) There exist gorillas.

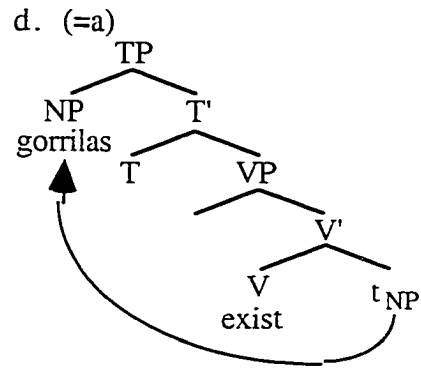
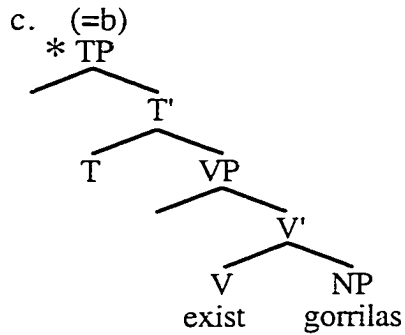
Notice that this construction is not available in the same way for the passive construction as shown in (ii).

(ii) \*There was arrested a man.

I will come back to this construction below.

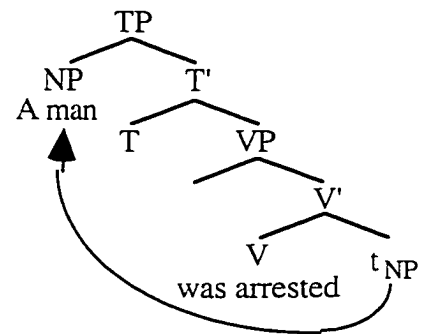
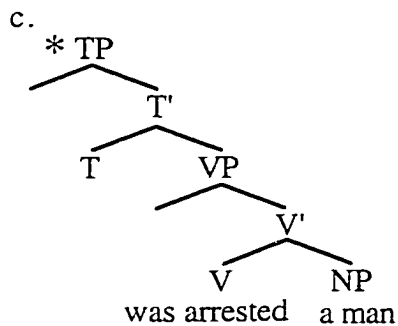
(8) a. Gorillas exist.

b. \*Exist gorillas.



(9) a. A man was arrested.

b. \*Was arrested a man.



One may raise the following question: what is motivating the movement of *i*-subjects of unaccusatives and derived subjects of passives to the Spec of TP in (8a) and (9a)?<sup>9</sup> Or, what goes wrong when *i*-subjects do not raise to the Spec of TP? For the latter question, the standard assumption is that an element (DP, PRO, or trace of a DP) must occupy the

<sup>9</sup>Another way of asking the question is, what causes the ungrammaticality in (8b) and (9b)? I will come back to this point in section 2.2.2.

Spec of TP overtly. This is called Extended Projection Principle (EPP). Hence, the reason (8b) and (9b) are ungrammatical is that the EPP is not satisfied overtly in these examples.

When we consider *there*-construction, however, we see that there is a difference between the unaccusative construction and the passive construction, as noted in the footnote 5. Consider the examples in (i) and (ii) in the footnote 5, repeated here in (10).

- (10) a. There exist gorillas.  
b. \*There was arrested a man.

As shown in (4), the base-generated structures for the Unaccusative and passive constructions are identical. In both constructions, what appears preverbally in grammatical sentences of non-*there*-construction context is the internal argument/*i*-subject of the verb. These elements are base-generated sisters of the verbs. It is a puzzle, then, that *i*-subject may stay post-verbally in the unaccusative construction but not in the passive construction.<sup>10</sup>

This puzzle is related to the question above about the motivation for movement of the *i*-subjects in the unaccusative and passive construction. Following Belletti (1988) and Lasnik (1992, 1994, 1995), I will argue that with the unaccusative construction, the driving force for the movement of an *i*-subject in examples such as (8a) is EPP and Case of the *i*-subject of the unaccusatives is licensed by the verb. With the passive construction, the driving force for the movement of the internal argument is Case (and EPP), since the verbs do not assign Case. In (10a), then, Case is assigned to the *i*-subject of the unaccusative construction, *gorillas*, whereas in (10b), Case is not assigned to the *i*-subject of passive

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<sup>10</sup>I put aside the example of the following form here:  
(i) There was a man arrested.

construction, *a man*. (10b), hence, is ungrammatical due to the Case Filter violation (See section 2.2.2.3 and 2.2.2.4 for more detailed discussion on the account by Belletti (1988) and Lasnik.) In (8b), the reason the example is ungrammatical is because EPP is not satisfied. In (9b), on the other hand, both EPP and the Case Filter are not satisfied. The comparative study between English and Japanese shows that the Case licensed by the Unaccusatives is optional in English whereas it is obligatory in Japanese (See section 2.2.3)

Miyagawa (1989) and Terada (1990) propose that we can analyze the unaccusative and passive constructions in Japanese in a similar fashion as we do for languages such as English and Italian: *i*-subjects of these constructions are base-generated objects of the predicates, and they raise to the Spec of IP overtly. Closer examination reveals, however, that this is not entirely true. I will show that *i*-subjects of unaccusatives in Japanese do not raise to the Spec of TP overtly, whereas the internal arguments of passive verbs do. Note that the difference between the unaccusative and passive constructions with respect to the raising of their (*i*-)subjects is not entirely expected, given the example such as (8a) and (9a) in English. In English, both subjects have to raise to the Spec of TP, due to Extended Projection Principle (EPP).<sup>11</sup>

As mentioned above, I will argue in this chapter that the reason an *i*-subject of the unaccusative construction in Japanese does not raise to the Spec of TP is that an unaccusative verb assigns/licenses (Nominative) Case to its argument as in the case in English (Belletti 1988, Lasnik 1992, 1994, 1995).<sup>12</sup> We will see that we find a difference between the passive and unaccusative constructions with respect to the scope relations

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<sup>11</sup>Unless, of course, the expletive *there* is in the Spec of TP in the case of the Unaccusative construction.

<sup>12</sup>Belletti's (1988) and Lasnik's (1992, 1994) proposal is that it is Partitive Case that is assigned/licensed by the Unaccusative verb. I will justify the departure from their proposal later on in this chapter.

among arguments. I will argue that this can only be explained if we assume that *i*-subjects of the unaccusative construction do not raise overtly, leaving the Spec of TP empty overtly. This contrasts with English. In English, the derivation which leaves the Spec of TP empty, as in (8b), results in ungrammaticality. This is due to the EPP.

We find a difference between English and Japanese, namely, the existence of expletives in English. Consider the following paradigm.

- (11) a. There was a man in the room.  
 b. A man was in the room.  
 c. Heya-ni otoko-ga ita.  
     Room-Loc man-Nom was  
     ‘A man was in the room.’

In (11a), there is an expletive *there* in the preverbal position, and *i*-subject occupies the postverbal position. In English, there has to be a “subject” (an overt element, PRO, or a trace of these elements) occupying the Spec of TP in overt syntax (EPP). If the Spec of TP is not filled overtly as shown in (12), the sentence is ungrammatical.

- (12) \* was a man in the room.

In Japanese, on the other hand, there is no counter-part of (11c) with overt expletive. A question is, does Japanese have the EPP, if the subjects of the unaccusatives do not raise to the Spec of TP? That is, is there anything in the Spec of TP overtly in Japanese? I will argue in what follows that there is, in fact, nothing in the Spec of TP overtly in Japanese.

A remaining question, then, is whether Japanese has EPP or not. I will argue in chapter 6 that Japanese, in fact, has EPP, and that the Nominative argument raises covertly to the Spec of TP to satisfy EPP. Let us assume that one of the formal features, namely,

the D-feature, of T is responsible for the EPP effect. That is, in English, the D-feature of T is a strong feature, and hence, it has to be licensed overtly. EPP in Japanese, however, must be a weak feature. Being a weak feature, it does not require an element to move overtly to the Spec of TP to check the EPP feature in T.

### 2.2.1 Scope facts in Japanese

The goal of this subsection is to show that *i*-subjects of the unaccusative construction in Japanese do not raise out of the VP in which they are base-generated, whereas the derived subjects of the passive construction do. The evidence comes from the scopal relations between two kinds of “subjects” (*i*-subject of the unaccusative construction and derived subject of the passive construction) and Locative phrases. As is well-known, Japanese is a rigid scope language (Kuroda 1970, Kuno 1973, Hoji 1985, among many others (see below)). Scope rigidity helps us determine the structural relation, namely, c-command relation, between two quantificational elements. I will review in section 2.2.1.1 below the reason why the rigidity effect provides us a tool to detect whether there was (overt) movement of one element over another. That is, assuming that the c-command relation determines the scopal relation between two elements (May 1977, Reinhart 1976, among others), rigidity effect helps us identify the base-generated c-command relation between two elements, as well as the c-command relation between two elements after an operation takes place (for the reason given below in section 2.2.1.1).

Using the scope relations as a diagnosis, then, I will propose that the derived subjects of the Passive construction, but not the *i*-subjects of the unaccusative construction, raise to the Spec of TP for Case reasons; that is, to get their Nominative Case feature licensed.

### 2.2.1.1 *Scope Relation of Quantificational Phrases in Japanese*

There are two basic observations on scope relations in Japanese. It has been observed that the scope relation between the subject and the object in (13a) and (13c) is unambiguous: the subject takes wide scope over the object. This is called the rigidity effect (Kuroda 1970, Kuno 1973, Hoji 1985, Ahn 1991, Kim 1993, Aoun & Li 1993, among many others).<sup>13, 14</sup>

- (13) a. Dareka-ga daremo-o aisiteru.  
 Someone-Nom everyone-Acc loves  
 'Someone loves everyone.'  
 someone > everyone  
 \*everyone > someone
- b. Daremo-ga dareka-o aisiteru.  
 Everyone-Nom someone-Acc loves.  
 'Everyone loves someone.'  
 everyone > someone  
 someone > everyone

<sup>13</sup>There is a question as to what extent this generalization is true. That is, some speakers in English perceive ambiguity more readily than others, and so do some speakers in Japanese. What is crucial, however, is the contrast we have between examples such as (13a) and (15b) in Japanese. When we have the order, Subj>Obj, it is significantly harder to get the ambiguity than when we have the order Obj>Subj. When we have the order Obj>Subj, the total ambiguity arises. It is also the case that some Japanese speakers perceive strict rigidity effect. Without an explanation of these phenomena, I continue to assume that Japanese is a "rigid scope language".

<sup>14</sup>The example in (9b) is ambiguous, however. This is due to the nature of indefinite quantifiers. It has been observed that indefinite quantifiers may take apparent wide scope interpretation, or specific interpretation, even when the structure tells us that it should not be possible. Consider (i).

(i) Every linguist will leave the room if a certain philosopher comes.

On one reading, (i) is true only if there is one philosopher such that if he comes all linguists will leave the room. This reading is not expected to be available, if c-command relation is needed for an element to take scope over the other. Covert movement would help here, but it would have to cross an adjunct island. Therefore covert movement is not the solution in this situation. See discussion and proposal on this nature of indefinite quantifiers in Fodor and Sag (1982), Reinhart (1997), Kratzer (1997), among others.

- c. (Kono ie-no) dareka-ga (kono heya-no) subete-no hon-o  
 (This house-Gen) someone-Nom (this room-Gen) all-Gen book-Acc  
 yonda.  
 read  
 'Someone (in this house) read all the books (In this room).'
- (Kuroda's (54), cited in Hoji (1985))
- someone > all the books  
 \*all the books > someone

Let us paraphrase the potential readings for (13a), to make the point clearer. One of the potential readings, in which the subject takes wider scope, can be paraphrased as follows: there is someone such that that person loves everyone. In this reading, there is only one person who loves everyone. The other potential reading, in which the object takes wider scope, can be paraphrased as follows: for everyone, there is someone who loves him/her. Contrasting to the other reading, in this reading, there can be as many loving person as the loved person. The classic observation is that the latter reading is missing for (13a) in Japanese.

This contrasts with a flexible-scope language, such as English. (14) is the counterpart of (13a) in English. In (10), both scope relations are available. That is, either the subject or the object may take scope over the other.

- (14) Someone loves everyone.  
       someone > everyone  
       everyone > someone

The other observation on the scope relations in Japanese is that the syntactic movements seem to affect the scope relations between two quantificational elements in rigid-scope languages (Kuno 1973, Kuroda 1970, Hoji 1985, Ahn 1991, etc.). Compared to the unambiguous scope relation between the subject and the object when they are in the subject-object order as in (13), the scope relation between the subject and the object is



ambiguous when they are ordered in the object-subject order, as shown in (15) and (16). In (15) and (16), we have the object-subject order. As we can see, we obtain ambiguous scope relations in (15) and (16), in contrast with (13) above.

- (15) a. Daremo-o dareka-ga *t* aisiteru.  
 Everyone-Acc someone-Nom *t* loves  
 'Someone loves everyone.'  
 someone > everyone  
 everyone > someone
- b. Dareka-o daremo-ga *t* aisiteru.  
 Someone-Acc everyone-Nom *t* loves  
 'Everyone loves someone.'  
 someone > everyone  
 everyone > someone
- (16) a. (Kono heya-no) subete-no hon-o (kono ie-no) dareka-ga  
 (This room-Gen) all-Gen book-Acc (this house-Gen) someone-Nom  
 yonda.  
 read  
 'Someone (in this house) read all the books (in this room).'  
 someone > all the books  
 all the books > someone
- b. (Kono heya-no) nanika-o (kono ie-no) daremo-ga yonda.  
 (This room-Gen) something-Acc (this house-Gen) everyone-Nom read  
 'Everyone (in this house) read something (in this room).'  
 everyone > something  
 something > everyone

On the standard assumption that the subject-object order is the base-generated order between these two arguments, we can make the following descriptive generalization. When the surface word order is different from the base-generated one, we gain one reading which was not available when the surface order is the same as the base-generated one. The relevant configurations are shown in (17) and (18). When we have a sentence with the configuration in (17), the sentence should exhibit unambiguous scope relation (unless QP<sub>B</sub>

is an existential quantifier, as noted in footnote 6). When we have a sentence with the configuration in (18), on the other hand, we expect the sentence to exhibit ambiguous scope relation, independent of the quantifiers used, for the reasons given shortly.

(17)  $QPA \dots QPB \dots \text{Verb}$

(18)  $QPB_i \dots QPA \dots t_i \dots \text{Verb}$

Following the standard assumption, let us assume that the c-command relation is relevant in determining the scope relation. May (1977) among others argues that a quantificational element that c-commands another quantifier takes scope over the latter.<sup>15</sup> We can conclude, then, that by altering the precedence between two quantificational elements by some operation, we are also altering the c-command relation between these two elements.<sup>16</sup>

Let us assume, for concreteness, that the scope ambiguity arises when reconstruction of the raised element to the position of a trace is possible at LF, following Hornstein (1995) among others. When a movement operation applies to a sentence, then, we have an option between reconstructing the moved element or not reconstructing it back

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<sup>15</sup>May (1977) and others' proposal is that the LF configuration, after QR, determines the scope relation. My assumption is that however the LF representation is created, the scope relation is determined from the LF representation: in the case of English, it may be after QR (or some relevant operation that alters the c-command relation between the Quantifiers by/at LF). In Japanese, on the other hand, there is no operation that move the quantifiers, hence, surface structures are identical to the LF structure with respect to quantifier scope relations.

<sup>16</sup>Reinhart (1976), Huang (1982), Ahn (1992), among others have observed that the s-structure c-command relation between two quantificational elements affects the scope relation of these elements, in the pre-minimalist framework. Within the Minimalist program, the only levels at which any conditions apply are assumed to be the interface levels, either LF or PF. Hence, we need to see whether we can account for the data which were accounted for in the pre-minimalist framework by s-structure conditions, applying conditions solely at LF. If this is not possible, we may have evidence which shows that s-structure is motivated. We will come back to this point later in this chapter.



### 2.2.1.2 *Where is the Locative Phrase?*

Since the unaccusative verbs I will examine in this chapter take Nominative and Locative phrases as arguments, let us first examine the position of the Locative phrase in the clause structure. Japanese has two kinds of Locative particles, *-ni* and *-de*. Many transitive verbs take *-de* Locatives, rather than *-ni* Locatives. Because the unaccusative verbs usually take *-ni* Locatives only, I will use the transitive verbs which take *-ni* Locative to avoid a potential interfering factor.

Consider the examples (20)-(22) below. In these examples, the subjects of transitive verbs and the Locative phrases are quantificational elements. In (20) and (21), the subjects and the Locative phrases are ordered in the Subject-Locative order. The examples in (20b, c) and (b, c) are unambiguous: the Nominative phrase c-commands the Locative phrase unambiguously, in a transitive phrase. That these examples are unambiguous indicates that the subjects and Locative phrases have the structure in (17).

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applying it to the base-generated structure. In (i), there are two applications of Scrambling. First movement raises QPB over the base-position of QPA, and then, QPA further raises over the derived position of QPB. As a result, the PF output should be identical to the original structure, though the resulting structure has the structure shown in (14), hence, the sentence is predicted to be ambiguous.

- i) QPA ... QPB ... <sup>t</sup>QPA ... <sup>t</sup>QPB ... Verb

The fact that the sentences which preserve the base-generated order of the arguments are unambiguous in Japanese, however, suggest that this kind of vacuous Scrambling is not permitted. The question is, why not? (The same question arises in the unaccusative construction I will discuss in the section 2.2.1.3, as also pointed out by Howard Lasnik (p.c.). See the section 2.2.1.3)

I do not have a definite answer to this question, but I speculate that this follows from the principle of Economy. One way to articulate this idea is to say that an operation can take place when there is an effect on either interface level (Chomsky 1995, Reinhart 1993, Fox 1993). In (i), overt movement of QPB has an effect on LF and PF since this movement creates new LF and PF outputs: On PF-side, the linear order becomes different from the base-generated one, and on LF-side, an additional LF-representation becomes available as a result of the operation. The second movement by the QPA, however, does not create either a new PF output or a new LF output: the word order is the same as the one we obtain from base-generated word order (hence we obtain the same PF output as the base-generated structure), and no new interpretation is added by the operation. This is why the second movement cannot take place. As Lasnik (p.c.) correctly points out, this requires a “global” view of economy, however.

That is, a transitive subject is base-generated higher than a Locative phrase, and hence, when they appear in that order, the subject has not raised over the Locative phrase.<sup>18</sup>

- (20) a. Daremo-ga dokoka-ni hon-o oita.  
 Everyone-Nom somewhere-Loc book-Acc placed  
 'Everyone placed a book somewhere.'  
 everyone > somewhere  
 somewhere > everyone
- b. Dareka-ga doko-ni-mo hon-o oita.  
 Someone-Nom everywhere book-Acc placed  
 'Someone placed a book everywhere.'  
 someone > everywhere  
 \*everywhere > someone
- c. Dareka-ga ooku-no-tukue-ni hon-o oita.  
 Someone-Nom many-Gen-table-Loc book-Acc placed  
 'Everyone placed a book on many tables.'  
 someone > many tables  
 \*many tables > someone
- d. Ooku-no hito-ga dokoka-ni hon-o oita.  
 Many-Gen person-Nom somewhere-Loc book-Acc placed  
 'Many people placed a book somewhere.'  
 many people > somewhere  
 somewhere > many people
- (21) a. Daremo-ga dokoka-ni tegami-o okutta.  
 Everyone-Nom somewhere-Loc letter-Acc sent  
 'Everyone sent a letter to somewhere.'  
 everyone > somewhere  
 somewhere > everyone
- b. Dareka-ga doko-ni-mo tegami-o okutta.  
 Someone-Nom everywhere letter-Acc sent  
 'Someone sent a letter to everywhere.'  
 someone > everywhere  
 \*everywhere > someone

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<sup>18</sup>(16a, d) and (17a, d) are ambiguous for the reason discussed above in footnote 6.

- c. Ooku-no hito-ga dokoka-ni tegami-o okutta.  
 Many-Gen person-Nom somewhere-Loc letter-Acc sent  
 'Many people sent a letter to somewhere.'  
 many > somewhere  
 \*?somewhere > many
- d. Dareka-ga ooku-no ie-ni tegami-o okutta.  
 Someone-Nom many-Gen house-Loc letter-Acc sent  
 'Someone sent a letter to many houses.'  
 many houses > someone  
 someone > many houses

In (22) and (23), subjects and Locative phrases are ordered in the Locative-subject order. As we see, (22b, c) and (23b, c) which are derived from (20b, c) and (21b, c), are ambiguous, in contrast to (20b, c) and (21b, c). As discussed in footnote 6, however, (22b, c) and (23b, c) may be ambiguous for an independent reason. Since (22a, d) and (23a, d) are ambiguous, we can safely conclude the conclusion above: the transitive subjects are base-generated higher than the Locative phrases, and the Locative-subject order is a derived structure, involving the configuration shown in (18).

- (22) a. Dokoka-ni daremo-ga hon-o oita.  
 Somewhere-Loc everyone-Nom book-Acc placed  
 'Everyone placed a book somewhere.'  
 somewhere > everyone  
 everyone > somewhere
- b. Doko-ni-mo dareka-ga hon-o oita.  
 Everywhere someone-Nom book-Acc placed  
 'Someone placed a book everywhere.'  
 everywhere > someone  
 someone > everywhere
- c. Ooku-no tukue-ni dareka-ga hon-o oita.  
 Many-Gen table-Loc someone-Nom book-Acc placed  
 'Everyone placed a book on many tables.'  
 someone > many tables  
 many tables > someone

- d. Dokoka-ni ooku-no hito-ga hon-o oita.  
 Somewhere-Loc many-Gen person-Nom book-Acc placed  
 ‘Many people placed a book somewhere.’  
 many people > somewhere  
 somewhere > many people
- (23) a. Ooku-no ie-ni daremo-ga tegami-o okutta.  
 Many-Gen house-Loc everyone-Nom letter-Acc sent  
 ‘Everyone sent a letter to many house.’  
 many > everyone  
 ?everyone > many
- b. Dono-ie-ni-mo dareka-ga tegami-o okutta.  
 Every-house-Loc-also someone-Nom letter-Acc sent  
 ‘Someone sent a letter to every house.’  
 every house > many  
 many > every
- c. Dokoka-ni ooku-no hito-ga tegami-o okutta.  
 Somewhere-Loc many-Gen person-Nom letter-Acc sent  
 ‘Many people sent a letter to somewhere.’  
 many > somewhere  
 somewhere > many
- d. Ooku-no ie-ni dareka-ga tegami-o okutta.  
 Many-Gen house-Loc someone-Nom letter-Acc sent  
 ‘Someone sent a letter to many houses.’  
 many houses > someone  
 someone > many houses

Let us next examine the structural relation between the direct object, which is marked by the Accusative particle *-o* (except for in (25b) and (27b)), and the Locative phrase.<sup>19</sup> In (24) and (25), the objects and the Locative phrase are ordered object-Locative. As we see, the object-Locative order results in ambiguous scope relations, independent of the kind of quantifier used in each argument.

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<sup>19</sup>The particle *-mo* ‘also’ gives an NP a quantificational meaning.

## Object-Locative order

- (24) a. Susi-ga dareka-o dono-heya-ni-mo maneita.  
 Susi-Nom someone-Acc every-room-Loc-also invited  
 'Susi invited someone to every room.'  
 someone > every room  
 every room > someone
- b. Susi-ga daremo-o dokoka-ni maneita.  
 Susi-Nom everyone-Acc somewhere-Loc invited  
 'Susi invited everyone to somewhere.'  
 everyone > somewhere  
 somewhere > everyone
- c. Susi-ga dareka-o ooku-no heya-ni maneita.  
 Susi-Nom someone-Acc many-Gen room-Loc invited  
 'Susi invited someone to many rooms.'  
 someone > many rooms  
 many rooms > someone
- d. Susi-ga ooku-no hito-o dokoka-ni maneita.  
 Susi-Nom many-Gen person-Acc somewhere-Loc invited  
 'Susi invited many people to somewhere.'  
 many people > somewhere  
 somewhere > many people
- (25) a. Susi-ga nanika-o dono-ie-ni-mo okutta.  
 Susi-Nom something-Acc every-house-Loc-also invited  
 'Susi sent something to every house.'  
 someone > every house  
 every house > someone
- b. Susi-ga dono-tegami-mo dokoka-ni okutta.  
 Susi-Nom every-letter-also somewhere-Loc sent  
 'Susi sent every letter to somewhere.'  
 every letter > somewhere  
 somewhere > every letter
- c. Susi-ga nanika-o ooku-no ie-ni okutta.  
 Susi-Nom something-Acc many-Gen house-Loc sent  
 'Susi sent something to many houses.'  
 something > many houses  
 many houses > something



- d. Susi-ga ooku-no tegami-o dokoka-ni okutta.  
 Susi-Nom many-Gen letter-Acc somewhere-Loc sent  
 'Susi sent many letters to somewhere.'  
 many letters > somewhere  
 somewhere > many letters

In the Locative-Object order, on the other hand, we get the unambiguous scope relation in (26b, d) and (27b, d). This shows that the Locative-Object order is the base-generated order, and the Object-Locative order is derived from the Locative-Object order.

- (26) a. Susi-ga dono-heya-ni-mo dareka-o manei-ta.  
 Susi-Nom every-room-Loc-also someone-Acc invite-past  
 'Susi invited someone to every room.'  
 everywhere > someone  
 someone > everywhere
- b. Susi-ga dokoka-ni daremo-o manei-ta.  
 Susi-Nom somewhere-Loc everyone-Acc invite-past  
 'Susi invited everyone to somewhere.'  
 somewhere > everyone  
 \*everyone > somewhere
- c. Susi-ga ooku-no heya-ni dareka-o maneita.  
 Susi-Nom many-Gen room-Loc someone-Acc invited  
 'Susi invited someone to many rooms.'  
 many rooms > someone  
 someone > many rooms
- d. Susi-ga dokoka-ni ooku-no hito-o maneita.  
 Susi-Nom somewhere-Loc many-Gen person-Acc invited  
 'Susi invited many people to somewhere.'  
 somewhere > many people  
 \*many people > somewhere
- (27) a. Susi-ga dono-ie-ni-mo nanika-o okutta.  
 Susi-Nom every-house-Loc-also something-Acc invited  
 'Susi sent something to every house.'  
 every house > someone  
 someone > every house

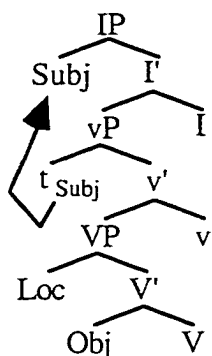
- b. Susi-ga dokoka-ni dono-tegami-mo okutta.  
 Susi-Nom somewhere-Loc every-letter-also sent  
 'Susi sent every letter to somewhere.'  
 somewhere > every letter  
 \*every letter > somewhere
- c. Susi-ga ooku-no ie-ni nanika-o okutta.  
 Susi-Nom many-Gen house-Loc something-Acc sent  
 'Susi sent something to many houses.'  
 something > many houses  
 many houses > something
- d. Susi-ga dokoka-ni ooku-no tegami-o okutta.  
 Susi-Nom somewhere-Loc many-Gen letter-Acc sent  
 'Susi sent many letters to somewhere,'  
 many letters > somewhere  
 somewhere > many letters

Let us summarize the base-generated structural relations between the subjects and the locatives and the locatives and the objects. As we have seen, the subject-Locative order preserves the base-generated order/c-command relations between these arguments. If the subjects can be base-generated lower than the locatives, we should obtain the ambiguous scope relations. Since we do not, we conclude that the subjects must always be base-generated higher than the locatives. The locatives, on the other hand, must be base-generated higher than the objects. Let us follow Hale and Keyser (1989), Chomsky (1995:ch4) among others, and assume that there are VP-shells for the transitive construction which is headed by V and v, as shown in (28). Let us further assume that the locative phrase is adjoined, or generated within the VP (Murasugi 1992), and subjects are base-generated within the vP.<sup>20, 21</sup> Subject, then, c-commands the Locative phrase, unambiguously.

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<sup>20</sup>According to (Murasugi 1992), the Locative phrase may be either adjoined to V' or T'. If it is adjoined to T', however, we expect the quantifier in the Locative phrase and the Subject quantifier to interact, as shown below.

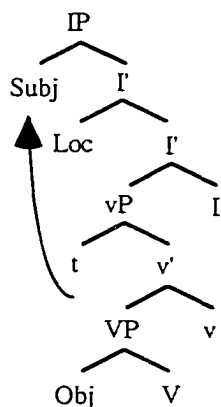
(28)



### 2.2.1.3 Unaccusative vs. Passive Constructions

Let us now turn to the Unaccusative and passive constructions. As mentioned at the beginning of this section, I assume that *i*-subjects of the unaccusative construction and derived subject of the passive construction (henceforth, I will refer to both *i*-subjects and

i)



If the Locative phrase (at least the one I am examining in this paper) can be adjoined to I', an overt movement of Subject over the Locative phrase should induce the ambiguous scope relation in the sentences such as (8) and (9).

<sup>21</sup>There is a question of whether adjunction is only to a maximal projection or not (Chomsky 1995, etc.). Whether adjunction is only to a maximal projection or not does not affect the analysis I am presenting here, however, as long as the Locative phrase is associated with the VP, rather than the vP.

derived subjects as Nominative phrase) are base-generated as complements of the verb, being internal arguments. This leads us to a question: Does a Nominative phrase raise to the specifier position of a higher projection from its base-generated position? If the Nominative Phrases raise to the Spec of TP, as Miyagawa (1989) and Terada (1990) propose, they must raise over the locatives, hence, we should obtain ambiguous scope relations between Nominative and locative phrases, independent of the ordering between the arguments. If Nominative phrases do not raise to the Spec of TP, on the other hand, the locative-Nominative order should result in the unambiguous scope relation, since the order represents the base-generated order of these arguments, and the ordering/hierarchical relation between the arguments is not altered via movement.

#### 2.2.1.3.1 Kuno (1973): Existential construction

Before going into the argument from quantifier scope relation, let us review Kuno (1973). Kuno (1973: ch 28) discusses the position of Locatives in existential construction in Japanese, and proposes that the basic word order of the existential construction in Japanese is Locative-Nominative-Verb. One piece of his evidence comes from the distribution of the Thematic and contrastive “-*wa*”. He observes that when a sentence initial NP bears “-*wa*”, it is ambiguous between the thematic and contrastive reading of “-*wa*”. Consider (29). In (29a), the sentence initial element, the subject, is marked by -*wa*. In this case, both thematic and contrastive readings are available. When the object bears -*wa*, as in (29b) and (29c), only the contrastive reading is available.

- (29) a. Kai-*wa* hon-o yonda.  
           Kai-Top book-Acc read  
           ‘Kai read a book.’  
           (i) Theme: Speaking of Kai, he read a book.  
           (ii) Contrast: As for Kai he read a book (but as for the other people....)

- b. Kai-ga hon-wa yonda.  
 Kai-Nom book-Top read  
 'Kai read a book.'  
 (i) Contrast: As for a book, Kai read it (but as for a magazine, etc....)
- c. Hon-wa Kai-ga yonda.  
 book-Top Kai-Nom read  
 'Kai read a book.'  
 (i) Contrast: As for a book, Kai read it (but as for a magazine, etc....)

As for the existential construction, Kuno observes that both the thematic and contrastive readings are available for the Locative phrase marked by *-wa*, which suggests that the Locative phrase is the sentence initial element in the construction, as shown in (30a). When the Nominative phrase is marked with *-wa*, on the other hand, only the contrastive reading is available, as shown in (30b) and (30c).

- (30) a. Sono teiburu-no ue-ni-wa koppu-ga atta. (Kuno's (15), p.357)  
 the table-Gen top-Loc-Top cup-Nom existed  
 'There were cups on the table.'  
 (i) Theme: Speaking of the table, there were cups on it.'  
 (ii) Contrast: As for the table, there were cups (but as for .....)
- b. Sono teiburu-no ue-ni koppu-wa atta.  
 the table-Gen top-Loc cup-Top existed  
 'There were cups on the table.'  
 (i) Contrast: As for the cups, they were on the table (but as for books...)
- c. Koppu-wa sono teiburu-no ue-ni atta.  
 cup-Top the table-Gen top-Loc existed  
 'There were cups on the table.'  
 (i) Contrast: As for the cups, they were on the table (but as for books...)

The paradigm shown in (30) can be best explained by assuming that the Locative phrases are located above the Nominative phrases, Kuno concludes.

Although Kuno's observation is limited to the existential construction, we can extend his argument to other unaccusative verbs. Consider the examples in (31). We find

the same pattern with respect to the availability of thematic and contrastive readings of the topic marker *-wa* with an unaccusative verb, *tuku* ‘arrive’.

- (31) a. Sono ie-ni-wa tegami-ga tuita.  
           the house-Loc-Top letter-Nom arrived  
           ‘A letter arrived at the house.’  
           (i) Theme: Speaking of the house, a letter arrived there.  
           (ii) Contrast: As for the house, a letter arrived there (but as for the school....)
- b. sono ie-ni tegami-wa tuita.  
           the house-Loc letter-Top arrived  
           ‘A letter arrived at the house.’  
           (i) As for a letter, it arrived at the house (but as for a book....)
- c. Tegami-wa sono ie-ni tuita.  
           letter-Top the house-Loc arrived  
           ‘A letter arrived at the house.’  
           (i) As for a letter, it arrived at the house (but as for a book....)

In the next section, I will discuss the evidence from the quantifier scope relation.

#### 2.2.1.3.2 Unaccusative Construction and Quantifier Scope

Kuno (1973) gives another piece of evidence for his proposal that the Locative-Nominative order is the base-generated one. The evidence comes from the quantifier scope relation. As mentioned above, Kuno’s (1973) observation is limited to the existential construction. I will generalize his analysis to the unaccusative construction.

Consider the examples in (32)-(35). In (32) and (33), examples with the verb *iru* ‘be’ are shown. In (34) and (35), examples with *tuku* ‘arrive’ are shown. In (32) and (34), the order of the arguments is Locative-Nominative, and in (33) and (35), Nominative-Locative. As can be seen below, we obtain unambiguous scope relations when we have

the Locative-Nominative order, as in (32a), (32c), (34a) and (34c)<sup>22</sup>: the locative phrases take wide scope over the Nominative phrases in these examples. As mentioned above, the order Locative-Nominative should represent the base-generated order. Moreover, the unambiguity of these sentences shows that Nominative phrases do not undergo movement when they appear after the Locative phrases. When we have the Nominative-Locative order, on the other hand, we have ambiguous scope relations, independent of the quantifiers used in the examples, as shown in (33) and (35). That the examples in (33) and (35) are all ambiguous indicates that these examples do not represent the base-generated structure: the examples in (32) and (34) represent the base-generated structure, and (33) and (35) are derived via scrambling the Nominative phrase over the Locative phrase. (34a, c) and (35, c) show that the missing reading of (32a, c) and (33a, c), the universal quantifier taking wide scope over the existential quantifier, is not semantically impossible.

*iru* 'be'

- (32) a. Dokoka-ni daremo-ga ita.  
 Somewhere-Loc everyone-Nom was  
 'Everyone was somewhere.'  
 somewhere > everyone  
 \*everyone > somewhere
- b. Doko-ni-mo dareka-ga ita.  
 Everywhere someone-Nom was  
 'Someone was everywhere.'  
 everywhere > someone  
 someone > everywhere
- c. Dokoka-ni ooku-no hito-ga ita.  
 Somewhere-Loc many-Gen person-Nom was  
 'Many people were somewhere.'  
 somewhere > many people  
 \*many people > somewhere

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<sup>22</sup>Again, I assume that the reason some examples which are expected to be unambiguous, namely, (32d), is ambiguous comes from the nature of indefinite quantifier, rather than the structural relation between the quantifiers. (See footnote 6.)

- d. Ooku-no basyo-ni dareka-ga ita.  
 Many-Gen place-Loc someone-Nom was  
 'Someone was at many places.'  
 many places > someone  
 someone > many places
- (33) a. Daremo-ga dokoka-ni ita.  
 Everyone-Nom somewhere-Loc was  
 'Everyone was somewhere.'  
 somewhere > everyone  
 everyone > somewhere
- b. Dareka-ga doko-ni-mo ita.  
 Someone-Nom everywhere was  
 'Someone was everywhere.'  
 everywhere > someone  
 someone > everywhere
- c. Ooku-no hito-ga dokoka-ni ita.  
 Many-Gen person-Nom somewhere-Loc was  
 'Many people were somewhere.'  
 somewhere > many people  
 many people > somewhere
- d. Dareka-ga ooku-no basyo-ni ita.  
 Someone-Nom many-Gen place-Loc was  
 'Someone was at many places.'  
 many places > someone  
 someone > many places
- (34) a. Dokoka-ni daremo-ga tuita.  
 Somewhere-Loc everyone-Nom arrived  
 'Everyone arrived somewhere.'  
 somewhere > everyone  
 \*everyone > somewhere
- b. Doko-ni-mo dareka-ga tuita.  
 Everywhere someone-Nom arrived  
 'Someone arrived everywhere.'  
 every room > someone  
 someone > every room
- c. Dokoka-ni ooku-no hito-ga tuita.  
 Somewhere-Loc many-Gen person-Nom arrived



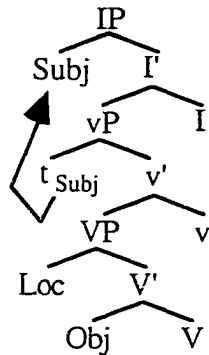
‘Many people arrived somewhere.’  
 somewhere > many people  
 \*many people > somewhere

- d. Ooku-no basyo-ni dareka-ga tuita.  
 Many-Gen place-Loc someone-Nom arrived  
 ‘Someone arrived at many places.’  
 many places > someone  
 someone > many places

- (35) a. Daremo-ga dokoka-ni tuita.  
 Everyone-Nom somewhere-Loc arrived  
 ‘Everyone arrived somewhere.’  
 somewhere > everyone  
 everyone > somewhere
- b. Dareka-ga doko-ni-mo tuita.  
 Someone-Nom everywhere arrived  
 ‘Someone arrived everywhere.’  
 every room > someone  
 someone > every room
- c. Ooku-no hito-ga dokoka-ni tuita.  
 Many-Gen person-Nom somewhere-Loc arrived  
 ‘Many people arrived somewhere.’  
 somewhere > many people  
 many people > somewhere
- d. Dareka-ga ooku-no basyo-ni tuita.  
 Someone-Nom many-Gen place-Loc arrived  
 ‘Someone arrived at many places.’  
 many places > someone  
 someone > many places

The examples in (32) and (34) show, then, that Nominative phrases of the unaccusative construction do not raise over the Locative phrases. We have concluded in section 2.2.1.2 that the Locative phrase is base-generated higher than the complement position of the most internal argument (transitive object), as shown in the structure in (28), repeated in (36).

(36)



If the Nominative phrases of the unaccusative construction are, indeed, base-generated in the complement position of the verbs, we can make one of the following conclusions: either that Nominative Case licensing takes place at LF, hence, the raising for Nominative Case licensing by the Nominative phrases does not take place until LF, or Nominative Case is not licensed by INFL.

In the next section, I will show that Nominative Case must be licensed overtly, taking data from the passive construction.

#### 2.2.1.3.2 Passive Construction

According to the unaccusative hypothesis, the unaccusative construction and the passive construction share a common property: the *i*-subjects of these constructions are base-generated internal arguments of the verbs. This, in turn, leads us to expect that we see this property reflected in other parts of the behaviors of these classes of verbs. More specifically, we expect that these two classes of verbs might exhibit identical scopal properties.

The examples in (37)-(40) are from the passive construction. In (37) and (38), examples with the Locative-Nominative order are shown. As we can see, the examples are

all ambiguous, independent of the quantifiers used. This is significant, since this shows that unaccusatives and passives differ in their scopal properties. Recall that in the unaccusative construction, the Locative-Nominative order exhibits unambiguous scope relations. We concluded from this fact that Nominative phrase in the unaccusative does not raise over the Locative phrase. The passive construction shows, however, that Nominative phrases of the passive construction raise over the Locative phrases overtly. Where does this difference come from?

- (37) a. Dokoka-ni dono-hon-mo(-ga) ok-are-ta.  
 Somewhere-Loc every-book-also(-Nom) place-Pass-past  
 'Every book was placed somewhere.'  
 somewhere > every book  
 every book > somewhere
- b. Dono-heya-ni-mo nanika-ga ok-are-ta.  
 Every-room-Loc-also something-Nom place-Pass-past  
 'Something was placed in every room.'  
 something > every room  
 every room > something
- c. Dokoka-ni ooku-no hon-ga ok-are-ta.  
 Somewhere-Loc many-Gen book-Nom place-Pass-past  
 'Many books were placed somewhere.'  
 somewhere > many books  
 Many books > somewhere
- d. Ooku-no heya-ni nanika-ga ok-are-ta.  
 Many-Gen room-Loc something-Nom place-Pass-past  
 'Something was placed in many rooms.'  
 many rooms > something  
 something > many rooms
- (38) a. Dokoka-ni dono-tegami-mo(-ga) oku-rare-ta.  
 Somewhere-Loc every-letter-also(-Nom) send-Pass-past  
 'Every letter was sent somewhere.'  
 somewhere > every letter  
 every letter > somewhere
- b. Dono-ie-ni-mo nanika-ga oku-rare-ta.

Every-house-Loc-also something-Nom send-Pass-past

'Something was sent to every house.'

something > every house

every house > something

- c. Dokoka-ni ooku-no tegami-ga oku-rare-ta.  
 Somewhere-Loc many-Gen letter-Nom send-Pass-past  
 'Many letters were sent somewhere.'  
 somewhere > many letter  
 many letter > somewhere
- d. Ooku-no ie-ni nanika-ga oku-rare-ta.  
 Many-Gen house-Loc something-Nom send-Pass-past  
 'Something was sent to many houses.'  
 many houses > something  
 something > many houses

The examples in (39) and (40) are in the Nominative-Locative order. All the examples in (39) and (40) are ambiguous as well. That is, the examples in (39) and (40) also involve overt movement: in the passive construction, both Nominative-Locative and Locative-Nominative orders are derived structures. If we assume that Nominative phrases of the passive construction are base-generated complements of the verbs, the examples in (39) and (40) are derived from (37) and (38), respectively. But (37) and (38) themselves are derived structures, contrasting with the unaccusative construction. Recall that in the Unaccusative construction, the Locative-Nominative order exhibits unambiguous scope relations. How is this the case?

- (39) a. Dono-hon-mo(-ga) dokoka-ni ok-are-ta  
 Every-book-also(-Nom) somewhere-Loc place-Pass-past  
 'Everybook was placed somewhere'  
 somewhere > every book  
 every book > somewhere
- b. Nanika-ga dono-heya-ni-mo ok-are-ta  
 Something-Nom every-room-Loc-also place-Pass-past  
 'Something was placed in every room'  
 something > every room

every room > something

- c. Ooku-no hon-ga      dokoka-ni      ok-are-ta  
Many-Gen book-Nom somewhere-Loc place-Pass-past  
'Many books were placed somewhere'  
many books > somewhere  
somewhere > many books
  - d. Nanika-ga      ooku-no heya-ni      ok-are-ta  
Something-Nom many-Gen room-Loc place-Pass-past  
'Something was placed in many rooms'
- (40)
- a. Dono-tegami-mo(-ga)      dokoka-ni      oku-rare-ta  
Every-letter-also(-Nom) somewhere-Loc send-Pass-past  
'Every letter was sent somewhere'  
every letter > somewhere  
somewhere > every letter
  - b. Nanika-ga      dono-ie-ni-mo      oku-rare-ta  
Something-Nom every-house-Loc-also send-Pass-past  
'Something was sent to every house'  
every house > something  
something > every house
  - c. Ooku-no tegami-ga      dokoka-ni      oku-rare-ta  
Many-Gen letter-Nom somewhere-Loc send-Pass-past  
'Many letters were sent somewhere'  
many letter > somewhere  
somewhere > many letter
  - d. Nanika-ga      ooku-no ie-ni      oku-rare-ta  
Something-Nom many-Gen house-Loc send-Pass-past  
'Something was sent to many houses'  
something > many houses  
many houses > something

It must be the case, then, that either the Locative or Nominative phrases raise obligatorily in the passive construction. Given that it is harder to imagine a situation in which Locative phrases obligatorily raise, I propose that it is Nominative phrases of the passive construction that are forced to raise overtly. This is why none of the examples in (37)-(40) represent the “base-generated” structure, since in all examples, the Nominative phrases

raise over the the Locative phrases. This contrasts with the unaccusative construction, in which Nominative phrases do not raise when they appear after the Locative phrases.

Since it is an obligatory operation, I assume that one of the (formal) features is motivating the movement. Possible candidates are Case feature (of either the target or the Nominative phrase), EPP, and agreement. I will come back to this point in the next section.

Here is the summary of the scope relation between the Locative phrases and the Nominative phrases:

(41)

	Unaccusative	Passive
Locative-Nominative	unambiguous	ambiguous
Nominative-Locative	ambiguous	ambiguous

What we have to account for, then, is the reason why the unaccusative construction and the passive construction exhibit different scope relations between the Locative phrase and the Nominative phrase.

### 2.2.2 Proposal: Case licensing within VP

#### 2.2.2.1 *Passives vs. Unaccusatives*

Let us now discuss what the difference between the passive and unaccusative constructions is. In the passive construction, both the Locative-Nominative and Nominative-Locative orders exhibit ambiguous scope relations, whereas in the unaccusative construction, only the Nominative-Locative order exhibits ambiguous scope relations. We have discussed that in both constructions, the Nominative phrases are base-generated in the complement positions of the verbs. What, then, could be forcing the Nominative phrase of the passive construction to raise overtly? Put it differently, why are

the Nominative phrases of the Unaccusative construction allowed to remain lower than the Locative phrase, presumably, in-situ?

I propose that the reason the Nominative phrase of the passive construction has to raise overtly is Case. This proposal implies two things: One is that Nominative Case must be licensed overtly. If not, the Nominative phrases of the passive construction should be able to stay in-situ overtly and wait until LF to raise to a Case position. Second, it is the DP, not T, that has to get its Nominative Case licensed. If it were the Nominative Case of T that had to be licensed, we would not have a difference between the unaccusative and passive constructions: in either construction, a DP with Nominative Case has to raise to the Spec of TP to license/check off the Nominative Case of T. That we have a difference between these two constructions show that it is not the target, but rather, the DP that motivates the movement.<sup>23</sup>

Concerning the difference between the unaccusative and passive constructions with respect to the Scope relations, I propose that the difference is that the unaccusative verbs license Nominative Case of their complements. The passive verbs, on the other hand, do not have this Case-licensing ability, hence, the complement raises obligatorily to another Case position, the Spec of TP.

I suggest that this Case licensing property is not peculiar to the unaccusative construction. But rather, verbs, in general, always license Case to their internal arguments in their local domain, unless they belong to the specific class of verbs, namely, the passive verbs.<sup>24, 25</sup> Let us assume the following definition of the local domain.

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<sup>23</sup>In the literature, there have been discussions on whether movement takes place due to a feature in the target or in the moved element, or both. See some discussion on this topic (Greed vs. Enlightened Self Interest) in Chapter 6.

<sup>24</sup>I suggest that this Case licensing property holds for even English ECM verbs. Lasnik and Saito (1991) argue that ECM subjects raise to a position in the higher clause. I assume that this movement is to the

- (42) X is within the local domain of Y when it is in the Spec or complement position of Y.

When a DP cannot get its Case licensed in-situ, as we see in the passive construction, it raises to the closest Case licensing position with a matching Case. The reason the Nominative phrase of the unaccusative construction does not raise overtly is because the verb licenses Case of its internal argument, the Nominative Phrase. Belletti (1988) and Lasnik (1992, 1994) already propose that unaccusative verbs license Case of their arguments. I will review their proposals and analyses in section 2.2.2.2 and 2.2.2.3.

Before going into the review of Belletti (1988) and Lasnik (1992), let me illustrate my proposal, using examples. Consider (29a) and (30b), repeated here as (43) and (44). In (43), there is no movement of the Nominative phrase since the Case of DP is licensed in-situ by the verb. A sentence is ambiguous just in case it has the structure shown in (18), providing a reconstruction site for the moved element. Since there is no movement of the Nominative phrase over the Locative phrase or movement of the Locative phrase over the Nominative phrase, there are no reconstruction sites for either phrase below the other. That is, the Locative phrase is base-generated higher than the Nominative phrase, and hence, there is no copy of the Locative phrase lower than the Nominative phrase. Since Nominative phrase does not raise, either, there is no copy of Nominative phrase higher

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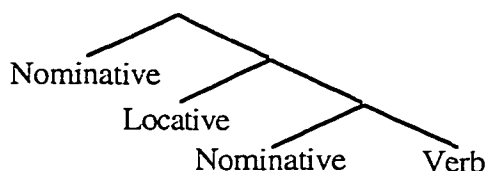
local domain of the higher verb, namely, the ECM verb, since the Case of ECM subjects cannot get licensed in the lower clause.

The proposal in this thesis, though I discuss only Nominative Case, should extend to the Accusative Case licensing as well. That is, I assume that Accusative Case is usually licensed by a transitive verb in the complement position of the verb (But see above for the ECM construction), without raising to a higher projection. This, however, needs to be worked out further.

<sup>25</sup>In Chapter 4, we see another instance of DP raising for Case to a local domain of a higher verb, namely the Nominative Object construction. We will see that the Nominative objects raise to higher position, which contrasts with the Accusative objects which do not raise.

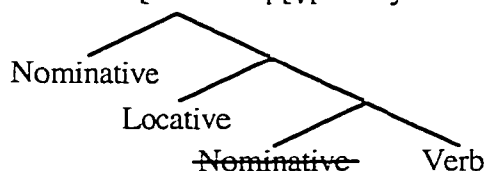




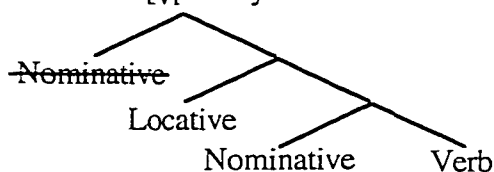


Since there are two copies of the Nominative phrase, we have two options at LF: we can delete the top copy, resulting in Locative>Nominative scope relation ((47b)); or we can delete the bottom copy, resulting in Nominative>Locative scope relation ((47a)). This, I assume, is the reason the Nominative-Locative order is ambiguous in the unaccusative construction.

(47) a. LF1 [someone<sub>i</sub> [<sub>VP</sub> everywhere t<sub>i</sub> was ]



b. LF2 [<sub>VP</sub> everywhere someone was]



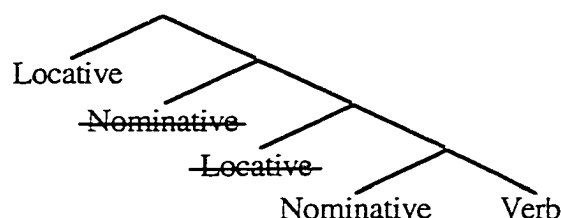
Consider next the passive constructions, (37a) and (39b), which are repeated below in (50) and (48), respectively. As discussed above, both Locative-Nominative and Nominative-Locative orders are ambiguous. My proposal is that this is so because the passive verbs do not license (Nominative) Case of their complements, and the complements (the Nominative phrases) must raise to the Spec of TP, leaving a copy in the base-generated position. The result of this operation is the Nominative-Locative order, shown in (48). Since there are two copies of the Nominative phrase, one above Locative phrase and one



copies of Nominative phrase, which is not relevant here since they do not give us new LF interpretation.)

- (50)      *Dokoka-ni<sub>j</sub>      dono-hon-mo(-ga)      Dokoka<sub>j</sub>      dono-hon-mo<sub>i</sub>*  
              *Somewhere-Loc<sub>j</sub> every-book-also(-Nom) somewhere<sub>j</sub> every-book-also<sub>i</sub>*  
              ↑  
              ok-are-ta  
              place-Pass-past  
              ‘Every book was placed somewhere’  
              somewhere > every book  
              every book > somewhere

- (51) a. LF1      somewhere[every-book [<sub>VP</sub> somewhere ~~every-book~~ was-placed]]
- 
- b. LF2      [somewhere [every-book [<sub>VP</sub> ~~somewhere~~ ~~every-book~~ was-placed]]]
- 
- c. LF3      somewhere [every-book [<sub>VP</sub> somewhere every-book was-placed]]
- 
- d. LF4      [somewhere [~~every-book~~ [<sub>VP</sub> ~~somewhere~~ every-book place-Pass]]]



Similar Case licensing abilities of these two classes of verbs are observed in English as well. Let us consider *there*-construction. It is possible to have the *i*-subject of the Unaccusative verb as the associate of *there* in *there*-construction, as shown in (52a). It is not possible, however, to have the derived subjects of the passive verbs as the associates of *there*, as shown in (52b) (Lasnik 1992).<sup>27</sup>

- (52) a. There was a man in the room.  
 b. \*There was hit a man.  
 c. A man was hit.

When we have an existential construction with *be*, as in (52a), the associate of the expletive, *a man*, may remain in the post-verbal position, presumably, the base-generated position.<sup>28</sup> In (52b), on the other hand, the verb is in the passive form, and it does not license the Case of its base-generated object, *a man*. *A man* must raise to the Spec of TP, and in that position, the DP gets its Case licensed, as we can see in the grammatical (51c).

<sup>27</sup> *There*-construction with a passive verb is available in a different form.

(i) There was a man hit

For concreteness, let us assume here that *a man* is getting its Case licensed by the verb *be*, rather than the passivized verb, as proposed by Lasnik (1995). (See more discussion on this construction later on in this chapter (Section 2.2.2.3).)

<sup>28</sup> Although Lasnik (1994) maintains that Partitive Case of the associate is licensed by the verb, as the original proposal by Belletti (1988) and Lasnik (1992), he proposes that at least *be* does not license Partitive Case of the associate in complement position, and as a result the associate of *there* raises to the Spec of higher projection, AgrOP.

The unavailability of *there*-construction with Passive is the result of the inability of passive verbs to license the Case of their internal arguments. The Nominative phrase of the passive construction has to raise overtly to get its Case licensed.<sup>29</sup>

#### 2.2.2.2 Belletti (1988)

Let us now review Belletti (1988). Following Perlmutter (1978), Burzio (1986), and Belletti and Rizzi (1982), Belletti (1988) assumes that the arguments of the unaccusative verbs, such as *arrive*, *arise*, and *be*, are base-generated in the complement position. The difference between unaccusative verbs and transitive verbs is that unaccusative verbs do not license Accusative Case of their complements, whereas transitive verbs do. A question she asks is whether unaccusative verbs lack any kind of Case licensing ability. Her proposal is that unaccusative verbs do license Case of their complements, namely, Partitive Case.

She makes four points in this paper. One is to propose that the unaccusative verbs do not assign structural Case, although they have the capability of assigning Partitive Case. Second point is that Partitive Case is an inherent Case. Hence, it is assigned along with a theta-role assignment by the verb, in Head-Complement relation. Third, there is no Case Transmission operation at work, contrary to the proposal by Safir (1982) among others. And fourth, Partitive Case is responsible for “core” manifestation of the Definiteness Effect.

Let us begin with a discussion of the Definiteness Effect and Partitive Case assignment. As is well-known, English *there*-construction exhibits the Definiteness Effect,

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<sup>29</sup>There is an interesting question with the scope interaction between Negation and *many*. I will discuss this in the appendix.

as shown in (53) and (54). Belletti assumes that whenever we find the Definiteness Effect, the ungrammaticality can be traced back to Partitive Case assignment. This, she claims, is due to the incompatibility between Partitive Case and the definite NPs.

- (53) a. There is a man in the garden.  
(cf. A man is in the garden.)
- b. \*There is the man in the garden.  
(cf. The man is in the garden.)
- (54) a. There arose a storm here.  
(cf. A storm arose here.)
- b. \*There arose the storm here.  
(cf. The storm arose here.)

Assuming that the complement of an unaccusative verb is a bare NP, as proposed by Williams (1984), rather than a small clause, as proposed by Stowell (1981) and Safir (1982, 1985), among others, Belletti proposes that Partitive Case is assigned to [the man in the garden] in (53b). Since Partitive Case and definite NPs are incompatible, the sentence results in ungrammaticality.

Next, let us discuss the Case Transmission hypothesis for *there*-construction. In *there*-construction, the canonical subject position, pre-verbal position, is occupied by the expletive *there*. Let us assume that *there* is in the Spec of TP.<sup>30</sup> This is the position where subjects are assumed to get their Case. A couple of questions arise here. One is how the associate of *there*, *i*-subject, gets its Case licensed, if Case is not licensed by the verb. For example, if the Spec of TP is where subjects get their Case assigned, we would expect that the Case of *i*-subjects may be assigned there, too. If Case assignment takes place overtly,

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<sup>30</sup>I do not assume that there is AGR projections.

this is a paradox: since *i*-subject is not in the Spec of TP, Case should not be available for it, resulting in Case Filter violation. But the sentence is grammatical. Another question is whether *there* is assigned Case in the Spec of TP. If a Case-assigner assigns Case only once to a NP, it cannot assign Case to both *there* and *i*-subject.

Safir (1982) among others has proposed that *there* receives Case in the Spec of TP. *i*-subjects are left Caseless, but get the Case that was assigned to *there* transmitted. Belletti, on the other hand, argues against this type of analysis. She argues that there is no Case transmission. If Case of *i*-subjects can be assigned via Case-transmission mechanism, *i*-subjects will receive Nominative Case, hence, we lose this account for the distribution of the Definiteness Effect. She proposes that the *i*-subject gets its Case licensed by the unaccusative verb.

Finally, let us discuss the inherent nature of Partitive Case. Belletti has a very strong argument for her claim that Partitive Case is an inherent Case. Since inherent Case is assigned along with theta-role assignment, when there is no theta-role assignment from the Case-assigning verb, as in the ECM construction, Partitive Case should not be available. That is, when V in (55) is an ECM verb and  $\alpha$  is a small clause, V cannot assign Partitive Case to NP<sub>2</sub>, due to the fact that V does not assign theta-role to NP<sub>2</sub> in this configuration.

(55) NP<sub>1</sub> V [ $\alpha$  NP<sub>2</sub> XP]



Let us see that this is indeed the case. First consider (56). The examples in (56) show that passive verbs assign Partitive Case in Italian.<sup>31</sup> We observe the Definiteness Effect in (56), hence, Partitive Case must be assigned to the *i*-subjects of passive verbs.

- (56) a. *È stato messo un libro sul tavolo.* (Belletti's (18a))  
 has been put a book on the table  
 'A book has been put on the table'
- b. *\*È stato messo il libro sul tavolo.* (Belletti's (18b))  
 has been put the book on the table

Next, let us see that ECM verbs license Accusative Case of the subject of a small clause in its complement position. Consider (57) and (58). We can identify the Case assigned to the subject of the small clause to be Accusative because of the Case of clitics in (57b) and (58b). Let us assume the familiar analysis of small clauses of Stowell (1981) and Chomsky (1981): the subject of a small clause gets a theta-role from the predicate/head of the small clause, the adjective. In (57) and (58), then, the subjects of the small clauses get theta-roles from *intelligente/intelligenti*, while receiving Case from *considerato/consideravo*, respectively.

- (57) a. *Ho sempre considerato [sc Gianni intelligente].* (Belletti's (67a))  
 I have always considered Gianni intelligent  
 'I have always considered Gianni intelligent.'
- b. *L'<sub>i</sub> ho sempre considerato [sc e<sub>i</sub> intelligente].* (Belletti's (67b))  
 him<sub>i</sub> I have always considered intelligent  
 'I have always considered him intelligent'
- (58) a. *Consideravo [gli studenti intelligenti].* (Belletti's (71a))

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<sup>31</sup>Belletti actually assumes that every verb has ability to assign Partitive Case to its internal argument. She does not, hence, attribute the unavailability of *there*-construction with passive verbs in English to the Partitive Case assignment. Rather, she attributes the ungrammaticality to another form of *there*-construction with passive verbs, namely, the one in (i) in footnote 27.

considered the students intelligent  
 'I considered the students intelligent.'

- b. Li consideravo [ \_\_\_\_ intelligenti] (Belletti's (71c))  
 them I considered intelligent  
 'I considered them intelligent.'

When we passivize the ECM verbs in (57a) and (58a), Belletti's analysis expects the result to be ungrammatical. Recall that according to Belletti's analysis, small clause subjects get Case from the matrix ECM verb in (57a) and (58a), and a theta-role from the head of the small clause, adjectives. When these ECM verbs are passivized, they cease to assign Accusative Case to the small clause subjects. Partitive Case is not available either, since *considerato* does not assign a theta-role to the subject of the small clause, and the adjectives do not license Case, either. The ungrammaticality of the sentence, then, is the result of a Case Filter violation. The passivized versions of (57a) and (58a) are, indeed, ungrammatical, as shown in (59). In (59a), no Case is available for *alcuni studenti*, since neither Accusative or Partitive Case is available for it. In (59b), on the other hand, *Alcuni studenti* gets Nominative Case in the subject position, resulting in grammaticality.

- (59) a. \*Sono considerati [alcuni studenti intelligenti]. (Belletti's (72))  
 are considered some students intelligent
- b. Alcuni studenti sono considerati [ \_\_\_\_ intelligenti]. (Belletti's (73))  
 some students are considered intelligent  
 'Some students are considered intelligent'

Even though I think that her proposal that unaccusative verbs assign Case to their complements is on the right track, there are some problems with her analysis that we have to discuss.

Problems arise when we consider the structure of *there*-construction and theta-role assignment to the associate of *there*. As mentioned earlier, there have been two analyses proposed for the nature of complements of unaccusative verbs in *there*-construction, as mentioned earlier. One is to treat the constituent following the verb *be* as a small clause (Stowell 1978, Chomsky 1991, Safir 1982, 1985, 1987 among others), shown in (60a), and the other is to treat it as a bare NP (Williams 1984), shown in (60b).

- (60) a. There is [<sub>SC</sub> [<sub>NP</sub> a man] [<sub>AP</sub> intelligent]]  
       b. There is [<sub>NP</sub> a man [<sub>AP</sub> intelligent]]

Lasnik (1992) points out that two problems arise if the complement of *be* in *there*-construction is a small clause. One is related to the inherent nature of Partitive Case. Recall that Belletti proposes that Partitive Case is assigned inherently. Inherent Case assignment has been assumed to take place along with theta-role assignment (Chomsky 1981). Theta-role assignment, on the other hand, is assumed to take place in the Head-Complement relation. That is to say that Inherent Case assignment must take place in the Head-Complement relation as well. Consider the structures shown in (60). If Stowell 1978, Safir 1982, 1985, 1987, Chomsky 1991 are right and the complement of *be* in *there*-construction is a small clause, we encounter a problem: the *i*-subject is not in the Complement position of the verb. Rather, it is in the Spec of Small Clause, as shown in (60a). (See Safir 1987 for detailed arguments for the small clause analysis in this construction.)

Another aspect of the same problem is the theta-assignment. It is not clear how the *i*-subject receives theta-role from the verb if we assume the Small Clause analysis of *there*-construction. If the complement of *be* is a small clause, the *i*-subject gets a theta-role from

the adjective. If it is the case that the *i*-subject receives a theta-role from the adjective, since an NP does not receive two theta-roles,<sup>32</sup> it must not be receiving theta-role from the unaccusative verb. That is, since there is no theta-role assignment from the verb to the *i*-subject, there should not be Inherent Case assigned from the verb to the *i*-subject, either. Hence, to maintain Williams' approach, we have to assume that the theta-role is assigned to the *i*-subject by *be*.

Belletti assumes that this problem does not arise if we assume that the constituent which follows the unaccusative verb is a bare NP, as proposed by Williams (1984). This is not entirely correct, however. There still remains some problem, namely, the status of *be*. *Be* does not seem to assign theta-role to its argument. If there is no theta-role assignment, there should not be Partitive Case assignment either.

Let me revise Belletti's analysis a bit to avoid the problems above. I have proposed that verbs license Case to a DP within a local domain, in section 2.2.2.1. I propose that verbs have specific Cases that they can license within their local domain. For example, transitive and ECM verbs license Accusative Case to a DP within their local domain. Unaccusative verbs, on the other hand, license Partitive/Nominative Case in their local domain. Let us assume the following structure for Japanese.

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<sup>32</sup>As Howard Lasnik (p.c.) points out, a question arises with the secondary predicate construction. Consider (i).

(i) John left angry.

In (i), *John* is the argument of both main predicate, *left*, and the secondary predicate, *angry*. There are two ways to think about this problem. One is to say that theta-roles are related to structural positions, hence, this problem does not arise, because whether we have a simple structure or the secondary predicate structure, the internal argument of the verb is base-generated in the same structural position. Another way to think about this problem is to say that the predicate modification rule, which combines the main predicate and the secondary predicate, reduces the two theta-roles to one (see more on the secondary predicate construction in Chapter 4). Either way, I would like to maintain that there is only one theta-role available for the argument NP.

### 2.2.2.3 Lasnik (1992, 1995)

Following Belletti's insight, Lasnik (1992) proposes that unaccusatives and *be* are "Partitive" Case licensors. Contrary to Belletti, who proposes that Partitive Case is inherent, Lasnik (1992) proposes that *be* licenses Partitive Case structurally. Consider the evidence for the structural nature of Partitive Case licensing. Recall that one problem with Belletti's analysis is that it is not clear how Partitive Case can be licensed inherently if the complement of *be* is a small clause, as Stowell (1981), Chomsky (1981), and Safir (1987) claim. According to Chomsky (1986), inherent Case is assigned/licensed in conjunction with theta-role assignment, which takes place in the Head-complement relation. If Partitive Case is licensed by *be*, and is an inherent Case, these entail that *be* and an item with Partitive Case (Partitive phrase) must be in the Head-complement relation. It must also be the case that *be* assigns a theta-role to the Partitive phrase. However, the Partitive phrase is usually not assumed to be in the complement position of *be*<sup>33</sup> and moreover *be* does not seem to assign a *theta*-role, as Lasnik (1992) points out.

Lasnik (1992) brings up evidence that what follows *be* is a small clause (Safir 1987). The evidence comes from the difference between an NP and a small clause with respect to the extraction out of them. Consider the examples in (61). In (61a), we see a sentence with an NP following a verb. As we see, extraction of *In which lake* is not possible out of an NP.

- (61) a. I discussed many fish in the lake.  
       b. \*In which lake did you discuss many fish.

---

<sup>33</sup>Though Williams (1984) assumes that the Partitive phrase is in the complement position of *be*.

This contrasts with the extraction out of a small clause, as shown in (62). In (62), a small clause follows the verb *want*. As we see in (62b), extraction of *In which lake* is possible out of the small clause.

- (62) a. I want [<sub>sc</sub> some fish in the lake].  
 b. In which lake do you want some fish.

The test, then, is whether we can extract *in which lake* from what follows *be*. As we see in (63b), it is possible.

- (63) a. There are many fish in the lake.  
 b. In which lake are there many fish

If what follows *be* is an NP (Williams 1984), extraction of PP should lead to ungrammaticality, as it does in (61b). This, then, shows that what follows *be* is not an NP, but rather, it is a small clause.

This brings up the question, once again: how does *be* license Partitive Case? The complement of *be* is the small clause, and the Partitive phrase is in the Spec of the small clause (Stowell 1981, Chomsky 1981). Furthermore, the theta-role of the Partitive phrase is not assigned by *be*, but rather, it is assigned by the predicate of the small clause.

Lasnik (1992) argues that this can be due to the difference between *be* and unaccusative verbs. Namely, *be* is purely “grammatical” whereas other unaccusative verbs are contentful. In the above *there*-construction with *be*, then, *be* assigns Partitive Case structurally, being semantically contentless (without a theta-role to assign to its complement).

Another question that Lasnik (1992) discusses is the difference between English and Italian in the following structures. In English, the associate of *there*, *a book*, cannot stay in the post-verbal position, as the ungrammaticality of (64a) shows, whereas in Italian, it can, as shown in (64b).

- (64) a. \*There has been put a book on the table.  
 b. E stato messo un libro sul tavolo.  
     has been put a book on the table

According to Belletti, every verb potentially has the ability to license Partitive Case in Italian. The difference between English and Italian, then, must be that in English, Partitive is not available with passive verbs. Hence, even though the passive verbs lack the ability to license Accusative Case, they retain the ability to license Partitive Case. Lasnik, on the other hand, proposes that the difference between the two languages is due to the Case licensing ability of the passive morpheme. That is, in Italian, but not in English, the passive morpheme has a Case associated with it, namely, Partitive Case.

Lasnik (1995) extends one of the proposals in Lasnik (1992) to unaccusative verbs: Partitive Case, even though it is inherent, is uniformly licensed in the Spec of AgrOP. Lasnik's (1992) assumption was that Case-licensing is an S-structure phenomenon. Lasnik (1995), however, rejects this assumption following Chomsky (1993): D-structure and S-structure as intermediate level of representation are dispensable and a theory where conditions are checked only at the interface levels, LF and PF, is more desirable. Hence, the Case Filter is checked only at LF (Chomsky 1993, Chomsky and Lasnik 1993). At LF, then, the associate raises to the Spec of AgrOP for Case licensing. Secondly, when the verb is *be*, the closest predicate with a theta-role raises to *be*, and *be* and the theta-role

assigner together license Case of the associate, Partitive Case being inherent. Partitive Case licensing succeeds when the theta-role assigner for the Partitive phrase is the closest predicate with a theta-role from *be* and hence, raises to adjoin to *be*. The ungrammaticality of Belletti's example of a passivized ECM construction in (59a), repeated here in (65), still follows from the inherent nature of Partitive Case. *Considerati* raises to *sono*, but the verbal complex cannot license Partitive Case to *alcuni*, since *considerati* does not assign a theta-role to *alcuni*.

- (65)        \*Sono considerati [alcuni studenti intelligenti].        (Belletti's (72))  
               are    considered   some    students   intelligent

Thirdly, the difference in grammaticality we observe in (64) is not due to the Case licensing (in)ability of passive verbs. Lasnik (1995) proposes that *be*, adjoined by the theta-role assigner (the passive verb), license the Case of the indefinite NPs, just as in other sentences with *be*. That is, Partitive Case is licensed to the indefinite NPs by *been* and *É*, after the passive verb raises to adjoin to the former. What is wrong with (64a), then, if the Case Filter is checked only at LF? Lasnik (1995) proposes that there is a functional head driving overt movement of the subject of the small clause. Noting that this is reminiscent of the EPP, Lasnik suggests that the functional head which is driving the overt movement in English is the passive verb (past participle), and that the English passive morpheme has a strong NP-feature. In (66), then, the Spec of the small clause is filled overtly, satisfying the EPP-like requirement of the small clause.

- (66)    a.    There has been a book put on the table.  
               b.    There has been [a book put *t* on the table].



The difference between English and Italian observed in (64) is that in Italian, the relevant NP-feature is weak, and because of procrastinate, the indefinite NP does not raise until LF, leaving the Spec of the small clause empty overtly.<sup>34</sup>

#### 2.2.2.4 *Unified analysis of Japanese and English Passives*

In this subsection, I reconsider the passive construction in Japanese, with Lasnik's (1995) analysis of *there*-construction with passive morpheme in mind. Recall that in section 2.2.1.3.2 using scope as a test, I showed that the base-generated internal argument (Nominative phrase) of a passive verb raises to a position higher than the base-position of a Locative phrase. To account for the difference between the unaccusative and passive constructions with respect to the raising of the Nominative phrase, I proposed in section 2.2.2.1 that passive verbs do not license Nominative Case to their internal argument, hence, the internal argument of the passive verbs must raise to the Spec of TP. The unaccusative verbs, on the other hand, license Nominative Case to their internal argument, hence, the internal argument (the Nominative phrase) does not raise to the Spec of TP.

Notice that the data from the passive construction in Japanese is compatible with Lasnik's (1995) theory of the existential construction with small clause headed by passive morpheme. In both English and Japanese, the internal arguments raise to a higher position

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<sup>34</sup>Another interesting paradigm, discussed in Lasnik (1995), is shown below:

- (i) a. There is likely to be a building demolished.
- b. There is a building likely to be demolished.
- (ia) should not be possible, since this seems to parallel the ungrammatical example in (ii).
- (ii)       There is likely someone to be in the park.
- He points out that we observe a difference in extraction possibility between (ia) and (ib), as shown in (iii).
- (iii) a.   How is there likely to be a building demolished?
- b. \*How is there a building likely to be demolished?

Lasnik suggests that in (ib), *a building likely to be demolished* is a reduced relative, hence, it is a complex NP. That (iiib) is ungrammatical follows, since in (iii) involves extraction of *How* out of an NP. Recall that Belletti (1988) came to a similar conclusion for the existential construction in general.

as shown by Lasnik's and my data respectively. Let us assume that Japanese also has the higher (functional) projection, headed by the passive morpheme, and furthermore, that this functional projection is located higher than the Locative phrase. This seems to be a reasonable assumption, given that the Locative phrase is an internal argument of the verb along with the Nominative phrase. The relevant NP-feature being strong, as is the case in English, the Nominative phrase of the passive construction in Japanese also raises overtly. That is, the position where the Nominative phrase in the passive construction raises overtly in Japanese is not the Spec of TP, but rather the Spec of the passive morpheme, just as Lasnik (1995) proposes for English. Since the locative phrase is c-commanded by the Nominative phrase after raising to the Spec of small clause, the scope ambiguity of passive sentences is still expected with this proposal.

In section 2.2.2.1, I proposed that the reason the Nominative phrase in the passive construction raises overtly is to get its Case licensed. This was proposed to account for the difference between the unaccusative and passive constructions with respect to the scope relations between the Locative and Nominative phrases. If we incorporate Lasnik's proposal for English and Italian, however, a different possible analysis of the unaccusative and passive constructions surfaces: the Spec of TP in both constructions is left empty in Japanese. Since the Nominative phrase of the passive construction raises over the Locative phrase, for an independent reason (for NP-feature checking), it might be that the Nominative Case feature is weak in Japanese, and this is why the Nominative phrase of the unaccusative construction does not raise over the Locative phrase.

One remaining question is whether the strong feature driving the overt movement is the same in Japanese and English. Lasnik (1995) suggests that what we see in English is an EPP-like phenomenon, and the relevant feature is a strong NP feature of the functional

head (passive morpheme). However, as Lasnik points out in a footnote, this assumption faces an empirical problem even just by looking at English. Namely, the two features—the one driving overt movement in English passives and the EPP feature in raising constructions—cannot be the same, as Youngjun Jang (personal communication, cited in Lasnik 1995) points out. If they were the same, the derivation of (66a) should crash for the same reason (67) is ungrammatical.

- (67) a. \*There seems a man to be in the garden.  
       b. There seems to be a man in the garden.

The examples in (67) show that an intermediate EPP-position in a successive cyclic raising structure where an expletive occupies the highest overt EPP-position cannot be filled by the associate of the expletive. The ungrammaticality of (67a) is explained in terms of Procrastinate in Chomsky 1993 and by postulating a preference for Merge over Move in Chomsky 1995. Here, I assume the approach of Chomsky 1995, though the problem is independent of the specific approach to (67). At the point of derivation where an element must fill the subject position of the embedded clause to satisfy the EPP requirement of a clause, there are two options: we can move *a man* to the Spec position, or merge an expletive to that position. If we take the former option, the derivation ends up with (67a): after moving the associate to fill the subject position of the embedded clause, the derivation goes on and merges the expletive to the Spec of the matrix clause. If we take the latter option, on the other hand, we obtain (67b): the expletive merges to fill the Spec of the embedded clause, and then, the expletive moves to fill the Spec of the matrix clause. The ungrammaticality of (67a) shows that we cannot move *a man* to the Spec of the embedded clause, and merge the expletive in the higher clause. Chomsky (1995) proposes that this

confirms that satisfaction of the EPP by Merge (of an expletive) is more economical, and therefore it is preferred over Move (of the associate). Assuming this account of (67), the problem with assuming that the relevant strong feature of passive morpheme in (66a), repeated here in (68a), is the NP-feature of the EPP, then, is that we should be required to merge expletive in the Spec of small clause, as we are in (67). That is, we should have the sentence in (68b), rather than (68a).

- (68) a. There has been a book put on the table.  
 b. \*There has been [ *t* put a book on the table.]

Lasnik suggests that this might be due to the selectional restriction on *there*: *there* cannot be introduced into just any NP position.

There is another problem, if we take Japanese into consideration. I showed that the Spec of TP can be left empty, using the unaccusative construction. This indicates that the NP-feature that is responsible for the EPP of a clause must be weak in Japanese. The same feature, however, must be strong in the head of small clause. This is so since the Nominative phrase of the passive construction must raise in Japanese. We would need to stipulate, then, that the NP-feature of T is weak but that of the small clause is strong in Japanese. If these are the same feature, namely, the NP-feature of a clause, we expect them to have the same property, hence, it is a puzzle that they behave differently,

Let us entertain an alternative hypothesis in which the above problems do not arise. Let us assume that the driving force for the overt movement of the associate/Nominative phrase is Case. I assume that the Case feature must be licensed overtly when it is strong, not subscribing to the view that the Case Filter is checked only at LF (Chomsky 1993, Chomsky and Lasnik 1993). I propose that Nominative Case in Japanese is a strong

feature, as well as Partitive Case in English. In Italian, on the other hand, Partitive Case is weak, hence, the raising does not take place overtly. As a result, the *i*-subject of the passive construction in Italian remains in-situ (post-verbally).

This proposal is consistent with the assumption that the EPP feature in Japanese is weak, since now the strong feature is the Case feature. It also solves the problem of Lasnik's analysis caused by the difference between (66) and (67) with respect to preference for Merge over Move, if we assume that an expletive can be inserted in a position where it checks either the NP-feature and Case (the Spec of matrix clause), or only the NP-feature (the Spec of non-finite clause): The Spec of the small clause is a Case position, but there is no NP-feature to be checked by the expletive. Since the NP-feature is necessary for the insertion of the expletive, it is predicted that the derivation in (68b) not be available.<sup>35</sup>

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<sup>35</sup>The remaining problem for the present analysis, to which I do not have an answer, is the arguments for the assumption that agreement features of a DP are licensed only when the Case feature of the same DP is still unchecked (Chomsky 1995, among others). For example, the following example becomes problematic:

(i) \*There seems to a strange man to be two men in the garden.

At LF, the phi-feature of *a strange man* should be able to move to T to check against the matching feature in T.

This problem might be related to the issue I discuss in Chapter 6. In Chapter 6, I propose that a feature in the unaccusative construction raises covertly. This raising must take place from the Nominative phrase. A question arises with this claim. According to Chomsky (1995), Case features are erased after checking because they are uninterpretable features. Hence, Case features do not exist after checking, and hence, should not be visible for computation. It seems, however, that a feature of the Nominative phrase can be triggered to move even after the Case feature is checked. (See Chapter 6 for more detail.)

There are two possibilities to make the Case feature of the associate/Nominative phrase still visible at LF. One is to say that the Case feature of these phrases does not get erased, but remain visible even after the checking, being inherent Case (Lasnik 1995b:8). The other is to say that the associate/Nominative phrase comes with two Cases: the inherent Case and the structural Case (Belletti (1988)). Even though overtly the inherent Case (Partitive Case in English and Nominative Case in Japanese) of the associate/Nominative phrase is licensed, the structural Case remains unchecked, hence, must be checked at LF. The structural Case of DP within PP, on the other hand, is licensed within PP, hence, the DP is not a candidate for covert raising. For concreteness, I assume in this thesis that Nominative Case of the Nominative phrases in the unaccusative construction do not get erased, hence, remain visible at LF.

Notice that the revision suggested in this subsection does not affect the main part of my proposal concerning the Case licensing ability of the unaccusatives and passives: unaccusative verbs license Case in their local domain, whereas passive verbs themselves do not.

#### 2.2.2.5 *Partitive vs. Nominative Case in the Unaccusative construction*

Let us next discuss the difference between Japanese on the one hand and Italian and English on the other hand. I propose that Nominative Case, not Partitive Case, is licensed by the unaccusative verbs in Japanese. Aside from the fact that *i*-subjects in Japanese show up with Nominative Case particles, one of the reasons for proposing that Nominative Case is assigned is the non-existence of the Definiteness Effect in Japanese, as shown in (69) and (70). If Partitive Case is associated with the Definiteness Effect, as Belletti (1988) proposes, and if Partitive Case is assigned to the Nominative phrases in the unaccusative construction in Japanese, we should observe the Definiteness Effect in these examples. In (69) and (70), both the Nominative-Locative ((69a, b) and (70a, b)) and Locative-Nominative ((69c, d) and (70c,d)) orders are shown. In either order, we do not find ungrammaticality even when the Nominative phrase is a definite DP, as in (69b, d) and (70b, d).

- (69) a. Otoko-ga Storrs-ni *t* iru.  
           man-Nom Storrs-Loc *t* is  
           ‘A man is in Storrs.’
- b. Uli-ga Storrs-ni *t* iru.  
           Uli-Nom Storrs-Loc *t* is  
           ‘Uli is in Storrs.’
- c. Storrs-ni otoko-ga iru.  
           Storrs-Loc man-Nom is  
           ‘A man is in Storrs.’

- d. Storrs-ni Uli-ga iru.  
 Storrs-Loc Uli-Nom is  
 'Uli is in Storrs.'
- (70) a. Otoko-ga Storrs-ni *t* tuita.  
 man-Nom Storrs-Loc *t* arrived  
 'A man arrived in Storrs.'
- b. Uli-ga Storrs-ni *t* tuita.  
 Uli-Nom Storrs-Loc *t* arrived  
 'Uli arrived in Storrs.'
- c. Storrs-ni otoko-ga tuita.  
 Storrs-Loc man-Nom arrived  
 'A man arrived in Storrs.'
- d. Storrs-ni Uli-ga tuita.  
 Storrs-Loc Uli-Nom arrived  
 'Uli arrived in Storrs.'

If Partitive Case is assigned to the *i*-subjects, as in English and Italian, we should observe the Definiteness Effect with the sentences with the arguments in the Locative-Nominative order. That is, the sentences in (69d) and (70d) should be ungrammatical, as the counterpart in English, shown below.

In English *there*-construction exhibits the Definiteness Effect when the *i*-subjects appear postverbally, as shown in (71b) and (72b).

- (71) a. There is a man in Storrs  
 b. \*There is Uli in Storrs  
 c. A man is in Storrs  
 d. Uli is in Storrs
- (72) a. There arrived a man in Storrs

- b. \*There arrived Uli in Storrs
- c. A man arrived in Storrs
- d. Uli arrived in Storrs

Assuming Belletti's Partitive Case licensing hypothesis, we can conclude that, in the examples in (69) and (70), Partitive Case is not assigned to the argument of the unaccusative verb.<sup>36</sup>

The null hypothesis is that the Case assigning ability of unaccusative verbs holds universally. Japanese unaccusative verbs differ from those in other languages such as English and Italian in that they can license Nominative Case.<sup>37</sup> That is, Nominative Case is licensed by the unaccusative verb in Japanese in the same way as Partitive Case is licensed in languages such as English and Italian. The DP, then, does not have a driving force to raise to another Case position, overtly or covertly. This explains why a Nominative phrase of the unaccusative construction remains within VP, taking Scope below the Locative phrase when it is not scrambled. In the passive construction, on the other hand, we observe overt movement of the argument, because the verb does not license Nominative Case of its Nominative argument.

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<sup>36</sup>We do not have to say that unaccusative verbs in Japanese never license Partitive Case, however. That is, unaccusative verbs may license Partitive Case optionally across languages. Partitive Case assignment seems to be optional, as discussed by Belletti (1988) and Lasnik (1992), in English, for example. Consider the examples below:

- (i) \*There is John in the room.
- (ii) John is in the room.

The example in (i) is ungrammatical because Partitive Case is assigned to a definite DP, *John*. The grammaticality of (ii) is mysterious, on the other hand, if Partitive Case assignment is obligatory.

<sup>37</sup>Unaccusative verbs do not license the Nominative Case in English or Italian. If they do, we expect no Definiteness Effect for the argument of the unaccusative, since there is no incompatibility between Nominative Case and definite NPs.



### 2.2.3 Remaining Question: Optional Partitive vs. Obligatory Nominative

It has been shown above that the Case-checking ability of Unaccusative verbs and passive verbs in Japanese patterns with that of English: an unaccusative verb can check the Case feature of its argument within its local domain in both languages, whereas a passive verb cannot, in either language. There is a difference between these two languages in the Unaccusative construction. Consider the following examples.

- (73) a. There was a man in the room  
b. A man was in the room

In English, the object of the unaccusative verb can raise to the Spec of TP overtly, as shown in (73b). The example (73b) is interesting in that the argument *A man* raises even though the unaccusative verb should be able to license the Case of *A man*. To be more exact, if the complement position of the unaccusative verb is necessarily a Case position, then it is not clear why *A man* can raise from that position. Let us suppose that the Case licensing of Inherent Case is optional, and that this is why Partitive Case of the *i*-subjects does not have to be licensed in the base-generated position, and the *i*-subject can raise further up to the Spec of TP in (73b).

Unaccusatives must discharge their Case feature in Japanese, however. This was shown above by the fact that the argument of an unaccusative verb does not raise overtly in Japanese. This was concluded from the data which involve the scope relation between the Locative phrase and the argument of the unaccusative verb, in which the Locative phrase unambiguously takes wide scope over the NP. If the unaccusative verbs in English and the ones in Japanese were completely the same, possessing the same Case licensing ability,

then we expect that the derivation parallel to (64b) should be available in Japanese as well.<sup>38</sup>

For the sake of discussion, let us suppose that overt raising of the Nominative phrase is possible in Japanese as well. In this derivation, the argument raises to the Spec of TP, and from the raised position, it c-commands the Locative phrase at the point of Spell-out, as shown in example (75b). The sentence will have the configuration of (74) (repeated from (18)), which is predicted to be ambiguous, having a possible reconstruction site.

(74) QP<sub>Bi</sub> ... QP<sub>A</sub> ... t<sub>i</sub> ... Verb

- (75) a. Daremo-ga<sub>i</sub> dokoka-ni t<sub>i</sub> ita  
 Everyone-Nom somewhere-Loc was
- b. NP<sub>i</sub>...Locative phrase...t<sub>i</sub>...Unaccusative Verb

We should be able to scramble the Locative phrase from its base-generated position in (75a), deriving (76b), which on the surface looks just like (32a), repeated here as (76a).

- (76) a. Dokoka-ni daremo-ga ita  
 Somewhere-Loc everyone-Nom was  
 'Everyone was somewhere'  
 somewhere > everyone  
 \*everyone > somewhere
- b. [dokoka-ni [daremo-ga<sub>i</sub> [t<sub>Loc</sub> t<sub>i</sub> ita]]]

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<sup>38</sup>Diane Lillo-Martin (p.c.) correctly pointed out to me that the question is why English allows both possibilities, raising the argument and not raising the argument, rather than why Japanese does not. The numerations for (73a) and (73b) are different, however, hence it is not that we have options between having the raising of the argument or not. That is, when the Numeration does not contain the expletive element, the argument has to raise, since otherwise, EPP will be violated. Hence, the question still is why it is that the Case licensing by the unaccusative verb in Japanese is obligatory whereas it is optional in English. I will come back to this point later.

c. Locative phrase ... NP<sub>i</sub> ... t<sub>Loc</sub> ... t<sub>i</sub> ...

The sentence with the configuration of (76c) is predicted to be ambiguous, since it is essentially the same as (74). Recall that movements create a reconstruction site, hence, the ambiguity arises in Japanese. In the derivation shown in (76b), there are two movements involved. Since there are possible reconstruction sites, one for the Nominative phrase and one for the Locative phrase, there should be more than one LF representation available, as in the case for the passive construction. (76a) is unambiguous, however, which indicates that (76c) is not a possible representation for (76a). This, in turn, indicates that overt raising of the object of an unaccusative verb for Case is not possible in Japanese. When the derivation shown in (76b) involves two applications of scrambling, on the other hand, the derivation is ruled out due to Economy conditions, as suggested in footnote 8.

Compare the unaccusative construction to the passive construction. In the passive construction, all the examples in (37a), (37b), (39a), and (39b), which are repeated here in (77) and (78), are ambiguous.

(77) a. Dokoka-ni dono-hon-mo(-ga) ok-are-ta. (=37a)  
 Somewhere-Loc every-book-also(-Nom) place-Pass-past  
 'Every book was placed somewhere.'  
 somewhere > every book  
 every book > somewhere

b. Dono-hon-mo(-ga) dokoka-ni ok-are-ta. (=39a)  
 Every-book-also(-Nom) somewhere-Loc place-Pass-past  
 'Every book was placed somewhere.'  
 somewhere > every book  
 every book > somewhere

(78) a. Dono-heya-ni-mo nanika-ga ok-are-ta. (=37b)  
 every-room-Loc-also something-Nom place-Pass-past  
 'Something was placed in every room.'

something > every room  
 every room > something

- b. Nanika-ga dono-heya-ni-mo ok-are-ta. (=39b)  
 Something-Nom every-room-Loc-also place-Pass-past  
 'Something was placed in every room.'  
 something > every room  
 every room > something

The crucial difference between the unaccusative and passive construction is exhibited by the contrast of (76a) versus (77a) and (78a). I have argued that the Nominative Case marked NP, the derived subject in the passive construction, raises overtly. This is parallel to the English passive construction.

- (79) a. \*There was hit a man.  
 b. A man was hit.

In English, the argument of the verb has to raise because when the verb is in passive form, it does not have an ability to license Case: If the base-generated object remains in its base-generated position overtly, the object does not get its Case licensed, hence, violates the Case Filter.<sup>39</sup> Belletti (1988) claims that all the verbs (in Italian) possess the ability to assign Partitive Case to their complements. Lasnik (1992), points out that this cannot be the case in English because of examples such as (79a). If passive verbs can assign Partitive Case, then (79a) should be grammatical as (68a) is. Hence, the passive verb in English does not assign Partitive Case (See Lasnik 1992).

The question, again, is, why is it that the Case licensing of the argument in the unaccusative construction in Japanese is obligatory whereas it is optional in English? One

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<sup>39</sup>Assumption here is that Partitive Case is licensed overtly.

possibility is that the difference comes from the type of Case licensed in these constructions. In English and Italian, the Case licensed is Partitive, which is claimed to be an “inherent” Case (Belletti 1988), whereas the Case licensed in Japanese is Nominative, which is a “structural” Case. That is, structural Case licensing is obligatory whereas inherent Case licensing is optional. This, however, has to be investigated further.<sup>40</sup>

### 2.3 Summary

We have seen in this section that an unaccusative verb in Japanese licenses Nominative Case of its object, whereas a passive verb does not. We have identified these Case licensing abilities of these verbs by considering the scope relation between the Locative phrase and the Nominative phrase in these constructions. This Case licensing ability of unaccusative verbs is similar to the conclusion arrived at by Belletti (1988) and Lasnik (1992, 1994, for English). The difference between Belletti (1988) and Lasnik (1992, 1994) and the proposal in this chapter is that Japanese licenses Nominative Case, rather than Partitive Case. This is so proposed to maintain Belletti’s proposal that Partitive Case and the Definiteness Effect are related, aside from the fact that the DPs in question are attached by the Nominative Case particle, *ga*. The proposal differ from Lasnik (1995) as well in that I assume that Nominative phrases of the unaccusatives (and *be*) are all licensed within VP, in the local domain of the unaccusative verbs.

I also discussed data from the passive construction which suggests that the Nominative Case feature of the DP in Japanese is strong. If it were weak, the Nominative phrase of the passive construction should not have to raise overtly to the Spec of small

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<sup>40</sup>This view on Structural Case vs. Inherent Case contrasts with the view presented in Freidin and Babby (1984), in which they propose that Inherent Case has to be assigned, whereas Structural Case does not.

clause, yielding an unambiguous scope relation between the Locative phrase and the Nominative phrase when they appear in the Locative-Nominative order.

### **Appendix: Non-uniform behavior of Quantifiers<sup>41</sup>**

When we consider morphologically simple quantifiers, such as *every*, *some*, *a*, *all*, *each*, *many*, *few*, and so forth, *many* and *few* seem to behave differently with respect to reconstruction below negation. Howard Lasnik (p.c.) points out that the example in (i) does not seem to have the reconstructed reading of *many*.

- (i) Many people weren't arrested at the rally.

Consider the paraphrases for (/i) in (/ii).

- (ii) a. Many people were such that they weren't arrested at the rally. many > not  
b. It wasn't the case that many people were arrested at the rally. not > many

The observation is that the reading in (iib) is missing from the sentence in (i).

This contrasts with other quantifiers, such as *every*, *a*, and so forth, which allow the reconstructed readings, sometimes requiring a special intonation pattern.

- (iii) a. Everyone wasn't arrested at the rally.  
b. A boy wasn't arrested at the rally.

Let us take (/iiib) as an example. In (iv) are paraphrases for (iiib).

- (iv) a. A boy was such that he wasn't arrested at the rally. a > not

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<sup>41</sup>I thank Uli Sauerland for much help with the preparation of this Appendix.

- b. It wasn't the case that a boy was arrested at the rally. not > a

Let us consider the contexts in which (iv) are true. (iva) is true in the following context. There was one boy who wasn't arrested. It might be that there are many boys who were arrested. Or there might be many other people who were arrested at the rally. But at least one boy wasn't arrested at the rally. That is, as long as there is one boy who wasn't arrested at the rally, the sentence can be truthfully uttered with the meaning in (iva). (ivb), on the other hand, is true when there wasn't a boy who was arrested. That is, if there was no boy arrested at the rally, the sentence can be uttered truthfully with the reading in (ivb). This is a puzzle if the flexible scope relations are the result of raising of one quantificational element over another. In the case of (i), the quantifier, *many people*, is base-generated below the negation and raises to the Spec of TP. *Many people* is predicted to have scope above and below negation. The sentence, however, seems to lack the reading in which *many people* takes narrow scope with respect to negation.

Let us consider (i) and *many* in more detail. What we want to show is that there is no reading in which *many* takes narrow scope below the negation. To give semantic evidence for the existence of the narrow scope, we need to come up with a situation in which the narrow scope would be true but the wide scope would be false. If a sentence is judged false in such a situation, we can conclude that the sentence lacks the narrow reading.

The notion *many* is more complex than other morphologically simple quantifiers because of two reasons. One is due to the ambiguity between Cardinal and Proportional readings of *many* in the sense of Partee (1988). The other is due to the context sensitive





people were arrested at the rally, if the meaning of *many* is *more than 50%*. The same situation is true with wide scope reading if the meaning of *many* is *more than 49%*.

- (vi) More than 49% were such that they weren't arrested at the rally.

The sentence in (vi) is true when 50% or more/50-100 people weren't arrested at the rally, or 0-50 were arrested at the rally. This requirement is identical to that of the narrow scope reading (va) where the meaning of *many* was assumed to be *more than 50%*. That is, the following sentences in (vii) are exactly equivalent for situations with 100 people.<sup>42</sup>

- (vii) a. More than 49% were such that he wasn't arrested at the rally. many > not  
b. It wasn't the case that more than 50% were arrested at the rally. not > many

More generally, we can say the following: *more than p%* with narrow scope reading is exactly equivalent to *more than (99-p)%* with wide scope reading.

- (viii) a. *More than (99-p)%* of the people were such that they weren't arrested at the rally. many > not  
b. It wasn't the case that *more than p%* of the people were arrested at the rally. not > many

The paraphrase in (viii a) is true if between  $((99-p)+1)\%$  and 100% weren't arrested at the rally. Assuming that there were 100 people at the rally, as above, this is to say that between  $(100-p)$  and 100 people weren't arrested at the rally, or between 0 and  $p$  people were arrested. That is, the sentence is true if 0 -  $p$  people were arrested, and it is false if between  $(p+1)$  and 100 people were arrested. How about the paraphrase in (viii b)? It is

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<sup>42</sup>I am simplifying the story here: the percentages here are based on the assumption that the total people at the rally was 100. Otherwise, the percentage could be 50.1%, for example.

true if between  $(p+1)$  and 100 people weren't arrested, or between 0 and  $p$  people were arrested.

It is shown above that it is possible to find a value  $q$ , namely  $(99-p)$ , which leads to the equivalent truth condition with the wide scope reading as having  $p$  as the value for narrow reading. What does this tell us? As long as the value  $q$  is also considered *many* in the given context, it is not possible to distinguish the narrow scope reading from the wide scope reading. That is, it is not possible to test if the narrow scope reading of *many* does or doesn't exist, if the meaning of *many* is the proportional one, and similar considerations apply to *few*.

Let us next consider the Cardinal reading of (i). As with the Proportional reading, let us simplify the meaning of *many* and assume that the meaning of *many* in the context is "more than 20 people" in the context as given in (ix).

(ix) More than 20 people weren't arrested at the rally.

The two scopal construals are shown in (x).

- (x) a. More than 20 people were such that they weren't arrested at the rally.
- b. It wasn't the case that more than 20 people were arrested at the rally.

The paraphrase in (xa) is true when there were at least 20 people who didn't get arrested, even if there were any number other people who did get arrested. For example in a situation with 100 people, (xa) is true if between 0 and 80 people were arrested. The paraphrase in (xb), on the other hand, negates that there were more than 20 people who were arrested at the rally. That is, (xb) is true if there were less than 20 people who were arrested at the rally.

As we see, we seem to obtain different truth conditions for the wide scope and narrow scope readings of *many*. One consideration, however, is that we need to avoid the situation in which the narrow scope reading entails the wide scope reading. This is so because if the narrow scope reading entails the wide scope reading, it is hard to test whether the narrow scope reading exists or not. Let us see when the narrow scope reading entails the wide scope reading.

Let us assume that the cardinality of the meaning of *many* is *more than*  $n$ , and  $M$  is the number of individuals satisfying the restrictor of *many*. In the following

- (xi) a. *More than*  $n$  were such that they weren't arrested at the rally.
- b. It wasn't the case that *more than*  $n$  were arrested at the rally.

(xia) is true when the number of people who weren't arrested at the rally is between  $(n+1)$  and  $M$ , or the total number of people who were arrested at the rally is between 0 and  $M-(n+1)$ . (xib) is true, on the other hand, when the maximal number of people who were arrested at the rally is  $n$ . Put differently, (xib) is true if the total number of people who were arrested at the rally is between 0 and  $n$ . (xib) entails (xia) if  $n \leq M-(n+1)$ . That is, when  $2n+1 \leq M$ , the entailment holds in such a way that it is hard to test whether the narrow scope reading exists. The question, then, is what the smallest  $n$  is. This will help us figure out when the narrow scope reading does not entail the wide scope reading. If  $n$  is 1, for example, the total number of relevant individual must be 3 or more. Between 0 and 3, then, we can test whether the narrow scope reading is available or not by considering the situations.

Another way of testing whether the narrow scope reading is available is to put the whole sentence under another negation, as shown in (xii). This way, we reverse the

entailment between the two readings, and hence, there will be many situations where we can test the existence of narrow scope reading of *many*.

(xii) If many students weren't arrested at the rally, the newspaper ignores it.

Under the assumption that 1,000 is considered *many* in either scope, a test is whether this sentence can be true in the situation where 1,000 students were arrested at the rally and 1,000 students weren't arrested at the rally, and the newspaper ignores the rally. If only the wide scope reading of *many* is available, the sentence is false in this situation. I have not been able to confirm this test, however, hence, the result is pending to the further research.

Though it is hard to prove that the narrow scope reading of *many* is not available, I would like to show that there is something to the claim that *many* does not reconstruct under negation, using binomial *each* (Burzio 1986) as a test. Consider (xiii). Though the data is far from clear-cut, half of the informants I consulted with get the contrast between (xiiia) and (xiiib). The meaning of sentences in (xiii) are supposed to be the ones in (xiv). For those who get the contrast, the sentence in (xiiia) is impossible whereas the one in (xiiib) is much better. That is, negation blocks the reconstruction of *each*.

(xiii) a. \*Many books each weren't given to the students.

b. Many books each were given to the students.

(xiv) a. Many books weren't given to each student.

b. Many book were given to each student.

This is reminiscent of Longobardi's (1989) example with *How many*, where reconstruction of *many* is barred when the movement of *How many* is over a weak island. Further investigation will be left to future research, however.

## Chapter 3: Case of Nominative Object

### 3.1 Introduction

In this chapter, I consider another instance of Nominative Case licensing. I will argue that Nominative Case of objects is licensed by Stative verbs and affixes, as proposed by Kuno (1973) among others, rather than by T, as proposed by Takezawa (1987) and Koizumi (1995).

Chomsky (1993), Chomsky and Lasnik (1993), Koizumi (1995), Lasnik (1994), Ura (1996) among others propose that Case licensing takes place only under the Spec-head relation between a DP and a functional Head.<sup>1</sup> The data in Chapter 2, however, suggest that the Nominative phrase of the unaccusative construction does not raise to a higher position, hence, does not get its Case licensed in the Spec of higher functional projection such as AgrSP or TP, as Koizumi (1995) and Ura (1996) propose. The evidence came from the difference between the unaccusative construction and the passive construction with respect to the relative scope relations between the Locative phrase and the Nominative phrases. In this chapter, I will show that the unaccusative construction is not the only construction in which Case of an argument is licensed without raising to the Spec of higher functional projection. I will argue that the Nominative Object construction is an additional evidence for the hypothesis that Nominative Case can be licensed by verbs without raising to a higher functional projection, contrary to Chomsky

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<sup>1</sup>See a different view in Bobaljik (1995), Bobaljik & Thráinsson (1998), Groat (1997), Thráinsson (1996), among others. In those works, as I will assume throughout this thesis, they claim that the Head-comp relation plays a role for checking.

(1993), Chomsky and Lasnik (1993), Koizumi 1995, among others. That is, we find supporting evidence for the proposed Case-checking domain, shown in (1).

- (1) Case is licensed within the local domain of a Case-licensing head.

Let us first discuss the basic facts from the Nominative Object construction. Consider (2) and (3). In regular transitive sentences, objects are Casemarked Accusative in Japanese, as shown in (2) and (3). In (2a) and (3a), the objects are Casemarked Accusative. In (2b) and (3b), on the other hand, the objects are Casemarked Nominative. As a result, the sentences in (2b) and (3b) are ungrammatical.

- (2) a. Kai-ga hon-o yon-da.  
Kai-Nom book-Acc read-past  
'Kai read a book.'
- b. \*Kai-ga hon-ga yon-da.  
Kai-Nom book-Nom read-past
- (3) a. Kai-ga hon-o kai-ta.  
Kai-Nom book-Acc write-past  
'Kai wrote a book.'
- b. \*Kai-ga hon-ga kai-ta.  
Kai-Nom book-Acc write-past

When the predicates are Stative or transitive attached to by a Stative suffix such as Potential “-e”, on the other hand, objects can be Case-marked Nominative (Kuno 1977, Tada 1992, Takezawa 1997, Koizumi 1993, 1995, among many others.), as shown in (4)-(6). In (4) and (5), examples with stative predicates are shown. Both predicates allow Nom-Acc pattern, as in the (a) examples, and Nom-Nom pattern, as in the (b) examples. In (6), examples with a transitive verb, *yomu* ‘read’, which the stative suffix *-e* ‘can’ is

attached to, are shown. This predicate allows both the Nom-Acc pattern and the Nom-Nom pattern.<sup>2</sup>

- (4) a. Kai-ga Erika-o sukida.  
Kai-Nom Erika-Acc likes  
'Kai likes Erika.'
- b. Kai-ga Erika-ga sukida.  
Kai-Nom Erika-Nom likes  
'Kai likes Erika.'
- (5) a. ?Kai-ga eigo-o waku.  
Kai-Nom English-Acc understand  
'Kai understands English.'
- b. Kai-ga eigo-ga waku.  
Kai-Nom English-Nom understand  
'Kai understands English.'
- (6) a. Kai-ga hon-o yom-e-ta.  
Kai-Nom book-Acc read-can-past  
'Kai could read a book.'
- b. Kai-ga hon-ga yom-e-ta.  
Kai-Nom book-Nom read-can-past  
'Kai could read a book.'

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<sup>2</sup>It is possible to have Dative-Subject and Nominative Object combination as well, as shown below:

- (i) a. Kai-ni eigo-ga waku.  
Kai-Dat English-Nom understand  
'Kai understands English.'
- b. Kai-ni hon-ga yom-e-ta.  
Kai-Dat book-Nom read-can-past  
'Kai could read a book.'

Not all the predicates allow the Dative-Nominative pattern, as shown in (ii).

- (ii) a. \*Kai-ni tomato-ga sukida.  
Kai-Dat tomato-Nom likes
- b. Kai-ga tomato-ga sukida.  
Kai-Nom tomato-Nom likes  
'Kai likes tomatoes.'

See Uchibori (1994) and the references cited there for analysis of the construction with Dative-subject.



The question is, how is Case of the Nominative object licensed? As mentioned above, I will argue in what follows that the Stative verbs and affixes license Nominative Case of the Nominative Objects. The evidence comes from the VP-preposing construction.

## 3.2 Previous Analyses

### 3.2.1 Tada (1992)

Tada (1992) makes an important observation; namely, that the choice between Nominative Case and Accusative Case affects the scope relation between the quantifier in objects and the potential affixes, as shown in (7).<sup>3</sup> In (7a), the object is marked Nominative. When the object bears Nominative Case, the object takes wider scope over the potential affix, as indicated in (7a). The reading we obtain in (7a) is as follows: it is only the right eye that John can close. The sentence can be uttered truthfully when John has problems closing his left eye, and it is only the right eye that he can close. Hence, he cannot even close his eyes together. In (7b), on the other hand, the object bears Accusative Case. In (7b), the potential affix takes wide scope over the Accusative object: it is possible for John to close only the right eye. This sentence can be uttered when John can wink with his right eye, while leaving his left eye open. He does not have problem closing both eyes at the same time.

- (7) a. John-ga migime-dake-ga tumur-e-ru.  
       John-Nom right-eye-only-Nom close-can-pres  
       ‘John can close only the right eye.’  
               only >> can  
               \*?can >> only

---

<sup>3</sup>We use the particle *dake* ‘only’ to make the object NP into a quantifier. Hence, when we see the Scope relation between the object and the potential affix, that is between the particle *dake* and the latter.

- b. John-ga migime-dake-o tumur-e-ru.  
 John-Nom right-eye-only-Acc close-can-pres  
 'John can close only the right eye.'  
     \*only >> can  
     can >> only

As discussed in Chapter 2, I assume that the scope relations are represented on the LF-representation by c-command (May 1977, Aoun & Li 1993, etc.). That is, when there are two quantifiers, the one c-commanding the other takes wider scope. Let us briefly discuss the assumption here about the scope determination in Japanese, again. I assume that Japanese is a rigid scope language (Kuno 1973, Kuroda 1970, Hoji 1985, Aoun & Li 1993, etc.), as discussed in Chapter 2. In a rigid scope language, when the surface word order is the same as the base-generated one, the c-commanding quantifier takes wide scope over the c-commanded one, unambiguously. For example, when the subject and object are quantifiers in a sentence, and we have the subject-object word order, the subject takes wide scope over the object, unambiguously. When the surface word order is altered by overt movement, on the other hand, ambiguous scope relations emerge. If a sentence has the same quantifiers in subject and object as above and we have the object-subject word order, the ambiguity/flexibility between scope bearing elements arises. That is, both scopes, the object taking wide scope over the subject and the subject taking wider scope, become available.<sup>4</sup> I assume that an operation at LF which could change the scope relation (ex., Quantifier Raising) does not take place in Japanese.<sup>5</sup> Hence,

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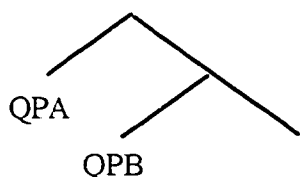
<sup>4</sup>This does not explain why (5a) is not ambiguous, however. Saito and Hoshi (1998) propose that when we have a Nominative object, we have restructuring of the transitive verb and the affix. They assume that the transitive verb and the stative affix merge syntactically, and take the Nominative object as an argument. According to this view, there is no reconstruction site for the Nominative Object below the stative affix. This successfully accounts for the lack of lowered reading of the Nominative Object. I do not commit to this view in this thesis, however.

<sup>5</sup>See Hornstein (1995) on similar approach to the rigidity effect.

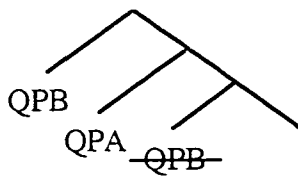
when we have the surface word order which parallels the base-generated word order of the sentence, we obtain the rigid scope since there are no movement operation that moves either of the arguments at LF in such a way to change the c-command/scope relation.

When we have overt movement which alters the surface word order, we obtain the flexible scope for the following reason. Let us assume the copy-and-deletion analysis of movement (Chomsky 1993). When there is no movement, we obtain the rigid scope because there is no option at LF with which copies to delete, as shown in (8a). When there is an overt movement, on the other hand, there will be (at least) two copies of the moved element: at the surface position and the base-generated position, as in (8b) and (8c). Depending on which copy of the moved element we delete, we get two scope relations.

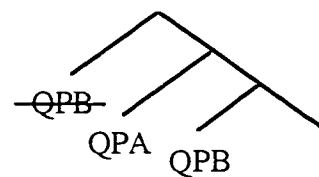
(8) a. QPA>QPB



b. QPB>QPA

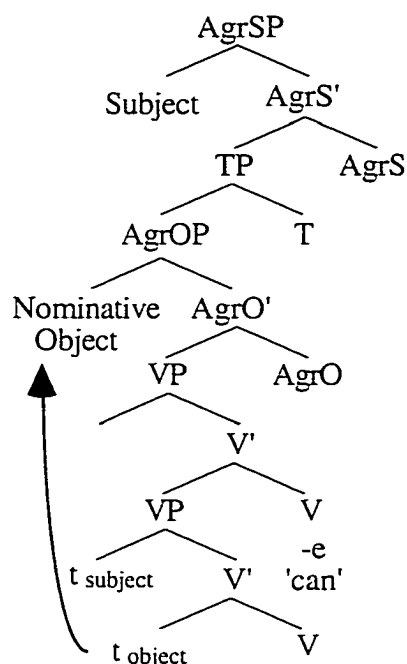


c. QPA>QPB



The paradigm in (7) shows that in the Nominative object construction, the object must be located higher in the structure than the potential affix, c-commanding the latter. When the object is marked Accusative, on the other hand, the object stays lower than the potential affix, being c-commanded by the potential affix. To account for this behavior of Nominative and Accusative object, Tada (1992) proposes that the Nominative object raises to the Spec of AgrOP overtly to get its Case licensed. Consider the structure shown in (9).

(9)



As can be seen in (9), after the Nominative object raises to the Spec of AgrOP, it c-commands the potential affix in V, and this way, the wide scope reading of the Nominative object becomes available.

There are some questions that arise with this analysis, however. One question is where the subject is with respect to the potential affix and object. If the subject base-generates within the most embedded VP, as the VP-internal Subject Hypothesis would suggest, the trace of the subject is lower than the potential affix or the raised position of the object, and hence, the object and potential suffix should be able to take wider scope over the subject. As shown in Chapter 2, overt movement, whether it is scrambling or Case movement, affects the scope relation between DPs. Consider the examples in (10). In (10a), the existential quantifier is interpreted as the subject and the universal quantifier is interpreted as the object. As (10a) shows, the wide scope reading of the Nominative

Object is not available. This shows that the base-generated subject position is higher than the raised position of the Nominative Object. To put it differently, the object does not raise as high as the base-generated position of the subject.

- (10) a. Dareka-ga daremo-ga nagur-e-ru.  
 someone-Nom everyone-Nom hit-can-pres  
 'Someone can hit everyone.'  
 someone > everyone  
 \*everyone > someone
- b. Dareka-ga daremo-o nagur-e-ru.  
 Someone-Nom everyone-Acc hit-can-pres  
 'Someone can hit everyone.'  
 someone > everyone  
 \*everyone > someone

Let us next consider (11) to see whether subjects and stative affixes show flexible scope. In both examples, the subject contains the particle *dake* 'only' which was used to identify the relative scope between the Nominative Object and the potential affix in examples such as (6). As can be seen in (11), the subject takes wide scope over the potential affix, unambiguously.

- (11) a. John-dake-ga hon-ga yom-e-ru.  
 John-only-Nom book-Nom read-can-pres.  
 'Only John can read books.'  
 only > can  
 \*can > only
- b. John-dake-ga Bill-ga nagur-e-ru.  
 John-only-Nom Bill-Nom hit-can-pres  
 'Only John can hit Bill.'  
 only > can  
 \*can > only

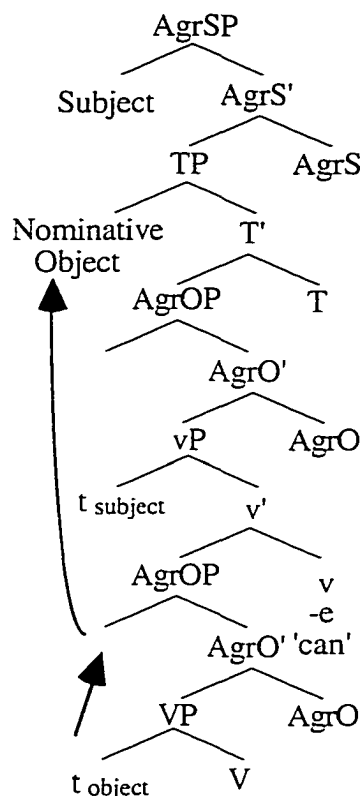
These examples, then, show that the base-generated position of the subject is higher than the position the potential affix occupies.

To summarize the examples in (10) and (11), we found that the base-generated position of the subject in the Nominative Object construction is higher than both the landing-site of the Nominative Object and the potential affix. What kind of phrase structure do we have with this construction, and where does the Nominative Phrase move to? These questions can be answered quite naturally if we modify the structure assumed in Tada (1992) using the Split-VP hypothesis (See chapter 5 of this thesis for more detail about the Split-VP Hypothesis.) I will come back to these questions in section 3.3.

### **3.2.2 Koizumi (1995, 1998)**

Koizumi (1995) proposes that Case is uniformly licensed in the Spec of functional categories. According to Koizumi (1995), Case of Nominative subjects is licensed in the Spec of AgrSP, whereas Case of Nominative objects is licensed in the Spec of TP, as shown in (12).

(12)



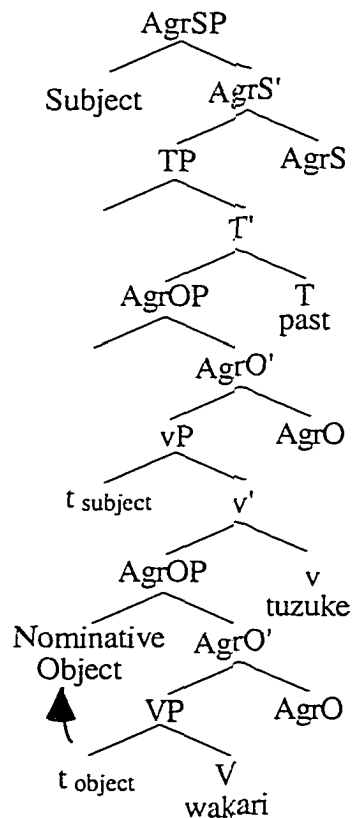
Koizumi (1995) discusses some problems with Tada's analysis. One is that according to Tada's analysis, two distinct categories, namely, T (with AgrS) and stative Verb (with AgrO), license Nominative Case. Since these two categories have nothing in common, except that they are supposed to be able to license Nominative Case, Koizumi argues that this makes the analysis dubious.

Another, and more crucial problem is the following paradigm, taken from Koizumi (1998). In (13), the most embedded verb is the stative verb, *wakaru* 'undersand', and the higher verb is a raising/control verb, *tuzukeru* 'continue'. The higher verb is not stative, hence, does not have a Nominative Case licensing ability. According to Tada's analysis, it is predicted that the Nominative Object takes scope narrower than the higher

predicate. This is so if the Nominative Case of the Nominative Object is licensed by a stative verb (after adjoining to AgrO). That is, the Nominative Object cannot get its Case licensed in the domain of the higher verb, hence, does not raise to the domain of the higher verb.

- (13) a. Mary-wa suugaku-dake-o wakari-tuzuke-ta.  
 Mary-Top math-only-Acc understand-continue-past  
 'Mary kept understanding only math.'  
 b. Mary-wa suugaku-dake-ga wakari-tuzuke-ta.  
 Mary-Top math-only-Nom understand-continue-past  
 'Mary kept understanding only math.'

(14)





According to Koizumi, however, the Nominative Object obligatorily takes wider scope than the higher verb. That is, the example in (13b) is true in the following context shown in (15). (15) shows that Mary studied many subjects during the 3 years in high school. She didn't do well in Chemistry during the first year, but started doing well in the second year. She did quite well in English the first two years, but lost interest and started not understanding it that well in the third year. Throughout the high school years, she liked Mathematics and understood it.

(15)

	1st	2nd	3rd
Chemistry		-----	
English	-----		
Mathematics	-----		

For the example in (13a), on the other hand, a different scope relation from the one for (13b) is available. (13a) can be true in the context shown in (16). (16) shows that Mary started high school understanding many subjects. At the end of the first year, however, she started not understanding English, and at the end of the second year, she started not understanding Chemistry. She did keep understanding Mathematics all through high school, however.

(16)

	1st	2nd	3rd
Chemistry	-----		
English	-----		
Mathematics	-----		

As Koizumi (1995, 1998) argues, this is a strong argument for his analysis: Nominative Object moves quite high in the structure. In fact, the Nominative Object is moving away

from the stative verb, since it is base-generated as sister to the stative verb, according to the structure shown in (14).<sup>6</sup>

### 3.3 Proposal

Even though Koizumi's example in (14) seems quite devastating for an analysis which argues that the stative verbs license Nominative Case, I propose that Nominative Object is licensed by the stative verbs/affixes, as proposed by Kuno (1973), Tada (1992), and many others. I will give two additional evidence for this analysis in this section, and some analysis for the problems Koizumi present against it.

#### 3.3.1 Relative Scope of Subject and Nominative Object

As discussed in (10) above, repeated here as (17), the subject takes wide scope over the Nominative Object, unambiguously.

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<sup>6</sup>There is an additional pieces of evidence that Koizumi (1995) discusses for his analysis. Consider (i).

(i) Kai-ga banana-dake-ga tabe-hazime-rare-nak-atta.

Kai-Nom banana-only-Nom eat-start-can-neg-past

'Kai couldn't start eating only bananas.'

only>neg

\*neg>only

This is true in the following context: Kai started eating solid food. He tried out many foods by now, and he eats rice, bread, tofu, carrots, spinach, etc. Somehow, though, he couldn't start eating bananas yet. This shows that the reading in which 'only' takes wide scope over the negation is available for this sentence. The other reading, the negation taking wide scope over 'only' is not available for this sentence.

Let us consider (ii) next, in which the object is marked Accusative.

(ii) Kai-ga banana-dake-o tabe-hazime-rare-nakatta.

Kai-Nom banana-only-Acc eat-start-can-neg-past

'Kai couldn't start eating only bananas.'

neg>only It is not the case that Kai started being able to eat only bananas.

This is true in the following context: Kai started eating solid food. His mother started out with combination of things, and now started giving him on its own. Kai can now eat carrots on their own, etc. But somehow, he couldn't start eating bananas on their own. This context represents the wide scope reading of negation over 'only'.

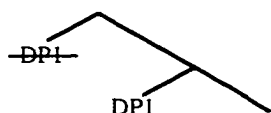
The example in (i) is problematic for Tada's analysis because the Nominative object is raising to a position which must c-command negation. This will be problematic for me as well since I adopt an analysis similar to Tada's. For Koizumi, this shows that Nominative objects raise to the Spec of TP. I will come back to this problem later. See footnote 10.

- (17) a. Dareka-ga daremo-ga nagur-e-ru.  
 someone-Nom everyone-Nom hit-can-pres  
 'Someone can hit everyone.'  
 someone > everyone  
 \*everyone > someone
- b. Dareka-ga daremo-o nagur-e-ru.  
 Someone-Nom everyone-Acc hit-can-pres  
 'Someone can hit everyone.'  
 someone > everyone  
 \*everyone > someone

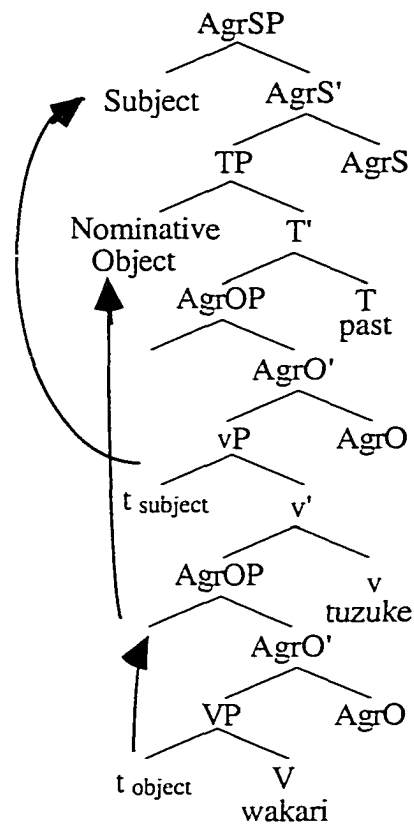
This paradigm, however, is not expected, according to Koizumi's theory: the base-generated position of the subject is lower than the position where Nominative Case of the Nominative Object is licensed, the Spec of TP. Consider the structure shown in (18). As shown in (18), the base-generated position of the Nominative Object is lower than that of the subject. The subject raises to the Spec of AgrSP, and the Nominative Object raises to the Spec of TP. I assume that the Nominative Case licensing takes place in overt syntax, as I discussed in Chapter 2. Hence, both instances of raising must be overt. At LF, it should be possible for the subject to reconstruct, taking lower scope than the Nominative Object.<sup>7</sup>

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<sup>7</sup>Recall that the assumption here, with respect to the reconstruction operation, is based on copy-and-deletion approach of movement: when there is a movement, the moved element leaves a copy in the base position. At LF, we can delete either the top copy (in the surface position) or the bottom copy (in the base position). What it means to reconstruct, then, is to delete the top copy of the moved element.



(18)



The fact that the sentences in (17) are unambiguous is problematic for Koizumi's analysis.

### 3.3.2 VP-preposing

The second evidence has to do with the VP-preposing construction. In Japanese, it is possible to move a unit which I assume to be a VP (Hoji, Miyagawa, and Tada 1989, Hasegawa 1991, Inagaki 1993, Yatsushiro 1996, 1997a, among others; see more discussion of this construction in Chapter 5 of this dissertation), as shown in (19) and (20), when the VP is followed by a focus particle like *sae* 'even'.

- (19) a. Kai-ga [warai]-sae sita.  
Kai-Nom laugh-even did  
'Kai did even laugh'
- b. [Warai]-sae Kai-ga sita.  
Laugh-even Kai-Nom did  
'Even laugh, Kai did.'
- (20) a. Kai-ga [sushi-o tabe]-sae sita.  
Kai-Nom sushi-Acc eat-even did  
'Kai did even eat sushi.'
- b. [Sushi-o tabe]-sae Kai-ga sita.  
Sushi-Acc eat-even Kai-Nom did  
'Even eat sushi, Kai did.'

Let us assume that a VP is fronted in this construction.

If only T licenses the Nominative Case of a DP, as Koizumi (1995) argues, and the Nominative Case is a strong feature in Japanese, as argued in Chapter 2, it should not be possible to front the Nominative Object, contained within the fronted VP. This is so because the Nominative Object will not be in the Spec of TP overtly: it is contained within a constituent, VP, and it is above TP.<sup>8</sup> The prediction, however, is not borne out. Consider (21) and (22). In (21b) and (22b), VPs which contain Nominative objects are preposed. As indicated, the sentences are grammatical (Tateishi 1993).

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<sup>8</sup>The fronted constituent cannot be a TP for the following reasons. First, the subject must move out of the TP, since the subject is a remnant in this construction. This movement will have to be scrambling, since the subject raises to the Spec of TP for Case, and there is no driving force for the subject to raise out of the TP. This brings up two problems: one is whether subjects can be scrambled. It is a standard assumption that subjects cannot scramble. Evidence for this assumption comes from the distribution of the Numeral Quantifier which is construed with the subject (see Kuroda 197x, Saito 1985, Miyagawa 1989, among others.). The other problem is that this kind of application of scrambling leads to the Proper Binding Condition effect, as discussed in Chapter 5 of this thesis. One could imagine a story in which the Nominative Object raises to the lower Spec of TP ("tacking in" in the sense of Richards 1997). After the raising, the lower TP raises to a higher position. This, however, begs a question whether it is possible to front the segment of a maximal projection. Hence, I assume that this construction involves VP-preposing, and TP cannot be fronted.

- (21) a. Kai-ga [eigo-ga hanas-e]-sae sita.  
 Kai-Nom English-Nom speak-can-even did  
 'Kai managed even to be able to speak English.'
- b. [Eigo-ga hanas-e]-sae Kai-ga sita.  
 English-Nom speak-can-even Kai-Nom did  
 'Even to be able to speak English, Kai managed.'
- (22) a. Kai-ga [hon-ga yom-e]-sae sita.  
 Kai-ga book-Nom read-can-even did  
 'Kai managed even to be able to read a book.'
- b. [Hon-ga yom-e]-sae Kai-ga sita.  
 Book-Nom read-can-even Kai-Nom did  
 'Even to be able to read a book, Kai managed.'

Since the Nominative Case of the Nominative object is a strong feature, as argued in Chapter 2, it has to be licensed overtly: the licensing of Nominative Case cannot wait until LF. What licenses Nominative Case of the Nominative object when the Nominative object is within the preposed VP? It should not be T, since the Nominative object is not in the Spec of TP, or the checking domain of T, overtly.

### 3.3.3 Preliminary proposal

I propose that Nominative Case of the Nominative Object is licensed by the stative affix. I propose that Case of an NP is licensed when the NP is in the local domain of a Case-licensing head. Let us define the local domain as follows:

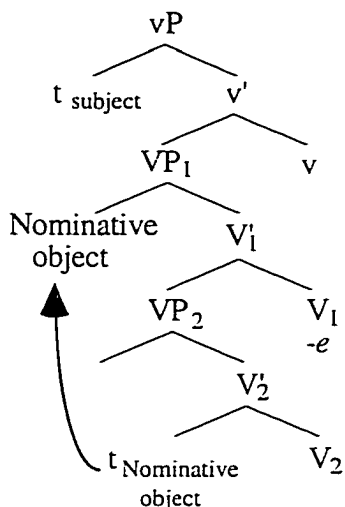
- (23) Local domain: specifier and complement of the head.

The proposal above and the definition of Local domain in (23) give us the Specifier position and the complement position as potential checking domain of a Case-licensing

head ((Bobaljik 1995: 267), Bobaljik & Thráinsson (1998), Groat (1997), Thráinsson (1996), among others).

In (21) and (22), then, the Nominative object raises to the checking domain of the potential affix, overtly. Let us follow Tada (1992) and assume that the stative affixes head their own VP projection. What happens in (21) and (22), is that the Nominative objects base-generate in the lowest VP, and from that position, they raise to the Spec of VP headed by the potential affix, as shown in (24).

(24)



It is predicted, then, that we can propose the VP headed by the potential affix (VP1) to the front of subject, resulting in the sentences in (21b) and (22b).

Note that this analysis does not encounter the problem the previous analysis did, namely, the scopal interaction between the Nominative object and the subject. This is so because Nominative object does not raise to a position which c-commands the subject, since the subject is base-generated higher than the Spec of VP1.

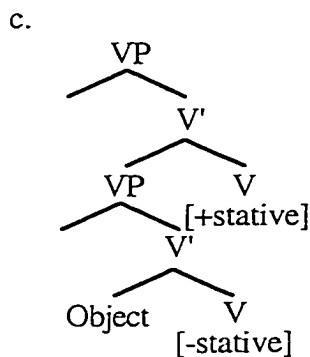
### 3.3.4 Complex Predicate construction in Japanese

Before reanalyzing Koizumi's example in (13), let us summarize the distribution of Nominative Case in the complex predicate construction.

Nominative Case shows up on objects when at least one of the verbal elements in a complex predicate is [+stative], as shown in (25)-(28). That is, it does not matter whether it is the higher verb, as in the case of (25), or the lower verb, as in the case of (26), that is [+stative]. As long as one of them (or both) is stative, the Nominative Object is licensed.

- (25) a. Kai-ga hon-ga yom-e-ta. [-stative]+[+stative]  
 Kai-Nom book-Nom read-can-past  
 'Kai could read books.'

- b. Kai-ga hon-o yom-e-ta.  
 Kai-Nom book-Acc read-can-past  
 'Kai could read books.'

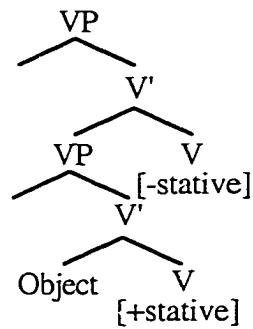


- (26) a. Kai-ga eigo-ga wakari-tuzuke-ta. [+stative]+[-stative]  
 Kai-Nom English-Nom understand-continue-past  
 'Kai continued to understand English.'

- b. Kai-ga eigo-o wakari-tuzuke-ta.  
 Kai-Nom English-Nom understand-continue-past  
 'Kai continued to understand English.'



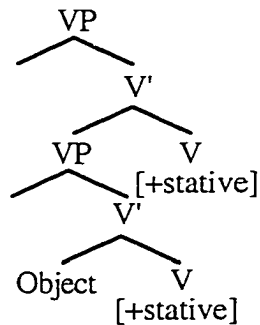
c.



- (27) a. Kai-ga eigo-ga wakar-e-ta. [+stative][+stative]  
 Kai-Nom English-Nom understand-can-past  
 'Kai could understand English.'

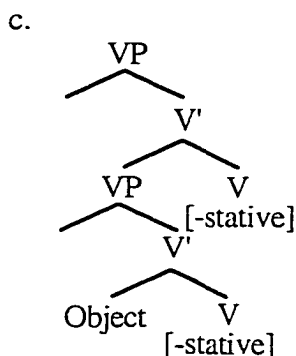
- b. Kai-ga eigo-o wakar-e-ta.  
 Kai-Nom English-Acc understand-can-past  
 'Kai could understand English.'

c.



- (28) a. Kai-ga hon-o yomi-tuzuke-ta. [-stative][-stative]  
 Kai-Nom book-Acc read-continue-past  
 'Kai continued to read books.'

- b. \*Kai-ga hon-ga yomi-tuzuke-ta.  
 Kai-Nom book-Nom read-continue-past



As (28) shows, when both verbal elements are [-stative], the object must bear Accusative Case.

### 3.3.5 Koizumi's example revisited

Let us now go back to Koizumi's example, shown in (13), repeated here in (29). Prima facie, this example seems quite a strong argument against the analysis in section 3.3.3, for the same reason that this example is problematic for Tada's analysis: the Nominative Object moves away from the local domain of the Case-licensing predicate, *wakaru*, and raises to some higher position.

- (29) Mary-wa suugaku-dake-ga wakari-tuzuke-ta.  
 Mary-Top math-only-Nom understand-continue-past  
 'Mary kept understanding only math.'

In fact, the sentence in (29) is problematic for any analysis which proposes that the stative verb/affix licenses Nominative Case. The evidence for the movement of Nominative Object comes from the scope of the Nominative Object: the Nominative Object takes wide scope over the predicate *tuzukeru* 'continue' which does not license Nominative Case, as shown in (30). In (30b), the lower verb is not stative, and the sentence is ungrammatical when the object is marked Nominative.

- (30) a. Mary-wa hon-o yomi-tuzuke-ta.  
 Mary-Top book-Acc read-continue-past  
 'Mary continued to read books.'
- b. \*Mary-wa hon-ga yomi-tuzuke-ta.  
 Mary-Top book-Nom read-continue-past

The examples in (31) show that Koizumi's point is independent of what the quantifier is and what the predicates are---in fact, the judgement is easier to make in (31). In (31), we have a complex predicate *wakari-sokonau* 'fail to understand'. The predicate *sokonau* is not stative, and hence, it is exactly the same pattern as in (35). As shown in (31a), when we have an Accusative object, the higher predicate *sokonau* 'fail' can take wide scope over the object. Hence, the sentence is true in a context in which John didn't understand at least one of the books, but did understand the rest of the books. When we have a Nominative Object, on the other hand, as in (31b), Nominative Object can only take wide scope over the higher predicate. The example in (31b), then, is true only in a context in which John understood none of the books.

- (31) a. John-ga subete-no hon-o wakari-sokonatta.  
 John-Nom all-Gen book-Acc understand-failed  
 'John failed to understand all the books.'  
 fail > all the books  
 \*all the books > fail
- b. John-ga subete-no hon-ga wakari-sokonatta.  
 John-Nom all-Gen book-Nom understand-failed  
 'John failed to understand all the books.'  
 \*fail > all the books  
 all the books > fail

Koizumi's claim—that the Nominative Object raises to a higher position than the Accusative object, moving away from the stative predicate—receives further support

from the new facts in (32) and (35).<sup>9</sup> In (32) and (35), we have a complex predicate *hanas-e-hazimeru* ‘start to be able to understand’. In addition, there is an adjunct, *murinaku* ‘without problem’, which can be associated with the lower predicate *hanase*, is in the structure, or with the higher verb *hazimeru*. First consider (32). In (32), the adjunct *murinaku* is placed after the objects. For (32), both readings indicated in (33) are available. The reading in (33a) shows that the adjunct, *murinaku* is associated with the higher predicate, *hazimeru*. The reading in (33b), on the other hand, indicates that the adjunct is associated with the lower, potential affix.

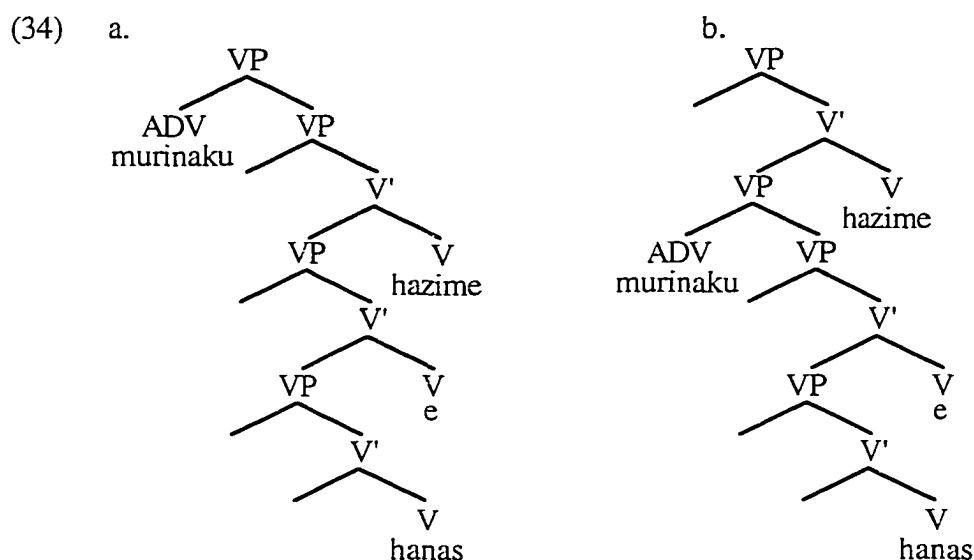
- (32) a. Kai-ga nihongo-o murinaku hanas-e-hazime-ta.  
           Kai-Nom Japanese-Acc without-problem speak-can-start-past  
           ‘Kai started being able to speak Japanese without problem.’  
       b. Kai-ga nihongo-ga murinaku hanas-e-hazime-ta.  
           Kai-Nom Japanese-Nom without-problem speak-can-start-past  
           ‘Kai started being able to speak Japanese without problem.’
- (33) a. high attachment reading (modifies the highest verb):  
           Without any problem, Kai picked up Japanese.  
       b. low attachment reading (modifies *can*):  
           Kai worked very hard, and now, Kai understands Japanese without any  
           problem.

Let us suppose the following structures for the two possibilities of adverb attachment. The reading in (33a) is associated with the structure in (34a), in which the adverb is attached to the VP headed by the highest predicate *hazimeru*. The reading in (33b), on the other hand, is associated with the structure in (34b), in which the adverb is attached to

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<sup>9</sup>So far, I have been able to consult with only four informants on the contrast between (32) and (35). Three of the informants agree with the contrast between adverbs placed to the left or to the right of the nominative object, shown in (32) and (35). Two of these also agree with the contrast between a Nominative and a Accusative marked object in (329), while the third finds the Accusative Casemarked object too awkward to judge.

the VP headed by the middle predicate *-e* ‘can’. According to Koizumi, Nominative Objects raise to the Spec of TP. Let us assume his analysis: Nominative Objects are above the VP projections. Since the Nominative Object is located higher than either position of the adverb, there is nothing to prevent the adverb from adjoining to either VP. This is why we get both readings in (33) in (32a). With Accusative Case-marker, the object does not raise. We have observed that this is the case in the base-line data shown in (7b), in which Accusative Case-marked object takes narrow scope under the potential affix. Since there is nothing that forces the adverb to be attached to one of the positions over the other, the adverb can attach to either VP, resulting in the availability of both readings shown in (33).



Next consider (35). In (29), the adverb is placed to the left of the objects. For (35a), both readings shown in (33) are available. For (35b), on the other hand, only the high attachment reading is available. That is, the low attachment of the adverb is blocked in (35b).

- (35) a. Kai-ga murinaku nihongo-o hanas-e-hazime-ta.  
 Kai-Nom without-problem Japanese-Acc speak-can-start-past  
 'Kai started being able to speak Japanese without problem.'
- b. Kai-ga murinaku nihongo-ga hanas-e-hazime-ta.  
 Kai-Nom without-problem Japanese-Nom speak-can-start-past  
 'Kai started bding able to speak Japanese without problem.'

This paradigm can be given a straightforward explanation if we assume that Nominative objects must be in a position quite high in the structure overtly (higher than the predicate *hazimeru*), and the adverb cannot scramble. If the adverb cannot scramble, it must have merged at the position it is at surface structure. That is, the adverb must be base-generated/merged higher than the surface position of the Nominative object, if it appears to its left as in (35b). The absence of low attachment in (35b) then shows that the overt position of the Nominative object is higher than that of the accusative object in (35a). For example, the contrast in (35) follows if the Nominative object moves to the matrix Spec of TP overtly. Therefore the paradigm in (35) confirms Koizumi's point that the Nominative object is in a higher structural position than the Accusative object.

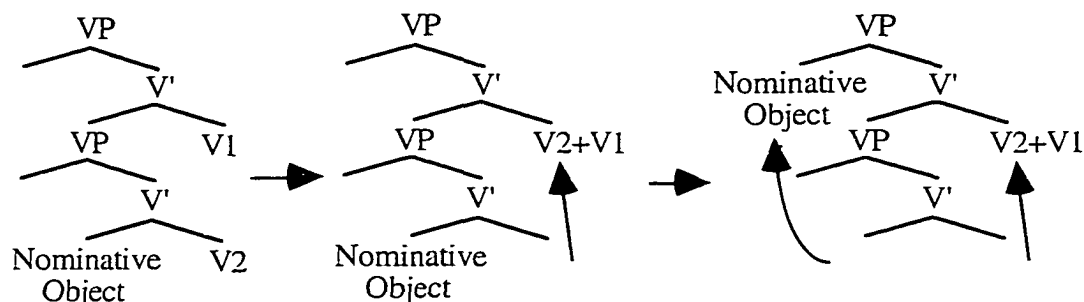
In addition, the paradigm in (35) is significant in that it confirms that Nominative Case must be licensed overtly, as I also argued in chapter 2: if this were not the case, Nominative object should be able to stay in-situ, hence, the adverb should be able to adjoin to any VP, even when it precedes the Nominative object as in (35b).

### 3.3.6 Revised Analysis

To account for the data in section 3.3.5, I would like to modify the analysis shown in 3.3.3 as follows. I propose that when there is a Nominative Object, the verb raises to adjoin to the higher verb, which is a restructuring verb, to create a complex verb. This is the case whether the lower verb is stative or higher verb is stative. After the lower verb

adjoins to the higher one, the Nominative Object moves into the local domain of the complex verb, presumably to the spec of the complex verb. This explains why the Nominative Object takes wide scope over either verbal element.

(36)



After the verb raising takes place, the Nominative Case of the stative verb licenses the Nominative Case of the object. If this is correct, the verb raising is an intrinsic part of the Nominative Object phenomena. It also must be the case that the verb raising in Japanese takes place overtly. This is so since Nominative Case of a DP must be licensed overtly, as argued in Chapter 2. If the second step in (36) is overt, the first step must be, too.

When object is Accusative, on the other hand, restructuring does not take place. Since restructuring does not take place, Accusative Case of the object is licensed as it is in a simple non-stative transitive context.<sup>10</sup>

<sup>10</sup>Recall that there was an additional problem Koizumi (1995) raises, which was discussed in footnote 6. Even though I do not have a definite explanation for this problem, I would like to suggest a way to save the analysis in this chapter.

The proposal in this chapter is that stative predicates/affixes license Nominative Case when they are in local configuration with a Nominative Case-marked DP. Let us suppose that Negation is restructuring. If this is the case, Negation will trigger than restructuring when there is Nominative object in a clause. That is to say that the two problems Koizumi (1995) raise against Tada-type analysis should receive the same treatment. This, however, needs further investigation.

### 3.3.7 VP-sae Construction

The claim that there is an overt verb raising in the case of a complex predicate with a Nominative Object receives additional support from the following examples, involving what I will call VP-sae Construction for the ease of exposition. This is presumably the structure before VP fronts in the VP-preposing construction (see chapter 5 for more discussion of the VP-preposing construction). Consider (37) and (38). In (37) and (38), the object in the VP-sae constituent exhibits the same Case distribution as in a simple construction without *-sae*. That is, when the verb within the VP-sae constituent is a non-stative transitive, the Case of the the object is obligatorily Accusative. When the verb within the VP-sae constituent is a stative verb, as in (38), on the other hand, the Case of the object is either Accusative ((38a)) or Nominative ((38b)).

- (37) a. John-ga [hon-o yomi]-sae si-tuzuke-ta.  
 John-Nom book-Acc read-even do-continue-past  
 'John continued to even read books.'
- b. \*John-ga [hon-ga yomi]-sae si-tuzuke-ta.  
 John-Nom book-Nom read-even do-continue-past
- (38) a. John-ga [hon-o wakari]-sae si-tuzuke-ta.  
 John-Nom book-Acc understand-even do-continue-past  
 'John continued to even understand books.'
- b. John-ga [hon-ga wakari]-sae si-tuzuke-ta.  
 John-Nom book-Nom understand-even do-continue-past  
 'John continued to even understand books.'

Consider next the examples in (39). In (39), the complex predicate has an additional layer: the potential affix, which is stative, is added to *tuzukeru* 'continue'. As the grammaticality of (39) shows, the Nominative Object is licensed by this complex predicate.



- (39) a. John-ga hon-ga yomi-tuzuke-rare-ta.  
 John-Nom book-Nom read-continue-can-past  
 'John could continue to read books.'
- b. John-ga hon-o yomi-tuzuke-rare-ta.  
 John-Nom book-Acc read-continue-can-past  
 'John could continue to read books.'

It is possible to make the VP-sae construction with only the most embedded predicate as the verb within the VP-sae constituent, as shown in (40). In this case, the Case marking options in the VP-sae construction are fewer than in the corresponding examples in (39). In (40a), the object within VP-sae is marked Nominative, whereas in (40b), the object is marked Accusative. We observe that when the object bears Nominative Case, the sentence is ungrammatical.

- (40) a. \*John-ga [hon-ga yomi-sae] si-tuzuke-rare-ta.  
 John-Nom book-Nom read-even do-continue-can-past
- b. John-ga [hon-o yomi-sae] si-tuzuke-rare-ta.  
 John-Nom book-acc read-even do-continue-can-past  
 'John could continue to do even read books.'

The contrast between (40a) and (40b) shows that -sae blocks the raising of the embedded verb to the higher V, which is a prerequisite for Nominative Case licensing of the Nominative Object in (40a). Since verb raising does not take place, the Nominative Object cannot be licensed in (40a). Now consider (41). (41) contains a Nominative Object. Notice, however, that verb raising is blocked in this case, since -sae is between the embedded (stative) verb and the higher verb. Nevertheless, Nominative Case of the Nominative Object is licensed within VP-sae. This is not expected, under Koizumi's theory. According to Koizumi's theory, the Nominative Object can be licensed only

when restructuring takes place. That is, after restructuring of the predicates takes place, the Nominative Object raises to the Spec of TP, which is the only position where Nominative Case of the Nominative Object can be licensed.

- (41)      John-ga    [eigo-ga        wakari]-sae        si-tuzuke-ta.  
           John-Nom English-Nom understand-even do-continue-past  
           'John continued to do even understand English.'

### 3.4. Conclusion

In this chapter, I have argued that unaccusatives is not the only strange construction in which Nominative Case is licensed not by T but by the verb. I argued that the Case of the Nominative Object is licensed by the stative verb/affix. That the Case of Nominative Objects is licensed by the Stative verb/affix is not a new proposal. What I tried to accomplish, then, is to give additional evidence for this approach, and give an explanation for the counter evidence presented by Koizumi (1995, 1998). I argued that the raising of the Nominative Object does take place, when the predicate is a complex one. The raising is not, however, to the Spec of TP, as proposed by Koizumi (1995, 1998), but rather to a local domain of a Case licenser: the local domain of the complex predicate after verb raising.

## **Chapter 4: Raising for Case**

### **4.1 Introduction**

In Chapters 2 and 3, I argued that in some environments, Nominative Case is licensed by the verbs, hence, the Nominative phrases do not raise to the Spec of TP. It was also argued that in the Passive construction, the Nominative phrase (the base-generated internal argument of the verb) raises to the Spec of TP because the verb lacks the ability to license Case to the argument. In Chapter 3, I argued that Nominative Objects raise to be in the local domain of stative affixes. I have argued in the previous two chapters that Nominative Case must be overtly licensed, hence, we observe overt movement of the Nominative phrases in the passive construction and Nominative object construction.

In this chapter, I will provide additional evidence for overt raising of Nominative phrase, using the secondary predicate construction. Specifically, I will show that subjects (external arguments) of transitive and unergative verbs raise to the Spec of TP. The argument is based on the contrast below. The examples in (1) are in the VP-preposing construction. In the VP-preposing (which is discussed in more detail in Chapter 5), a VP is fronted to the pre-subject position. As we see in (1), we have a contrast between the subject and object: the subject can be the remnant of the fronted VP, while the object cannot be.

- (1) a. [Hadaka-de katuo-o tabe]-sae Taroo-ga sita.  
 Naked bonito-Acc eat-even Taro-Nom did  
 'Even eat bonito naked, Taro did.'
- b. \*[Nama-de tabe]-sae Taroo-ga katuo-o sita.  
 Raw eat-even Taro-Nom bonito-Acc did

I show in this chapter that the correct analysis of the Secondary Predicate construction in Japanese can account for the contrast in (1), assuming that the subject raises overtly.

## 4.2 Secondary Predicate Construction

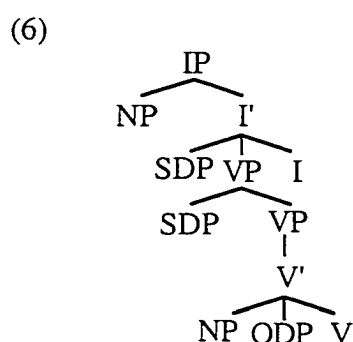
Let us start by discussing some data and a previous analysis of the Secondary Predicate construction.

### 4.2.1 Koizumi (1994)

Koizumi (1994) extensively discusses the secondary predicate construction in Japanese. We see some instances of subject-oriented and object-oriented depictive secondary predicate constructions in (2) and (3). In (2), the secondary predicates, *naked* and *hadaka-de* 'naked', predicate the subjects, *Uli*. In (3), on the other hand, the secondary predicates, *raw* and *nama-de* 'raw', predicate the objects, *bonito* and *katuo*, respectively. Paraphrases of (2) and (3) are shown in (4) and (5).

- (2) a. Uli ate the bonito naked.  
 b. Uli-ga hadaka-de katuo-o tabeta.  
 Uli-Nom naked bonito-Acc ate  
 'Uli ate the bonito naked.'
- (3) a. Uli ate the bonito raw.  
 b. Uli-ga nama-de katuo-o tabeta.  
 Uli-Nom rawbonito-Acc ate  
 'Uli ate the bonito raw.'
- (4) Uli, who was naked, ate the bonito.
- (5) Uli ate the bonito, which was raw.

Koizumi (1994) proposes that there are two positions for subject-oriented depictive secondary predicate (henceforth, SDP) and one position for object-oriented depictive secondary predicate (henceforth, ODP), as shown in (6).



Let us discuss some of the arguments for these positions.

#### 4.2.1.1 Position of ODP

Koizumi (1994) uses five tests to identify the structural positions of the ODP and the SDP: Numeral Quantifier-float, VP-preposing, Pseudo-cleft, Soo-su 'do-so'

replacement, and variable binding. All the tests confirm that ODP is within the VP. Let us consider some of the tests and examples he provides.

#### 4.2.1.1.1 NQ-float

The first test is the Numeral Quantifier-float. Consider the paradigm in (7). In (7), we see a difference between the time adverbial *kyoo* and an ODP. As (7a) shows, the time adverbial can intervene between the Numeral Quantifier and the DP the Numeral Quantifier is construed with. The ODP, on the other hand, cannot intervene between the Numeral Quantifier and the DP, as shown in (7b).

- (7) a. Gakusee-ga kyoo 3-nin hon-o katta.  
 Student-Nom today 3-CL book-Acc bought  
 'Three students bought a book today.'
- b. \*Gakusee-ga nama-de 3-nin katuo-o tabeta. (Koizumi's (18b))  
 Student-Nom raw 3-CL bonito-Acc ate

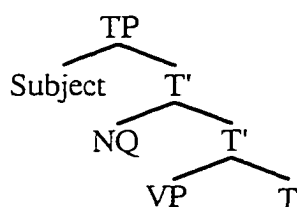
As (8) shows, the ODP can appear both on the left and on the right of the subject. That is, the ODP can appear in pre-subject or post-subject positions as long as it does not intervene between the Numeral Quantifier and the DP.

- (8) a. Gakusee-ga 3-nin nama-de katuo-o tabeta. (Koizumi's (20a))  
 Student-Nom 3-CL rawbonito-Acc ate  
 'Three students ate the bonito raw.'
- b. Nama-de gakusee-ga 3-nin katuo-o tabeta.  
 Raw student-Nom 3-CL bonito-Acc ate  
 'Three students ate the bonito raw.'

Koizumi assumes that when the ODP appears to the left of the object, this is due to scrambling of the ODP.

To account for the distributional difference between the time adverbial and the ODP, Koizumi utilizes Miyagawa's theory of Numeral Quantifiers. Miyagawa assumes that numeral quantifier are adjuncts to projections of VP, but must also stand in a local relationship with the DP they are construed with. Namely, Miyagawa proposes that a Numeral Quantifier and either the DP it is construed with or one of the traces of that DP must mutually m-command each other.<sup>1, 2</sup> When we have the Subject oriented Numeral Quantifier, then, this is because the Numeral Quantifier is base-generated, adjoining to T', as shown in (9).<sup>3</sup>

(9)



Following Chomsky (1986), Koizumi assumes that nothing can move and adjoin to a one-bar level node, while he does assume that an adjunct can be base-generated in that position. It follows from these two assumptions that an adjunct can intervene between the subject and the NQ only when it is base-generated in that position. The difference between the time adverbial and the ODP in (7), then, is that the former can be base-generated as adjoining to T', whereas the latter cannot.

<sup>1</sup>Miyagawa's (1989) original proposal is that the NP and the NQ must mutually c-command each other. For this proposal to work, we must assume a ternary branching structure, as Miyagawa (1989) does. In this section, I follow Koizumi in assuming a modified version of Miyagawa's proposal that uses only binary branching structures and assumes TP, rather than S.

<sup>2</sup>Recall that  $\alpha$  m-commands  $\beta$  when the first maximal projection dominating  $\alpha$  dominates  $\beta$ , and  $\alpha$  itself does not dominate  $\beta$ .

<sup>3</sup>Both Miyagawa (1989) and Koizumi (1994) assume that subjects are base-generated in the Spec of TP.

## 4.2.1.1.2 VP-preposing

Next test is the VP-preposing construction. In Japanese, VPs can be preposed when the verb is attached by a focus particle such as *sae* 'even', *mo* 'also', and a topic marker *wa* (Hoji, Miyagawa, and Tada 1989, among others; see more discussion on this construction in chapter 5). Assuming that only XP or X, but not X', can be the target of a (movement ) operation, we can identify which elements together form a maximal projection, using this construction. In other words, whatever can be fronted by this construction must form a constituent. In the case of this construction, the constituent which can be fronted using this construction is a VP.

As we see in (10), we can front the ODP along with the object and the verb. It is not possible on the other hand, to prepose the object and the verb, leaving the ODP as a remnant. This shows, then, that ODP is base-generated within VP, and cannot be base-generated outside of VP.<sup>4</sup>

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<sup>4</sup>As you will see in Chapter 5, it is not possible to scramble an element out of a VP and then front the VP. That is, the following derivation for (\$8) in which the ODP is scrambled out of the VP and then the remnant VP is preposed, is ruled out for a reason discussed in Chapter 5.

(i) [katuo-o    t<sub>i</sub>    tabe]-sae<sub>i</sub>    Taroo-ga    nama-de<sub>i</sub>    t<sub>i</sub>    sita.  
      bonito-Acc   t   eat-even   Taro-Nom   raw        t        did



- (10) a. Taro-ga nama-de katuo-o tabeta. (Koizumi's (31))  
 Taro-Nom raw bonito-Acc ate  
 'Taro ate the bonito raw.'
- b. \*[Katuo-o tabe]-sae<sub>i</sub> Taro-ga nama-de t<sub>i</sub> sita.  
 bonito-Acc eat-even<sub>i</sub> Taro-Nom raw t<sub>i</sub> did
- c. [Nama-de katuo-o tabe]-sae<sub>i</sub> Taro-ga t<sub>i</sub> sita.  
 raw bonito-Acc eat-even<sub>i</sub> Taro-Nom t<sub>i</sub> did  
 'Even eat the bonito war, Taro did.'

#### 4.2.1.1.3 Pseudo-cleft Construction

Pseudo-cleft is another test for VP constituency. This construction also shows which elements form a VP together: the focus of a VP-pseudo-cleft construction is restricted to the VP. Hence, the elements that can be the focus of a VP-pseudo-cleft construction form a VP. This is illustrated in the examples in (11).

- (11) a. John-ga sita no wa [sono hako-no naka-ni ringo-o ireru]-koto  
 John-Nom did NL top that box-Gen inside-in apple-Acc put-NL  
 da.  
 Cop  
 'What John did is put an apple in that box.' (Koizumi's (21a))
- b. \*John-ga [sono hako-no naka-ni ringo-o] sita no wa [ireru]-koto  
 John-Nom that box-Gen inside-in apple-Acc did NL Top put-NL  
 da.  
 Cop  
 (Koizumi's (21b))
- c. \*John-ga [sono hako-no naka-ni] sita no wa [ringo-o ireru]-koto  
 John-Nom that box-Gen inside-in did NL Top apple-Acc put-NL  
 da.  
 Cop  
 (Koizumi's (21c))

Now consider the examples in (12), which involve the ODP. As shown in (12), the ODP cannot be the remnant of the VP-pseudo-cleft construction. This shows, Koizumi argues, that the ODP is within the VP, and cannot be base-generated outside of the VP.

- (12) a. \*Taroo-ga nama-de sita no wa [katuo-otaberu]-koto da  
 Taro-Nom raw did NL Top bonito-Acc eat-NL Cop  
 (Koizumi's (28a))
- b. Taroo-ga sita no wa [nama-de katuo-o taberu]-koto da  
 Taro-Nom did NL Top raw bonito-ACC eat-NL Cop  
 'What Taro did is to eat the bonito raw.' (Koizumi's (28b))

#### 4.2.1.1.4 Soo-su 'do-so' Replacement

Koizumi (1994) proposes that pro-verbal form *soo-su* 'do-so' may replace a VP or V' in Japanese, as shown in (13)-(15). In the example (13b), the entire VP is replaced by *soo-su*. In (14b), the V' is replaced by *soo-su*. In (15), it is shown that something which is smaller than V' cannot be replaced by *soo-su*.<sup>5</sup>

- (13) a. Taroo-wa [sinroo-ni hanataba-o watasi]-ta. (Koizumi's (29))  
 Taro-Top groom-Dat bouquet-Acc hand-past  
 'Taro handed a bouquet to the groom.'
- b. Hanako-mo *soo-si*-ta  
 Hanako-also-do-past  
 'Hanako did so, too. (=handed a bouquet to the groom)'
- (14) a. Taroo-wa sinroo-ni [hanataba-o watasi]-ta (Koizumi's (30))  
 Taro-Top groom-Dat bouquet-Acc hand-past  
 'Taro handed a bouquet to the groom.'
- b. Hanako-wa sinpu-ni *soo-si*-ta  
 Hanako-Top bride-Dat so-do-past  
 'Hanako did so to the bride. (=handed a bouquet)'

<sup>5</sup>I discuss the ditransitive construction in Chapter 5. In Chapter 5, I argue that both Indirect object (Dative marked object) and direct object (Accusative object) head their own VP-projection. Hence, the generalization here, namely, that *soo-su* can replace either VP or V', can be restated as *soo-su* can replace only a VP.

- (15) a. Taroo-wa suika-o [tabe]-ta. (Koizumi's (31))  
 Taro-Top watermelon-Acc eat-past  
 'Taro ate the watermelon.'
- b. \*Ziroo-wa ringo-o soo-si-ta.  
 Ziro-Top apple-Acc so-do-past  
 'Ziro did so an apple. (=at)e'

Using this test, then, we can identify what is within VP or V' projection. As shown in (16) and (17), we obtain the same result as the previous sub-sections, using this construction: the ODP is within the VP-projection.

- (16) a. Hanako-ga Sentra-o sinsya-de katta. (Koizumi's (35))  
 Hanako-nom Sentra-Acc new-car bought  
 'Hanako bought a Sentra new.'
- b. Ziroo-mo soo-si-ta.  
 Ziro-also so-do-past  
 'Ziro did so, too (=bought a Sentra new)'
- (17) a. Hanako-ga sinsya-de Sentra-o katta. (Koizumi's (36))  
 Hanako-Nom new-car Sentra-Acc bought  
 'Hanako bought a Sentra new.'
- b. \*Ziroo-wa tyuuko-de soo-si-ta.  
 Ziro-Top second-hand so-do-past

#### 4.2.1.1.5 Summary of ODP

Let us summarize the evidence reviewed in this section. The Numeral Quantifier-float test is supposed to show whether an element is adjoined to I'. When something can intervene between the subject and the Numeral Quantifier construed with it, this test shows that the intervening item is base-generated adjoining to I'. The VP-preposing was used to test whether something is base-generated within a VP or not. When the item in question can be fronted along with the verb and the object (in the case of the transitive

construction), this is so because it is base-generated within the VP. The Pseudo-clefting of VP shows the same point. When something can be in the VP constituent being focused using this construction, this is due to the base-generation of this element within VP. *Soo-su* replacement also shows whether an element is base-generated within a VP, assuming that *soo-su* can replace VP or  $V'$ . By all these tests, it is shown that the ODP is base-generated within VP, and cannot be base-generated outside of VP (adjoining to  $I'$ ).

#### 4.2.1.2 Evidence for $V'$ -adjoined SDP

Using the same tests, Koizumi proposes that the SDP can be adjoined to  $V'$ . The evidence comes from the VP-preposing construction, Pseudo-cleft of VP, and *do-so* replacement.

As mentioned above, the assumption is that whatever can be preposed using the VP-preposing construction forms a VP. Let us see his examples. In (18a), the SDP is left as remnant of the preposed VP, along with the subject. In (18b), the SDP is part of the fronted VP. Both examples are grammatical.

- (18) a. [Katuo-o tabe]-sae<sub>i</sub> Taroo-ga hadaka-de t<sub>i</sub> sita.  
           bonito-Acc eat-even Taro-Nom naked t<sub>did</sub>  
           ‘Even eat the bonito, Taro did naked.’
- b. [Hadaka-de katuo-o tabe]-sae<sub>i</sub> Taroo-ga t<sub>i</sub> sita.  
           naked bonito-Acc eat-even Taro-Nom t did  
           ‘Even eat the bonito naked, Taro did.’

This paradigm shows, Koizumi argues, that the SDP may be base-generated within VP, as the acceptability of (18b) shows, and that the SDP may be base-generated outside of VP, as (18a) shows.

The Pseudo-cleft of VP shows the same pattern. What can be focused by this construction forms a VP. Consider (19). As shown in (19a), *katuo-o taberu* ‘eat the bonito’ form a constituent, VP. The SDP can be part of the focused VP, as shown in (19b), suggesting that the SDP can be base-generated within the VP. The SDP can also be base-generated outside of VP, as the grammaticality of (19a) indicates.

- (19) a. Taro-ga hadaka-de sita no wa [Katuo-o taberu]-koto da.  
 Taro-Nom naked did NL Top bonito-Acc eat-NL Cop  
 ‘What Taro did naked is to eat the bonito.’
- b. Taro-ga sita no wa [hadaka-de katuo-o taberu]-koto da.  
 Taro-Nom did NL Top naked bonito-Acc eat-NL Cop  
 ‘What Taro did is to eat the bonito naked.’

The last piece of evidence for the  $V'$ -adjoined position for SDP comes from *soo-su* replacement test. Recall from the discussion above that Koizumi assumes that *soo-su* can replace either VP or  $V'$ . As shown in (20) and (21), *soo-su* can replace either SDP+object+verb ((20)), or object+verb ((21)). This, then, shows that the SDP can be base-generated within VP: if *soo-su* can replace only VP or  $V'$ , then, the fact that the SDP can be replaced by *soo-su* indicates that it is base-generated within VP.<sup>6</sup>

- (20) a. Hanako-ga kimono-sugata-de suika-o tabeta.  
 Hanako-Nom kimono-dressed watermelon-Acc ate  
 ‘Hanako ate the watermelon in kimono.’
- b. Ziroo-mo soo-si-ta  
 Ziroo-also so-do-past  
 ‘Ziro did so, too. (=eat the watermelon in kimono)’

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<sup>6</sup>As mentioned here and above, Koizumi (1994) assumes that either VP or  $V'$  can be replaced by *soo-su*. If this is the case, this test merely shows that the SDP can be base-generated within VP, either in the  $V'$  adjoined position or in the Spec of VP. It does not show that the SDP can be base-generated outside of VP, like the VP-preposing construction and the Pseudo-cleft construction show.

- (21) a. Hanako-ga kimono-sugata-de suika-o tabeta.  
 Hanako-Nom kimono-dressed watermelon-Acc ate  
 'Hanako ate the watermelon in kimono.'
- b. Ziroo-wa hadaka-de soo-si-ta  
 Ziro-Top naked so-do-past  
 'Ziro did so naked. (=eat the watermelon)'

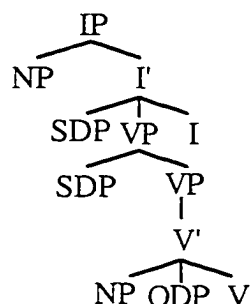
#### 4.2.1.3 Evidence for *I'* adjoined Subject-oriented Secondary Predicate

As we saw in the section 4.2.1.2, three tests, the VP-preposing construction, the Pseudo-cleft construction and *soo-su* replacement, show that the SDP can be base-generated within the VP. Two of the tests, the VP-preposing construction and the Pseudo-cleft construction show, in addition, that the SDP can be base-generated outside of the VP. Koizumi (1994) proposes that when the SDP is base-generated outside of VP, it is base-generated adjoining to *I'*. The last piece of evidence for base-generating the SDP at the *I'*-adjoined position comes from Numeral Quantifier Float. Recall that Koizumi (1994) assumes that the Numeral Quantifier is base-generated directly under *I'*. The prediction, then, is that if SDP can be base-generated, adjoining to *I'*, it should be able to appear between the Numeral Quantifier and the subject. As shown in (22), the SDP can show up between the Numeral Quantifier and the subject.

- (22) a. Gakusee-ga 3-nin hadaka-de katuo-o tabeta.  
 Student-Nom 3-CL naked bonito-Acc ate  
 'Three students ate the bonito naked.'
- b. ?Gakusee-ga hadaka-de 3-nin katuo-o tabeta.  
 Student-Nom naked 3-CL bonito-Acc ate  
 'Three students ate the bonito naked.'

From the results discussed in section 4.2.1.2 and 4.2.1.3, Koizumi concludes that the SDPs can be base-generated either within VP, or at an I'-adjoined position. The proposed structure is shown in (6), repeated here in (23).

(23)



#### 4.2.1.4 Questions with Koizumi (1994)

Though elegant, some questions arise with Koizumi's (1994) analysis of the Secondary Predicate construction. One is the assumption about the distribution of the Numeral Quantifier associated with the subject. If we adopt a version of the VP-internal subject hypothesis (the Split-VP hypothesis being the extension of the VP-internal subject hypothesis) as I do in this thesis, it is rather strange to assume that the Numeral Quantifier construed with a subject must be immediately dominated by a projection of I, as Miyagawa (1989) and Koizumi (1994) assume. According to the VP-internal subject hypothesis, the subjects are base-generated in the Spec of VP (or adjoined to VP, if we

assume Koopman and Sportiche's (1991) version of the VP-internal subject hypothesis). Tateishi (1989), Terada (1990), Yoshida (1990), Kitahara (1992), Kawashima and Kitahara (1993), among others, propose that the Numeral Quantifier and the NP which the Numeral Quantifier is construed with form a constituent. Given these hypotheses, we expect that the Numeral Quantifier construed with the subject to be in the Spec of VP, rather than an I'-adjoined position.

Another question is whether we have a general condition regarding the relationship between the main predicate and the secondary predicate, and the argument and the predicates. Koizumi proposes that the general condition is the one shown in (24), and it is stated in terms of c-government, which is defined in (24').

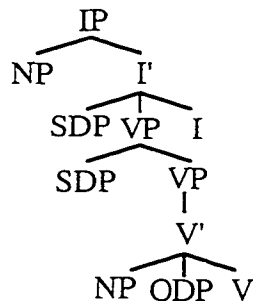
- (24) Principle of Predication  
 Predication relation between an NP and a predicate XP is licensed only if the following two conditions are satisfied at D-structure:
- (a) the XP is c-governed by the NP (antecedent government), and
  - (b) the XP is c-governed by a zero-level category (head government).
- (24') X c-governs Y if and only if
- (a) X c-commands Y, and
  - (b) X governs Y (there is no G, G a barrier for Y, such that G excludes X).

Koizumi's account is unsatisfactory for the following reasons. First, Koizumi's account relies on the notion of government. There is no theoretical motivation for the notion "government" (Chomsky 1995, among others), and one of the themes of the Minimalist Program is to try to explain the data which seem to support the notion "government", without using the notion. Secondly, Koizumi's analysis is forced to have ternary branching structures. This is because his analysis relies on the notion c-government. For c-government to hold between I and the SDP, the SDP must be either a



sister to I, as it is when it is directly dominated by a projection of I, or in a position which is asymmetrically c-commanded by I, as it is when it is adjoined to VP.<sup>7</sup> Without having a ternary branching structure, his analysis predicts only one position for the SDP, namely, the VP-adjoined position. This can be seen in the structure in (23), repeated below.

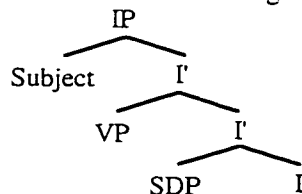
(23)



According to the condition in (24), the SDP must be c-governed by the argument NP and a zero-level head. The zero-level head that c-governs the SDP in either position, the VP-adjoined and I'-adjoined positions, is I. When the SDP is in the VP-adjoined position, we have the SDP as sister to the VP, as shown in (23). In this position, the SDP is c-governed by both the NP and I. When we have the I'-adjoined SDP, on the other hand, we are forced to have a ternary branching structure. This is so because the SDP must be

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<sup>7</sup>Unless we assume the following structure in which the SDP is a sister of I, and VP adjoining to the I'.

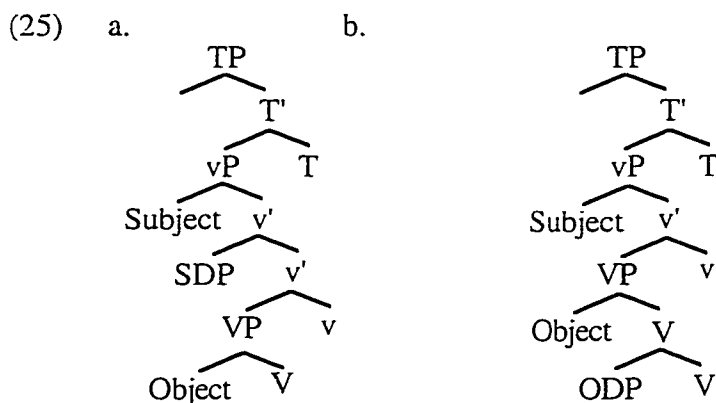


In the above structure, the SDP is c-covered by both I and the Subject. One empirical problem is that we predict the SDP to be able to appear post-verbally, according to this structure, which is not borne out. We could, of course, assume that Japanese IP is Head initial, but this seems too radical a break-through from a tradition to me. Note, furthermore, that VP is not a complement of I, again, departing from established assumptions.

sister to I to be c-commanded by I: the SDP cannot attach anywhere higher than the lowest I' in such a way to be sister to I. VP must be sister to I as well, however, and hence, we are forced to have a ternary branching. Thirdly, the question arises whether Koizumi's analysis is compatible with the VP-internal Subject Hypothesis, again. I show below that combining the VP-internal subject hypothesis and his analysis of the Secondary Predicate seems to require two different semantic mechanisms.

#### 4.2.2 Proposal

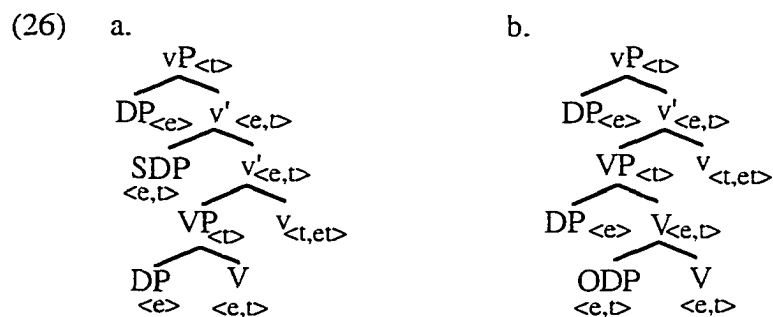
I propose the following structures for the SDP and ODP, shown in (25).<sup>8</sup>



The intuition behind these structures, especially the position of the secondary predicates, is that the arguments, the subject and the object, are the arguments of both SDP and VP, and ODP and the main verb (V), respectively. To express this intuition, I used the Predicate Modification rule (Heim and Kratzer 1998, Nissenbaum 1998). The Predicate Modification rule lets us combine two predicates of the same type to create a new

<sup>8</sup>The exact node dominating V and ODP in (25b) may be V'. Here I wrote V to express that the combination of the ODP and V produce a predicate of the same type as both the ODP and V, and that the object is the internal argument of both the ODP and V.

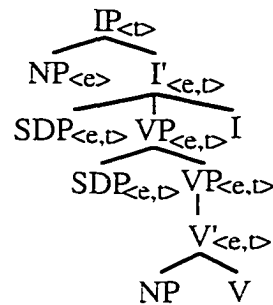
predicate of the same type. With Kratzer (199x) ('severing the external arg.'), I assume that a transitive verb starts out as type  $\langle e, t \rangle$ . The light verb  $v$ , then, takes an argument of type  $t$ , and introduces another argument position, by being type  $\langle t, \langle e, t \rangle \rangle$ . How the structures are built up is shown in (26). In (26a), the structure with the SDP is shown. The transitive verb, which is type  $\langle e, t \rangle$  takes an object, which is type  $e$ , as its argument, resulting in a VP which is type  $t$ . The light verb  $v$ , which is type  $\langle t, \langle e, t \rangle \rangle$  takes the VP, which is type  $t$ , as the argument, resulting in  $v'$ , which is type  $\langle e, t \rangle$ . At this point, the SDP, which is type  $\langle e, t \rangle$ , is combined with  $v'$  by the Predicate Modification rule. As a result of the Predicate Modification rule, we end up with a predicate of the same type, namely,  $\langle e, t \rangle$ , which takes the subject as its argument, ending up with  $vP$  of type  $t$ . In (26b), the structure with the ODP is shown. As I mentioned earlier, the intuition is that the object is the internal argument of both the ODP and the verb. For this structure, we first combine  $V$ , which is type  $\langle e, t \rangle$ , and the ODP, which is also type  $\langle e, t \rangle$ , by the Predicate Modification rule. The result of the application of this rule is a predicate of type  $\langle e, t \rangle$ . This predicate, then, takes the object as its argument, resulting in VP of type  $t$ . The light verb, which is type  $\langle t, \langle e, t \rangle \rangle$ , takes the VP as its argument, ending up with  $v'$ , which is type  $\langle e, t \rangle$ .  $v'$ , then, takes the subject as its argument, and  $vP$  ends up being type  $t$ .



This seems to me the most straightforward semantics for the secondary predicate.

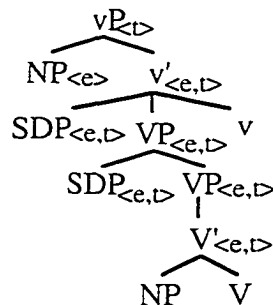
At this point, consider again Koizumi's analysis of secondary predicates, shown above in (23) and repeated here as (27) with the type of each node indicated to make clear the semantics. His analysis is compatible with the semantics for the secondary predicate I have proposed above, but only as long as we do not assume the VP-internal subject hypothesis as I argue below. In (27) as given, the VP-adjoined position for the SDP has the following semantics:  $V'$ , which is of type  $\langle e, t \rangle$ , is combined with the SDP, which is also of type  $\langle e, t \rangle$ , by the Predicate modification rule. As for the  $I'$ -adjoined SDP, the same mechanism applies: since VP is of type  $\langle e, t \rangle$ , we can combine the SDP, which is of type  $\langle e, t \rangle$  with VP by the Predicate modification rule.

(27)



As mentioned above, however, I assume the VP-internal Subject hypothesis in this thesis. If we do assume the VP-internal Subject hypothesis, we need to modify Koizumi's theory. There are many ways to translate Koizumi's account, assuming the VP-internal subject hypothesis. Since the whole point of this chapter is to argue for overt movement of the subject, I consider only one possibility which does not assume overt movement of the subject. Namely, one could say that the projection Koizumi labels IP in (27) is  $\underline{v}$ , as shown in (28).

(28)



The intuition accompanying  $\underline{v}$  is that it introduces the external argument position into the structure (Chomsky 1995 and others). Elaborating an earlier proposal of Marantz (1983), Kratzer (1997) proposes to capture this semantic contribution of  $v$  in a way that is reflected in the semantic types of phrases. Grossly simplifying her proposal I assume  $\underline{v}$  to

be of type  $\langle t, et \rangle$ . Then the types of the other nodes of the tree in (28) are the ones indicated in (53).

Another question is whether we want to allow the SDP to base-generate at the VP-adjoined position. Even though it is compatible type semantically, as shown in (28), the structure implies that the SDP is introduced to the structure before  $\underline{y}$  is introduced to the structure. This is somewhat counter intuitive, since, again, the intuition about the SDP is that it takes the argument together with the “main” predicate which takes the subject as its argument. In the structure in (26) (and (28)), the main predicate which takes the subject as its argument is  $\underline{y}$ .

Because of these questions, I will continue to assume my analysis of the secondary predicate. Let us see now how these structures fare compared to the ones proposed by Koizumi (1994).

#### 4.2.2.1 Accounting for Koizumi's Data

Let us first consider the VP-preposing construction. What we predict is that we should be able to move both VP and vP. VPs consist of Object, (ODP,) Verb. As we saw in sections 4.2.1.1.2 and 4.2.1.2, we can, indeed, prepose Object+Verb ((18a), repeated here as (29)) or Object+ODP+Verb when the constituent includes ODP ((9c), repeated here as (30)).

- (29) [Katuo-o tabe]-sae<sub>i</sub> Taroo-ga hadaka-de  $t_i$  sita.  
 bonito-Acc eat-even Taro-Nom naked  $tdid$   
 ‘Even eat the bonito, Taro did naked.’

fronted VP---Object+Verb

- (30) [Nama-de katuo-o tabe]-sae<sub>i</sub> Taroo-ga t<sub>i</sub> sita.  
 raw bonito-Acc eat-even<sub>i</sub> Taro-Nom t<sub>i</sub> did  
 'Even eat the bonito raw, Taro did.'

fronted VP---Object+ODP+Verb

It is also possible to prepose the SDP along with the object and the verb, as shown in (18b), repeated here as (31). Notice, however, that the subject is in the Spec of  $\bar{y}P$ . That is, *prima facie*, there is no XP that includes the SDP, but excludes the subject, according to the structures in (25).

- (31) [Hadaka-de katuo-o tabe]-sae<sub>i</sub> Taroo-ga t<sub>i</sub> sita.  
 naked bonito-Acc eat-even Taro-Nom t did  
 'Even eat the bonito naked, Taro did.'

I propose that this is evidence for the overt raising of subjects. I argued in Chapter 2 that Nominative Case has to be licensed overtly. If we assume that  $\bar{y}$  does not license Nominative Case of the subject, the subject has to raise to a Case position, namely, to the Spec of TP. After the subject raises, we have an XP which contains the SDP, the object and the verb,  $\bar{y}P$ . Hence, I propose that what is preposed in (31) is  $\bar{y}P$ , with a trace of the subject in its Spec.<sup>9, 10</sup>

Let us now consider the *soo-su* replacement. As discussed above, Koizumi (1994) assumes that *soo-su* can replace either V' or VP. The relevant examples are repeated below. The example (20), repeated here as (32), shows that *soo-su* can replace a constituent which contains the SDP, the object, and the verb. The examples in (21), repeated here as (33), on the other hand, show that *soo-su* can replace a constituent which

<sup>9</sup>The trace of subject does not trigger the Proper Binding condition effect, as discussed in Chapter 5.

<sup>10</sup>The same explanation can be given to explain the paradigm with the Pseudo-cleft construction. I will not repeat the discussion here.

contains the object and the verb, excluding the SDP. According to Koizumi, this shows that the SDP+object+verb combination makes up a VP, and that the object+verb combination makes up either a VP or V'.

- (32) a. Hanako-ga kimono-sugata-de suika-o tabeta.  
 Hanako-Nom kimono-dressed watermelon-Acc ate  
 'Hanako ate the watermelon in kimono.'
- b. Ziroo-mo soo-si-ta  
 Ziroo-also so-do-past  
 'Ziro did so, too. (=eat the watermelon in kimono)'
- (33) a. Hanako-ga kimono-sugata-de suika-o tabeta.  
 Hanako-Nom kimono-dressed watermelon-Acc ate  
 'Hanako ate the watermelon in kimono.'
- b. Ziroo-wa hadaka-de soo-si-ta  
 Ziroo-Top naked so-do-past  
 'Ziro did so naked. (=eat the watermelon)'

According to the analysis I propose in this chapter, on the other hand, the paradigms above show that the SDP+object+verb is a constituent, namely,  $\bar{v}P$ , after the subject raises. The combination object+verb, on the other hand, is a VP.

- (34) a. Hanako-ga Sentra-o sinsya-de katta. (Koizumi's (35))  
 Hanako-nom Sentra-Acc new-carbought  
 'Hanako bought a Sentra new.'
- b. Ziroo-mo soo-si-ta.  
 Ziroo-also so-do-past  
 'Ziro did so, too (=bought a Sentra new)'

#### 4.2.3 Subjects of Unergatives

Koizumi (1994) does not discuss the behavior of the SDP when we have the unergative construction. In this section, let us quickly go through the data to see that the



tests described above indicate that the subjects of unergatives behave the same way as the subjects of transitive verbs. As shown in (35), it is possible to have the SDP with unergative verbs.

- (35) a. Taroo-ga me-o tozi-te hasitta.  
           Taro-Nom eyes-Acc closed ran  
           'Taro ran with his eyes closed.'
- b. Taroo-ga hadaka-de soto-o aruita.  
           Taro-Nom naked outside walked.  
           'Taro walked outside naked.'

Let us go through the tests.

Let us first consider the VP-preposing construction. As you can see in (36) and (37), there are two possible structures. One is to front the SDP along with the verb ((36b) and (37b)). The other is to front the verb alone, leaving the subject and the SDP as remnants ((36c) and (37c)). According to the analysis in this chapter, this shows that subjects of unergatives raise out of vP, and vP, which contains the SDP and VP, can be fronted ((36b)). It is also possible to front the VP, as shown in (36c). This analysis is compatible with the analysis of unergative constructions by Hale and Keyser (1993), and Chomsky (1994), among others, which says that unergatives have the same structure as transitives. The difference between the unergatives and the transitives is that in the transitive construction, we have two overt arguments, object and subject. In unergatives, on the other hand, the head of NP complement of V incorporates into the verb, and there is only one overt argument, namely, the subject. The important point here is that unergatives do have two layers of verbal projections like transitives, rather than one like unaccusatives.

- (36) a. Taroo-ga me-o tozi-te hasiri-sae sita.  
Taro-Nom eyes-Acc closed run-even did  
'Taro did even run with his eyes closed.'
- b. Me-o tozi-te hasiri-sae Taroo-ga sita.  
Eyes-Acc closed run-even Taro-Nom did  
'Even run with his eyes closed, Taro did.'
- c. Hasiri-sae Taroo-ga me-o tozi-te sita.  
Run-even Taro-Nom eyes-Acc closed did  
'Even run, Taro did with his eyes closed.'
- (37) a. Taroo-ga hadaka-de soto-o hasiri-sae sita.  
Taro-Nom naked outside run-even did  
'Taro did even run outside naked.'
- b. Hadaka-de soto-o hasiri-sae Taroo-ga sita.  
Naked outside run-even Taro-Nom did  
'Even run outside naked, Taro did.'
- c. Soto-o hasiri-sae Taroo-ga hadaka-de sita.  
Outside run-even Taro-Nom naked did  
'Even run outside, Taro did naked.'

The Pseudo-cleft construction exhibits the same pattern as the VP-preposing construction, as shown in (38) and (39). We can focus the verb alone, as shown in (38a) and (39a), or we can focus the verb and the SDP, as shown in (38b) and (39b). This shows, again, that the subject of the unergative verb raises from the Spec of  $\bar{y}P$  to a higher projection, presumably the Spec of TP, hence, it is possible to focus VP, which contains just the verb, or  $vP$ , which contains both the verb and the SDP.

- (38) a. Taroo-ga me-o tozi-te sita-no-wa hasiru-koto da.  
 Taro-Nom eyes-Acc closed did-NL-Top run-NL Cop  
 'What Taro did with his eyes closed was to run.'
- b. Taroo-ga sita-no-wa me-o tozi-te hariru-koto da.  
 Taro-Nom did-NL-Top eyes-Acc closed run-NL Cop  
 'What Taro did was to run with his eyes closed.'
- (39) a. Taroo-ga hadaka-de sita-no-wa soto-o hasiru-koto da.  
 Taro-Nom naked did-NL-Top outside run-NL Cop  
 'What Taro did naked was to run outside.'
- b. Taroo-ga sita-no-wa hadaka-de soto-o hariru-koto da.  
 Taro-Nom did-NL-Top naked outside run-NL Cop  
 'What Taro did was to run outside naked.'

*Soo-su* replacement, again, shows the same point. We can replace the  $\underline{v}P$  by *soo-su*, as shown in (40) and (41). In (40) and (41), *soo-su* replaces the constituent which includes the SDP. That is, *soo-su* in (40b) replaced the constituent which includes the SDP, hence, the interpretation of the sentence is "Ziro ran with his eyes closed as well", rather than "Ziro ran as well."

- (40) a. Taroo-ga me-o tozi-te hasitta.  
 Taro-Nom eyes-Acc closed ran  
 'Taro ran with his eyes closed.'
- b. Ziroo-mo soo-si-ta.  
 Ziro-also so-do-past  
 'Ziro did so, too. (=ran with his eyes clos)ed'
- (41) a. Taroo-ga hadaka-de soto-o hasitta.  
 Taro-Nom naked outside ran  
 'Taro ran outside naked.'
- b. Ziroo-mo soo-si-ta.  
 Ziro-also so-do-past  
 'Ziro did so, too. (=ran outside nak)ed'

The examples in (42) and (43), on the other hand, show that *soo-su* can replace a constituent smaller than *vP*, which excludes the SDPs. This is shown by the interpretation and acceptability of (42b) and (43b). In (43b), for example, *soo-su* replaces just the verb. This can be seen by the interpretation of *soo-su* in the example. The meaning of (43b) is "Ziro ran outside in a kimono", rather than "Ziro ran outside in a kimono with Kanzasi in his hair."

- (42) a. Taroo-ga me-o tozi-te hasitta.  
 Taro-Nom eyes-Acc closed ran  
 'Taro ran with his eyes closed.'
- b. Ziroo-wa me-o ake-te soo-si-ta.  
 Ziro-Top eyes-Acc opened so-do-past  
 'Ziro did so with his eyes opened. (=ran)'

- (43) a. Taroo-ga kimono-sugata-de soto-o hasitta.  
 Taro-Nom kimono-dressed outside ran  
 'Taro ran outside in Kimono.'
- b. Ziroo-wa kami-ni kanzasi-o sasite soo-si-ta.  
 Ziro-Top hair-in Kanzasi-Acc put so-do-past  
 'Ziro did so with kanzasi in his hair. (=ran outside)'

The result of this section indicates that the subjects of the unergative construction behave the same way as the subjects of the transitive construction. They are base-generated in the Spec of vP, and raise overtly to the Spec of TP.

#### 4.2.4 Floating Quantifier and Secondary Predicate

To conclude this chapter, let us reconsider two paradigms from Koizumi's (1994) analysis: first, the freedom of order between Secondary Predicate and a Numeral Quantifier and secondly, the ungrammaticality of placing the ODP between the subject and the subject oriented Numeral Quantifier. I want to show that Koizumi's insights of the former paradigm can largely be carried over into the analysis of secondary predicates proposed above, while the latter paradigm requires a stipulation.

The examples in (44), repeated from (22), show that the linear order of the subject oriented Numeral Quantifier and the SDP is free.

- (44) a. Gakusee-ga 3-nin hadaka-de katuo-o tabeta.  
 Student-Nom 3-CL naked bonito-Acc ate  
 'Three students ate the bonito naked.'
- b. ?Gakusee-ga hadaka-de 3-nin katuo-o tabeta.  
 Student-Nom naked 3-CL bonito-Acc ate  
 'Three students ate the bonito naked.'

The examples in (45) make the same point for an object oriented Numeral Quantifier and an ODP.

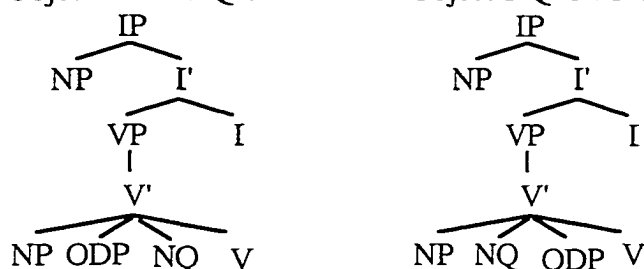
- (45) a. Taroo-ga katuo-o nama-de 3-biki tabeta.  
 Taro-Nom bonito-Acc raw 3-CL ate  
 'Taro ate 3 bonitos raw.'
- b. Taroo-ga kuruma-o sinsya-de 3-dai katta.  
 Taro-Nom car-Acc new 3-CL bought  
 'Taro bought three cars new.'

Koizumi captures the freedom of word order, using flat structures. Recall that according to Koizumi's analysis, the SDP can be base-generated adjoining to I' or VP. The Subject oriented Numeral Quantifier, on the other hand, is base-generated immediately dominated by projection of I. Therefore the structure (44a) is ambiguous between the structures in (46a) and (54a'), while (44b) must have the flat structure in (46b).

- (46) a. Subject-NQ-SDP      a'. Subject-NQ-SDP      b. Subject-SDP-NQ
- 

In effect, the flat structures he assumes always allow either order of SDP and NQ on Koizumi's analysis. For the paradigm (45) involving the object, both orders must be analyzed as flat structures on Koizumi's proposal, as shown in (47).

- (47) a. Object-ODP-NQ order      b. Object-NQ-ODP order



I propose that the free word order of Numeral Quantifier and Secondary Predicate is due to the similarity in nature of Numeral Quantifier and Secondary Predicate. Namely, it has been proposed that the Numeral Quantifier is a VP modifier (Dowty and Brodie 1984, Bobaljik 1995, Ishii 1998).<sup>11</sup> We could, then, analyze the Numeral Quantifier in the same way as the Secondary Predicate. Namely, as a predicate of type  $\langle e, t \rangle$  (or  $\langle \langle e, t \rangle, \langle e, t \rangle \rangle$ ). If this is correct, it also predicts that the ordering between the Numeral Quantifier and the Secondary Predicates be free, since the ordering of modifiers is generally free.

The second paradigm of Koizumi consists mainly of the example in (48) repeated from above. (48) shows that the ODP cannot intervene between the subject and a subject oriented Numeral Quantifier.

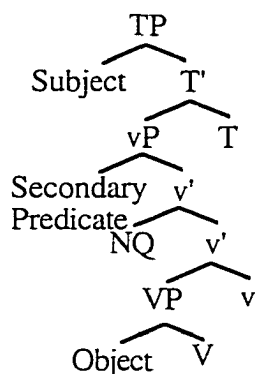
- (48)      \*Gakusee-ga nama-de      3-nin      katuo-o      tabeta.      (Koizumi's (20b))  
              Student-Nom raw      3-CL      bonito-Acc      ate

Koizumi accounts for the ungrammaticality of (48) by saying that the ODP cannot be base-generated outside of VP. The analysis in this chapter also does not allow the base-generation of the ODP in a position that is above a subject oriented Numeral Quantifier.

<sup>11</sup>I thank Uli Sauerland and Norvin Richards for bringing up this possibility.

Consider the structure in (49). Since both of the  $\bar{v}'$  projections have only one open argument position, namely that of the subject, both the Numeral Quantifier and the Secondary Predicate are, in effect, construed with the subject by the Predicate Modification rule.

(49)



However, the examples in (50) show that Secondary Predicates can undergo scrambling. This raises the question why the ODP cannot scramble to a position intervening between the Numeral Quantifier and the subject, which would give rise to (48).

- (50) a. Gakusee-ga 3-nin nama-de katuo-o tabeta.  
 Student-Nom 3-CL rawbonito-Acc ate  
 'Three students ate the bonito raw.'
- b. Nama-de<sub>i</sub> Taroo-ga katuo-o t<sub>i</sub> tabeta.(Koizumi's (7b))  
 Raw Taro-Nom bonito-Acc ate  
 'Taro ate the bonito raw.'

The examples in (51) show, however, that it is generally not possible to scramble to a position intervening between an argument and a Numeral Quantifier with which the argument is construed.



- (51) a. \*Gakusee-ga katuo-o 3-nin tabeta.  
           Student-Nom bonito-Acc 3-CL ate
- b. \*John-ga gakusee-ni hon-o 3-nin ageta.  
           John-Nom student-Dat book-Acc 3-CL gave

At present, the account of Numeral Quantifiers as VP-modifiers that I adopted above cannot account for (51), and consequently, (48).

### 4.3 Summary

The goal of this chapter was to show that the subjects of transitive verbs and unergative verbs in Japanese raise overtly to a higher projection, the Spec of TP. I used the Secondary Predicate construction to show this. The implication of this analysis is that subjects of these constructions cannot get their Nominative Case licensed in-situ, hence, raise overtly.

More specifically, the evidence considered above only establishes that the subjects can raise, not that they must raise. However, given that Nominative phrases of the passive construction raise to the Spec of TP obligatorily, as I argued in Chapter 2, it seems to be reasonable to assume that also the subjects of transitives and unergatives must raise to the Spec of TP. This would imply that there is no Nominative Case licenser within vP in either the unergative or the transitive construction and that, when the subjects of the transitive and unergative constructions raise to the Spec of TP for Case.

## Chapter 5: Structure within VP and Scrambling

### 5.1 Introduction

As is well known, the word order in Japanese is relatively free. For example, in a simple transitive construction, either the subject or the object can precede the other, as shown in (1).

- (1) a. Osamu-ga Hiroshi-o tataita.  
Osamu-Nom Hiroshi-Acc hit  
'Osamu hit Hiroshi.'
- b. Hiroshi-o Osamu-ga tataita.  
Hiroshi-Acc Osamu-Nom hit  
'Osamu hit Hiroshi.'

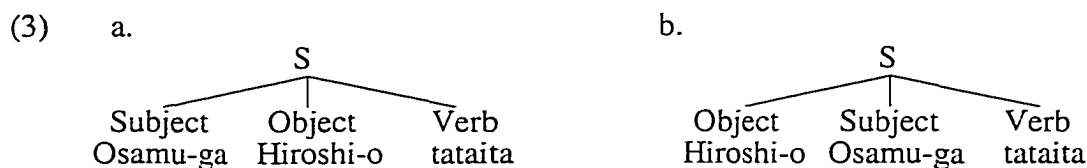
In a ditransitive sentence, there are six possibilities of the ordering among arguments, as shown in (2). These are all logical possibilities with the verb at the end.

- (2) a. Osamu-ga Misa-ni Hiroshi-o syookaisita.  
Osamu-Nom Misa-Dat Hiroshi-Acc introduced  
'Osamu introduced Hiroshi to Misa.'
- b. Osamu-ga Hiroshi-o Misa-ni syookaisita.  
Osamu-Nom Hiroshi-Acc Misa-Dat introduced  
'Osamu introduced Hiroshi to Misa.'
- c. Misa-ni Osamu-ga Hiroshi-o syookaisita.  
Misa-Dat Osamu-Nom Hiroshi-Acc introduced  
'Osamu introduced Hiroshi to Misa.'
- d. Hiroshi-o Osamu-ga Misa-ni syookaisita.  
Hiroshi-Acc Osamu-Nom Misa-Dat introduced  
'Osamu introduced Hiroshi to Misa.'
- e. Misa-ni Hiroshi-o Osamu-ga syookaisita.  
Misa-Dat Hiroshi-Acc Osamu-Nom introduced  
'Osamu introduced Hiroshi to Misa.'

- f. Hiroshi-o Misa-ni Osamu-ga syookaisita.  
 Hiroshi-Acc Misa-Dat Osamu-Nom introduced  
 'Osamu introduced Hiroshi to Misa.'

A different way of looking at this is the following: the surface word order of DPs is independent of the Case marking in Japanese.

In English, the word order is not as flexible. In the early 1980's, some researchers proposed that the difference between the two languages is that Japanese does not have hierarchical structure (Hale 1980, 1983). According to this approach, the surface word order of a Japanese sentence is reflected in the base-generated structure, and moreover, the structures are assumed to be flat. There is no movement of objects over subjects when they appear in the object-subject order. The proposed structures for the examples in (1) are shown below in (3).



Saito and Hoji (1983), Saito (1985), and Hoji (1985) show that Japanese phrase structure is hierarchical. They use standard tests for hierarchical relations, such as the Weak Crossover effect, the Condition C effect, and the Quantifier scope relations to argue that there is a VP node in Japanese (Saito 1985) and that the indirect object is base-generated hierarchically higher than the direct object in the double-object construction (Saito 1985, Hoji 1985). The relatively free surface word order in Japanese, they propose, is a result of a movement operation, *scrambling* (Ross 1969). According to this view, which I will call the movement hypothesis, (1a) and (2a) are the base-generated

structures, and we obtain (1b) and (2b)-(2f) via application(s) of scrambling to (1a) and (2a).

At the time of Saito and Hoji's writing, scrambling was considered to be an instance of the general movement operation, Move- $\alpha$ . Application of Move- $\alpha$  is considered to be free, as is scrambling. The result of application of Move- $\alpha$ , then, is constrained by conditions on movement/representation. This view goes well with the free alternation between the scrambled and non-scrambled orders.

Within the Minimalist Program, on the other hand, Chomsky (1993, 1995) among others proposes that every operation must be forced; more specifically, it has to be morphologically motivated. From this point of view, scrambling is problematic, if it is, indeed, an optional operation: it seems to lack an apparent morphological motivation. As Saito (1986) shows, scrambling does not establish an operator-variable relation as a result of movement. That is, scrambling is not an operator movement. Could it be a movement for Case? Given that some categories that do not seem to need Case, such as CP and PP, can scramble, and that the movement is often too long distance to be A-movement, scrambling does not seem to be a typical A-movement for Case, either. What, then, could be triggering the movement?

Miyagawa (1996, 1997) proposes that there is a difference between VP and IP-adjunction scrambling. Miyagawa argues that IP-adjunction scrambling is motivated for two reasons: one is for Topic-Focus, and the other is for Case. VP-adjoined positions, on the other hand, are not available as landing sites for scrambling, since we do not obtain Topic-Focus or Case in the VP-adjoined position. That is, VP-adjoining scrambling is not motivated. As for the structures which are analyzed as involving VP-adjunction by the proponents of the movement hypothesis, such as in (2b), Miyagawa proposes that both the indirect object-direct object (IO-DO) order and direct object-indirect object

(DO-IO) order can be base-generated in Japanese (see also Kitagawa 199?, Watanabe 1995 for a similar proposal). In this chapter, I will call this type of analysis the base-generation hypothesis.

In this chapter, I will present new empirical evidence for the movement hypothesis. I will argue that the movement hypothesis is conceptually more appealing as well, when we consider the issues of argument structure/theta-role assignment. I will also argue that the data from the VP-preposing construction with ditransitive verbs provide us a tool to see what kind of hierarchical structure Japanese has. To be more specific, I will propose that the VP-preposing construction gives us evidence for the Split-VP hypothesis, as argued for by Bobaljik (1995) and Lasnik (1995).<sup>1</sup>

## 5.2 Evidence for the Movement Hypothesis

As mentioned above, there are two approaches to the word order variations with the ditransitive construction in Japanese. One approach, which I call the movement hypothesis, claims that indirect object (IO) is always base-generated higher than the direct object (DO), and when we have the surface DO-IO order, that is a result of application of a movement operation, scrambling. The other approach, which I call the base-generation hypothesis, on the other hand, claims that both orders, IO-DO and DO-IO, can be base-generated.

In this chapter, I will examine some arguments for the movement hypothesis, namely, the Chain Condition effect and the VP-preposing construction. Note that the Chain Condition effect is one of the strongest piece of evidence for the base-generation hypothesis, presented by Miyagawa (1996, 1997). I will examine the analysis of the

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<sup>1</sup>Koizumi (1995) also argues for the Split-VP Hypothesis. His analysis differs from that of Bobaljik and Lasnik in that he does not assume that there is a VP projection between the IO and DO, unlike Bobaljik and Lasnik. The reason he does not assume is due to the adverb placement.

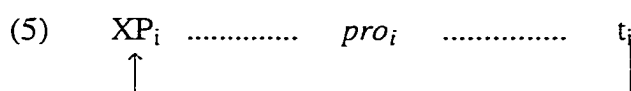
Chain Condition effect, and argue that in fact, the new data gives evidence for the movement hypothesis, rather than the base-generation hypothesis.

### 5.2.1 Chain Condition

Rizzi (1986) proposes the condition on chain formation shown in (4).

- (4) Rizzi's (1986) Chain Condition:  
 Chains:  $C = (x_i, \dots, x_n)$  is a chain iff, for  $1 < i < n$ ,  $x_i$  locally binds  $x_{i+1}$   
 ( $x$  locally binds  $x'$  iff it binds  $x'$  and there's no closer potential binder  $y$  for  $x'$ )

In conjunction with the Theta-Criterion, which requires an argument chain to have one theta-role and there be only one argument in a chain, this condition prohibits the structure shown in (5).<sup>2</sup> In (5),  $XP$ , which is coreferential with the pronominal/anaphoric element which is presented in (5) as  $pro_i$ , raised over  $pro_i$ . If we assume that chains are read off the surface structure of the sentence, the following are possible chains for the structure shown in (5).<sup>3</sup>



- (6) a.  $(XP), (pro), (t)$   
 b.  $(XP, pro) (t)$   
 b.  $(XP) (pro, t)$   
 c.  $(XP, pro, t)$

In (5),  $pro$  and the trace in the structure have theta-roles. All the possible chains in (6) are excluded by the theta-criterion. (6a) is excluded because  $XP$  forms a chain on its own

<sup>2</sup>At this point, I cannot offer any explanation how to derive the Chain Condition. It is, of course, desirable to derive the condition from some other aspect of the grammar, and I will leave this as a future research here.

<sup>3</sup>For Rizzi (1986), the chain is created by the S-structure representation, rather than derivationally. This is why there are many possible chains for the structure in (5), as shown in (6).



role, and the chain (si, t) has two theta-roles. (8d) is ruled out because the chain has two arguments and two theta-roles.

Independent of the technical detail of Rizzi's proposal on exactly how to rule out the structure shown in (5), the intuition should be clear: the trace needs a binder. If the binder has to be in the same chain as the trace, the chains formed as in (8a) and (8b) are ruled out because the traces in these possible chain formations are not bound in their chains. In (8c) and (8d), the requirement that the traces have to be bound are met, but now these chains are ruled out because of the Theta-Criterion.

For our purpose for the following sections, the crucial thing is that the structure in (5) leads to ungrammaticality, due to the Chain Condition and theta-criterion violation. Also crucial is that this is the case only when the arguments in the structure are not embedded within a bigger phrase. This is so because of the definition of the Chain Condition, which refers to binding: a chain can be formed between two elements only when one c-commands/binds the other.

#### *5.2.1.1 Evidence for the Base-Generation Hypothesis*

One of the strongest pieces of evidence for the base-generation hypothesis comes from the Chain Condition effect. Koizumi (1995) proposes that the Japanese reciprocal anaphor, *otagai* 'each other', is sensitive to the Chain Condition. He argues that the ungrammaticality of examples such as (9) stems from the Chain Condition. In (9), the object, which is the potential antecedent for the reciprocal anaphor in the subject position, is moved over the subject to a position higher than the subject. Since the anaphor is not embedded within a bigger DP, it c-commands the base-generated/trace position of the coreferential object. This contrasts with (10), in which the anaphor in subject position is embedded within a bigger DP, hence, does not c-command the base-generated





### 5.2.1.2 Problems with the Base-Generation Hypothesis

We need to be more careful, however. There are empirical and theoretical reasons to doubt that *otagai* is sensitive to the Chain Condition. Let us first consider the empirical reasons. Consider (12). The example in (12) is from the causative construction. In Japanese, the causee is marked Dative (henceforth Dative phrase) when the embedded verb takes a direct object, marked Accusative (henceforth Accusative phrase).

- (12)      Uli-ga    Kai-ni    hon-o      yoma-se-ta.  
             Uli-Nom Kai-Dat book-Acc read-caus-Past  
             ‘Uli made Kai read a book.’

Now consider (13) with *otagai*. In (13), *otagai* is the Dative phrase and the potential antecedent is the Accusative phrase. In (13), the Accusative phrase precedes the Dative phrase. As we see in (13), the causative construction behaves similarly to the ditransitive construction with respect to the sensitivity toward the Chain Condition: the Accusative-Dative order does not trigger the Chain Condition effect.

- (13)    ?Uli-ga    Jonathan-to<sub>i</sub>    Susi-o    otagai-ni<sub>i</sub>      hihans-ase-ta.  
             Uli-Nom Jonathan-and Susi-Acc each-other-Dat criticize-caus-Past  
             ‘Uli made each other criticize Jonathan and Susi’

There is an obvious difference between a causative example such as (13) and a ditransitive example such as (11): the Dative phrase and the Accusative phrase are the subject and the object of the embedded verb in the causative example, and they are the indirect object and the direct object in the ditransitive example. To maintain that the Chain Condition effect is avoided by base-generating the direct object higher than the indirect object, the proponents of the base-generation hypothesis would be led to

conclude that the object can be base-generated higher than the subject in a clause that is the complement of a causative, but not otherwise.

In effect, Miyagawa's approach claims that there is a difference between the relationship between external theta-role bearer and internal theta-role bearers, and the relationship among internal theta-role bearers. Namely, only external theta-role bearers must base-generate higher underlyingly. This is so because he assumes that the external argument (subject) must base-generated higher than the internal argument (object), and this is why we observe the Chain Condition with the Nominative-Accusative pair, when they appear in the Accusative-Nominative order. The Accusative phrase (object) is never base-generated higher than the Nominative phrase (subject), hence, whenever we have the Accusative-Nominative order, this is a result of a movement operation putting the Accusative phrase to a higher position than the Nominative phrase. Such movement, however, triggers the Chain Condition effect. When we have two internal arguments, such as indirect object and direct object, on the other hand, the ordering is free, and this is why either order, IO-DO or DO-IO, exhibit the Chain Condition effect.

Contrary to Miyagawa's claim, however, the Chain Condition appears to track Case, rather than the theta-roles. This is evident from the similarity we observe between causative Dative (subject)-Acc (object) relationship and the ditransitive Dative (IO)-Accusative (DO) relationship. As we see above, we do not obtain the expected Chain Condition effect even when the object which is coreferential with the subject raises over the subject with the causative construction. If the external argument is always base-generated higher than the internal argument, as Miyagawa tacitly assumes, however, we should observe the Chain Condition effect even with the causative construction.

The above data, then, leads us to conclude either that the Chain Condition applies differently on Nominative-Accusative relationships and Dative-Accusative relationships,

independent of the theta-roles borne by these arguments, or that the causative object is base-generated higher than the causative subject.<sup>5</sup>

There are empirical and conceptual arguments against base-generating the object higher than the subject as well. The conceptual argument comes from theta-role assignment. It has been assumed that objects get their theta-role directly from verbs, whereas subjects get theirs jointly by verbs and objects (from VP) (Chomsky 1981, among others). If we were to maintain this hypothesis, base-generating objects higher than subjects cannot be maintained.<sup>6</sup>

According to what we know about the phrase structure of Japanese, namely, that in a simple sentence, a subject asymmetrically c-commands an object when they appear in that order (Saito 1985)<sup>7</sup>, we expect to find the same structure in the causative construction, too. There is a piece of empirical evidence supporting this as well. The evidence comes from the distribution of Numeral Quantifiers. Let us assume, following Miyagawa (1989) among others, that a Numeral Quantifier can be left where a trace is.<sup>8, 9</sup> Consider the examples in (14). In (14a), the Numeral Quantifier, *3-tuu*, which is

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<sup>5</sup>Thanks for Kyle Johnson (p.c.) for pointing out this issue.

<sup>6</sup>This, of course, is not a settled and uncontroversial assumption. See alternative view in Lasnik (1995), Boskovic and Takahashi (to appear), among others.

<sup>7</sup>Following are examples which show that the subjects asymmetrically c-command the objects. Evidence comes from binding Condition C. In (ii), the R-expression *John* is c-commanded by a coreferential pronoun *kare* which is the subject, resulting in ungrammaticality.

(i) John<sub>i</sub>-ga [Mary-ga kare<sub>i</sub>-ni okutta tegami]-o mada yonde inai  
 John-Nom Mary-Nom he-Dat sent letter-Acc yet read have-not  
 'John<sub>i</sub> has not read the letter Mary sent to him<sub>i</sub>'

(ii) \*Kare<sub>i</sub>-ga [Mary-ga John<sub>i</sub>-ni okutta tegami]-o mada yonde inai  
 He-Nom Mary-Nom John-Dat sent letter-Acc yet read have-not

<sup>8</sup>Miyagawa (1989) argues that the trace of a moved element and the Numeral Quantifier associated with it must mutually c-command each other, assuming ternary branching structure. If we adjust his proposal, using binary branching structure, the condition would be stated in terms of m-command, rather than c-command.

<sup>9</sup>In Chapter 6, I will assume a different analysis of Numeral Quantifiers. Namely, I will assume that Numeral Quantifiers are VP adjuncts (Ishii 1998). This does not affect the argument here, however, hence, for ease of exposition, I will assume that the Numeral Quantifier marks the trace position in this chapter.

associated with the object *tegami* ‘letter’, is left between the causative subject and the verb. The sentence is grammatical, showing that the object must have originated below the subject. In (14b), on the other hand, the Numeral Quantifier, *3-nin*, which is associated with the subject *gakusee* ‘student’, is placed between the object and the verb. The sentence is ungrammatical. This suggests, then, that there is no trace of the subject below the object, and hence, the subject cannot be base-generated lower than the object.

- (14) a. Uli-ga tegami-o Jonathan-ni 3-tuu yom-ase-ta.  
           Uli-Nom letter-Acc Jonathan-Dat 3-CL read-caus-Past  
           ‘Uli made Jonathan read three letters.’  
       b. \*Uli-ga gakusee-ni hon-o 3-nin yom-ase-ta.  
           Uli-Nom students-Dat book-Acc 3-CL read-caus-Past

If what makes the example in (9) ungrammatical is the movement of the antecedent over an anaphor, we end up with the problem of base-generating the causative object higher than the subject. If we were to maintain that causative subjects are always base-generated higher than the object, on the other hand, the example in (11) ceases to be a piece of empirical support for the base-generation hypothesis, as stated by the proponents of the base-generation hypothesis.

Consider next the example in (15) (the example is due to Y. Abe). (15a) is ungrammatical, due to the Condition B violation. But we notice that (15b) is not as bad as (7), although the relevant part of the structure, namely, the embedded clause, has the identical configuration between the anaphor and its potential antecedent. In (15b) a pronoun which is coreferential to the anaphor is scrambled over the anaphor in the embedded subject position.

- (15) a. \*[Uli-to Jonathan]-ga<sub>i</sub> [Cpotagai-ga<sub>i</sub> karera-o<sub>i</sub> sukutta to ]  
           Uli-and Jonathan-Nom<sub>i</sub> each-other-Nom<sub>i</sub> they-Acc<sub>i</sub> saved that  
           omotteiru

is-thinking

- b. ?[Uli-to Jonathan]-ga<sub>i</sub> karera-o<sub>i</sub> otagai-ga<sub>i</sub> sukutta to  
 Uli-and Jonathan-Nom<sub>i</sub> they-Acc<sub>i</sub> each-other-Nom<sub>i</sub> saved that  
 omotteiru  
 is-thinking  
 'Uli and Jonathan think that they, each other saved'  
 Reading: i) Uli and Jonathan each thinks that the other saved them  
 ii) \*Uli and Jonathan think that for each of them the other saved  
 him

These are puzzles if movement of an element over a coreferential pronominal element always triggers the Chain Condition effect and the reciprocal anaphor exhibits the Chain Condition effect.

### 5.2.1.3 Theoretical Problem: Complex Structure of Reciprocal Anaphor

Consider next the theoretical reason to doubt that reciprocals are subject to the Chain Condition. Closer examination of the literature on the syntax and semantics of reciprocals casts a doubt on the sensitivity of the reciprocal anaphors to the Chain Condition. First, consider the paraphrase of example (11) in (16).

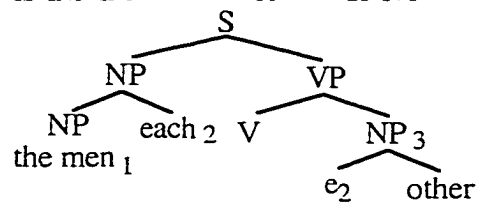
- (16) John introduced Hanako to Mary and John introduced Mary to Hanako (at the party).

What we notice is that the objects in both conjuncts are not coreferential. If at LF, which is the level where the Chain Condition applies, (11) were to look like the paraphrase in (16), no Chain Condition effect would be expected. In fact, in the literature on reciprocals, it has been argued that the LF-representation of (11) does not look exactly like (16), though it does predict the obviation of the Chain Condition. Heim, Lasnik and May (1991) propose the following syntactic structure for *each other*, to explain the syntax and semantics of the English reciprocal anaphor *each other*.

- (17) *e* of *each* is an anaphor; [*e other*] is an R-expression (HLM's (22))

Their proposal is that *each* raises at LF to its antecedent and distributes the antecedent. Consider a simple example in (18) to show how their system works. (18a) is the surface form. At LF, *each* raises to adjoin to the NP, as shown in (18b).<sup>10</sup>

- (18) a. The men saw each other.  
 b. [S [NP [NP the men]<sub>1</sub> each<sub>2</sub>] [VP saw [NP e<sub>2</sub> other]<sub>3</sub> ]



The sentence in (18a) can be paraphrased as follows:

- (19) The men each saw the other.

The sentence in (18a) and the paraphrase of it in (19) are true in the following situation.

- (20) John saw Bill. Bill saw John.

As we see in (20), the subject and the object must be disjoint in reference. This idea is expressed by their proposal that [*e other*] is an R-expression, which must bear a different index from the subject, in (19).

Let us assume Heim, Lasnik and May's proposal. We, then, have a complex structure for reciprocals at LF, shown in (17).<sup>11</sup> Since Chain formation takes place when

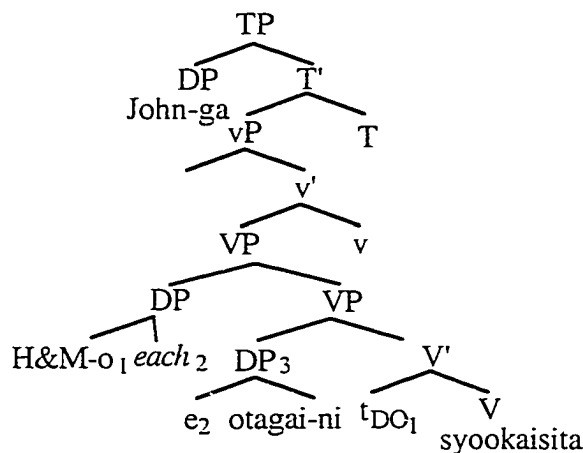
<sup>10</sup>A careful reader may wonder whether the trace of *each* is bound by *each*, given that *each* does not c-command its trace in this structure, if the definition of c-command is that of the first branching node. Recall that the trace of *each* is subject to the Binding condition A. According to Heim, Lasnik, and May, *each* does bind its trace due to the semantic mechanism. Readers are referred to their argument.

<sup>11</sup>Hoji (1998) also argues that Japanese reciprocal *otagai* has a complex structure.

one of the elements c-command the other, the reciprocal anaphor is not expected to be sensitive to the Chain condition. This is so, since the anaphoric part of the reciprocal is embedded within a bigger structure, and it does not c-command the trace/base-generated position of the moved antecedent in (11), which is repeated in (21a) with the LF structure shown in (21b). In (21b), the relevant elements to consider are surface position of DO, trace position of DO, and the trace position of *each*. As you can see in (21b), the trace of *each* does not c-command the trace of DO due to the complex structure of the reciprocal.<sup>12, 13</sup> As a result, the structure is expected not to be sensitive to the Chain Condition.

- (21) a. (?) John-ga [Hanako-to Mary]-o<sub>i</sub> (paatii-de) otagai-ni<sub>i</sub>  
           John-Nom [Hanako-and Mary]-Acc (party-at) each other-dat<sub>i</sub>  
           syookaisita.  
           introduced  
           ‘John introduced Hanako and Mary to each other at the party’

b.



<sup>12</sup>Again, by looking at the tree in (18b), the analysis in this section seems suspicious since the claim is that *each* binds *e*, but *e* does not c-command the trace position of DO. In the tree structure, however, they appear to have identical structural relation with the potential bindee. See footnote 10 above.

<sup>13</sup>One might wonder whether we can treat English reciprocal *each other*, which is bimorphemic, and Japanese *otagai*, which is monomorphemic, the same way with respect to *each* movement. The proposal that there is *each* movement is independent of whether a lexical entry for a reciprocal anaphor in a specific language has a part which corresponds to English *each*. For example, Japanese might have a phonologically null distributor.



#### 5.2.1.4 *Alternative Analysis*

If *otagai* is not subject to the Chain Condition, the question is, why is there a difference in grammaticality between (7) and (11)? To be more specific, why is (7) ungrammatical?

- (7)    ?\*[John-to Bob]-o<sub>i</sub>        otagai-ga            t<sub>i</sub> nagutta  
          [John and Bob]-Acc<sub>i</sub> each other-Nom t<sub>i</sub> hit

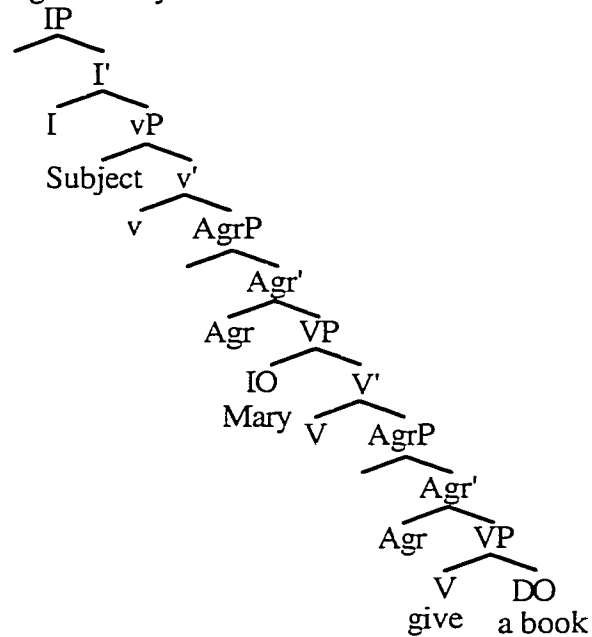
- (11)    (?) John-ga    [Hanako-to Mary]-o<sub>i</sub>    (paatii-de) otagai-ni<sub>i</sub>        syookaisita  
          John-Nom [Hanako-and Mary]-Acc (party-at) each other-dat<sub>i</sub> introduced  
          ‘John introduced Hanako and Mary to each other at the party’

I suggest that the difference between (7) and (11) is related to an independently established difference between subjects and objects. Namely, that the subject moves overtly for Case (see Chapter 2, 3, and 4 of this thesis) while the object does not. This implies that the scrambled object, *Hanako to Mary-o*, in (11) could possibly be in two positions, below or above the subject trace, while in (7), *John to Bob* can only be in an IP-adjoined position. This is so because any higher position above IP-adjoined position—i.e. adjoined to CP or in a higher clause—is an A-bar position, from which a scrambled phrase cannot bind into the subject position (Saito 199X, among others).

How could the potential landing site of the scrambling described above explain the difference between (7) and (11)? I will try to show below that with the combination of *each*-movement of Heim, Lasnik and May, and the independently motivated idea that movement cannot target a position that is too close to the starting position (Saito and Murasugi 1993), we can account for the difference.

Based on evidence from the Pseudogapping construction, Lasnik (1995) proposes the following base-generated structure for the ditransitive construction in English.

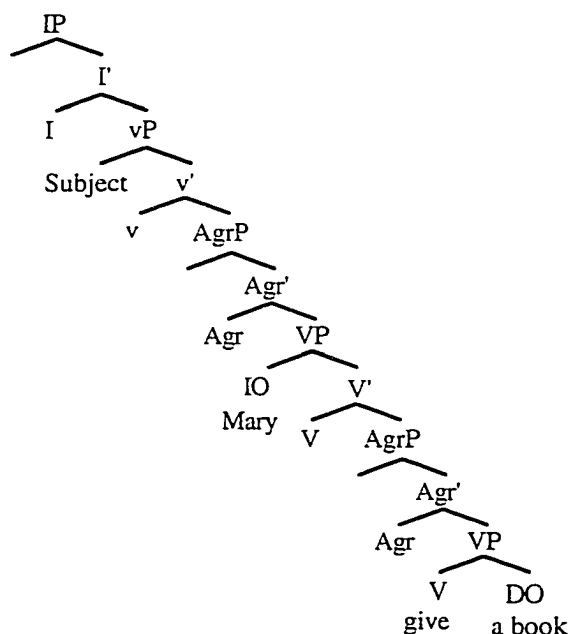
(22) John gave Mary a book

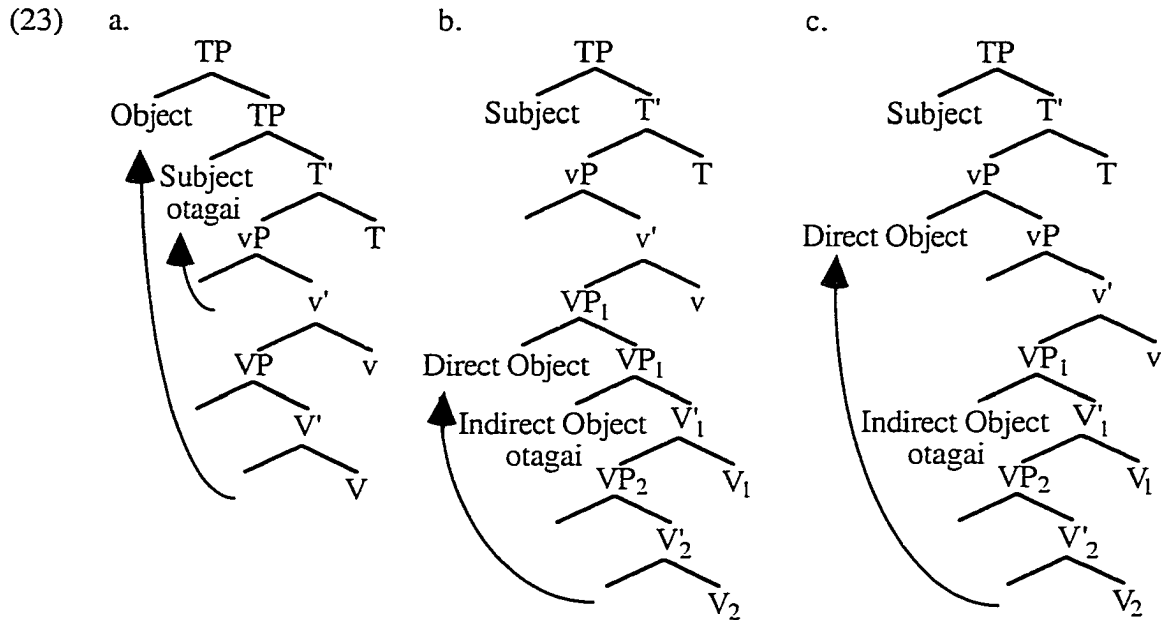


Following Lasnik (1995) and Bobaljik (1995), among others, let us assume that this is the structure for the ditransitive construction.<sup>14</sup>

<sup>14</sup>More precisely, I assume the structure in (22) without Agr projections, as shown below.

Let us go back to the examples in (7) and (11). As mentioned in the previous section, we assume that *each* raises to its antecedent at LF. Let us illustrate what must happen overtly for (7) and (11). Consider the trees in (23). (23a) is the overt structure for (7). In (23a), the potential antecedent of the anaphor, the direct object, scrambles to the front of *otagai* in subject position, adjoining to TP. The structures in (23b) and (23c) are the potential structures for (11), depending on where the landing-site is for a direct object when it scrambles over an indirect object but still to the right of subject.





At LF, *each*-movement takes place from the subject, which is in the Spec of TP, to the antecedent, which is adjoined to TP at LF, in (24a). For (11), on the other hand, there are two possible surface structures, (23b) and (23c). In (23b), *each*-movement takes place from the indirect object, which is in the Spec of VP<sub>1</sub>, to the direct object, which is adjoined to VP<sub>1</sub>. In (23c), on the other hand, *each*-movement takes place from the indirect object in the Spec of VP<sub>1</sub> to the direct object, which is adjoined to vP. I suspect that the grammaticality difference between (7) and (11) stems from the availability of (23c) for (11). Intuitively speaking, the movement that takes place in (23a) and (23b) is to a position that is too close, hence, cannot take place. In (18c), on the other hand, the target of the movement is far enough.

For independent reasons, Saito and Murasugi (1993), Fukui (1993), Takano (1997), Saito and Fukui (1992), propose that movement cannot target a position that is too close. Saito and Murasugi's (1993) constraint is shown in (24).

- (24) a. A chain link must be at least of length 1.

- b. A chain link from A to B is of length  $n$  iff there are  $n$  “nodes” (X, X' or XP, but not segments of these) that dominate A and exclude B.

This constraint is designed to prohibit an element from moving from the Spec of IP to the IP adjoined position.

If *each*-movement is restricted by the constraint shown in (24), it is clear why the movements in (23a) and (23b) are not possible: the chain links formed as a result of the movement are too short, since they are length 0.<sup>15</sup>

Consider the example in (15b), repeated here in (25a), and the potential paraphrases in (25b). (25a) shows that the matrix subject, rather than the scrambled object, is distributed. This is identified by considering which phrase is attached by *each* in the paraphrase, (i) and (ii). In the paraphrase (i), which is the available reading for the sentence in (25a), *each* is attached to the matrix subject, showing that *each* distributes the matrix subject. In the unavailable reading, (ii), on the other hand, *each* is within the embedded clause. In (26), we see that *each* can distribute either the object which scrambled over the reciprocal anaphor, or the matrix subject, when the sentence involves scrambling of a direct object over an indirect object to the left of the embedded subject. In all the acceptable cases, the movement of *each* is far enough from the anaphor, as shown in (27).<sup>16</sup>

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<sup>15</sup>As Kyle Johnson (p.c.) points out, *each*-movement always moves across more than one XP since *each* is within a DP, and *each*-movement will always take place over the DP. That is, *each*-movement, by definition, involves a chain link which is at least of length 1. The exact definition of what counts as too close is irrelevant for the discussion here, however, since the present analysis and the definition of Saito and Murasugu (in (21)) are compatible. For example, I could assume that *each* is adjoined to the DP, and then, the DP node will not be relevant in calculating the chain link.

<sup>16</sup>One might imagine an alternative story in which the reason for the Chain Condition effect is due to binding Condition A. Saito (199X) argues that Scrambling to the IP-adjoined position must reconstruct to the base-generated position, whereas Scrambling to the VP-adjoined position reconstructs only optionally. If this is the case, the ungrammaticality of (9) is due to the fact that the antecedent of the anaphor reconstructs to the base-position, which is lower than the anaphor in the subject position. With the ditransitive construction, on the other hand, scrambled antecedent (DO) does not have to reconstruct, and

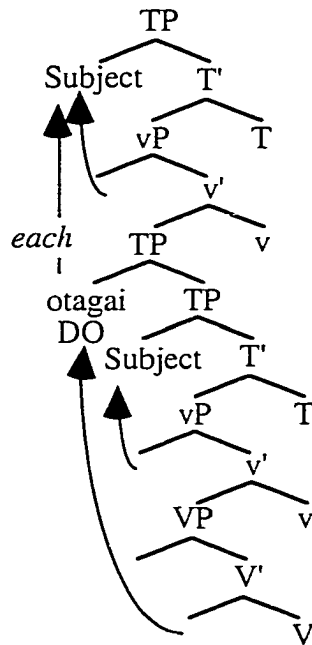
- (25) a. ?[Uli-to Jonathan]-ga<sub>i</sub> karera-o<sub>i</sub> otagai-ga<sub>i</sub> sukutta to  
 Uli-and Jonathan-Nom<sub>i</sub> they-Acc<sub>i</sub> each-other-Nom<sub>i</sub> saved that  
 omotteiru.  
 is-thinking  
 'Uli and Jonathan think that they, each other saved.'
- b. i) Uli and Jonathan each thinks that the other saved them  
 ii) \*Uli and Jonathan think that for each of them the other saved him
- (26) a. Uli to Jonathan-ga<sub>i</sub> Susi-ga (kossorito) karera-o<sub>i</sub> otagai-ni<sub>i</sub>  
 Uli and Jonathan-Nom<sub>i</sub> Susi-Nom secretly they-Acc<sub>i</sub> each-other-Dat<sub>i</sub>  
 miseta to omotteiru.  
 showed that is-thinking
- b. i) ??Uli and Jonathan each think that Susi secretly showed him the other  
 ii) Uli and Jonathan think that for each of them, Susi secretly showed him to  
 the other

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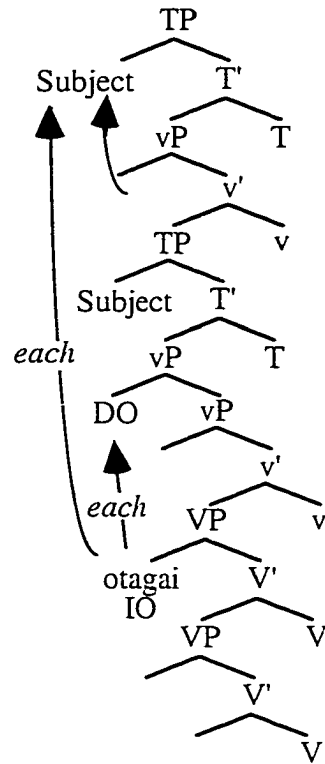
the anaphor in the IO can be bound by the antecedent from the raised position. That is to say that the reason we obtain the Chain Condition effect is not because of *each* movement.

This alternative encounters two problems, however. One is that it does not account for the difference between reciprocals and reflexives, which I discuss in the next subsection. As we see below, the Chain Condition effect (re)appears when we have the reflexive anaphor, even with the ditransitive objects. Another problem is that it does not account for the fact that when an object is scrambled to an IP-adjoined position, it can bind into the subject. Because of these problems, we cannot adopt this potential alternative theory.

(27) a.



b.



#### 5.2.1.5 Chain Condition with reflexive anaphor: karezisin 'himself'

I have argued in section 5.2.1 that the reciprocal anaphor is not sensitive to the Chain Condition. What we should examine, using the Chain Condition effect, then, are examples with the reflexive anaphor. Since reflexive anaphors do not have the complex structure that reciprocal anaphors do ((17)), we predict that we should obtain the Chain Condition effect. In fact, as we see in (28) and (29), the Japanese reflexive anaphor exhibits the Chain Condition effect. In (28), the anaphor directly c-commands the base-generated position of the object, and the result is ungrammaticality. In (29), on the other hand, the anaphor is embedded within a bigger DP, and the examples are grammatical.

- (28) a. ?\*Uli-o karezisin-ga nagutta  
 Uli-Acc himself-Nom hit

- b. ?\*Uli-o karezisin-ga waratta  
Uli-Acc himself-Nom laughed
- (29) a. Uli-o [karezisin-no hahaoya]-ga nagutta  
Uli-Acc himself-Gen mother-Nom hit  
'Uli, himself's mother hit'
- b. Uli-o [karezisin-no hahaoya]-ga waratta  
Uli-Acc himself-Gen mother-Nom laughed  
'Uli, himself's mother laughed at'

This provides us a way to distinguish between the two hypotheses: if the DO-IO order can be base-generated, we should not observe the Chain Condition effect. We find, however, that the DO-IO order does exhibit the Chain Condition effect, as shown in (30) and (31). When the reflexive anaphor is not embedded within a bigger DP, as in (30), the sentences are ungrammatical. When the reflexives are embedded within a bigger DP, as in (31), on the other hand, the sentences are grammatical.

- (30) a. \*Uli-ga (kagami-o tukatte) Jonathan-o<sub>i</sub> karezisin-ni<sub>i</sub> miseta.  
Uli-Nom (mirror-Acc usin)g Jonathan-Acc<sub>i</sub> himself-Dat<sub>i</sub> showed
- b. \*Uli-ga (kagami-o tukatte) Jonathan-o<sub>i</sub> karezisin-ni<sub>i</sub> wariateta.  
Uli-Nom (mirror-Acc usin)g Jonathan-Acc<sub>i</sub> himself-Dat<sub>i</sub> assigned
- (31) a. Uli-ga (kagami-o tukatte) Jonathan-o<sub>i</sub> karezisin-no hahaoya-ni<sub>i</sub>  
Uli-Nom (mirror-Acc usin)g Jonathan-Acc<sub>i</sub> himself-Gen mother-Dat<sub>i</sub>  
miseta.  
showed  
'Uli showed Jonathan to himself's mother (using a mirror)'
- b. Uli-ga Jonathan-o<sub>i</sub> karezisin-no hahaoya-ni<sub>i</sub> wariateta.  
Uli-Nom Jonathan-Acc himself-Gen mother-Dat assigned  
'Uli assigned Jonathan to himself's mother'

The data above contrast with the order IO-DO. The examples are basically fine when the order is IO-DO, as predicted, even if the anaphor in the direct-object position is not embedded within a bigger DP.



- (32) a. ?Uli-ga (kagami-o tukatte) Jonathan-ni<sub>i</sub> karezisin-o<sub>i</sub> miseta  
 Uli-Nom (mirror-Acc usin)g Jonathan-Dat<sub>i</sub> himself-Acc<sub>i</sub> showed  
 ‘Uli showed himself to Jonathan (using a mirror)’  
 b. ?Uli-ga (kagami-o tukatte) Jonathan-ni<sub>i</sub> karezisin-o<sub>i</sub> syookaisita  
 Uli-Nom (mirror-Acc usin)g Jonathan-Dat<sub>i</sub> himself-Acc<sub>i</sub> introduced  
 ‘Uli introduced himself to Jonathan (using a mirror)’

I propose that the grammaticality difference between (28) and (29) stems from the Chain Condition effect.

With causatives, we also find the contrast between reflexives and reciprocals.

- (33) \*Uli-ga Jonathan-o<sub>i</sub> karezisin-ni<sub>i</sub> hihans-ase-ta.  
 Uli-Nom Jonathan-Acc himself-Dat criticize-caus-past

Again, this supports my conclusion.

Notice that the data shown in this subsection cannot be accounted for by Miyagawa’s theory. This is so because according to his theory, we should not expect the Chain Condition effect ever with the ditransitive objects, whether we have the Accusative-Dative or Dative-Accusative order.

### 5.2.2 VP-preposing construction

In this section, I will present further support for the movement hypothesis from the VP-preposing construction in Japanese. Evidence from the VP-preposing construction shows that there is an asymmetry between the IO-DO and DO-IO orders. This is not expected if we assume the base-generation hypothesis. According to the base-generation hypothesis, the IO-DO and DO-IO orders should always behave the same. Hence, the asymmetry shown in this section is problematic for the base-generation

hypothesis. If we assume the movement-hypothesis, on the other hand, the facts follow naturally, as I show below.

### 5.2.2.1 Data

In Japanese, emphatic particles such as *sae* ‘even’, *mo* ‘also’, and topic marker *wa*, can be attached to a verb, as shown in (34)-(36). When these particles are attached to a verb, the matrix tense is supported by a verb *suru* ‘do’. The sentences in (34)-(36) are most natural in two situations: (i) Kai has done many things, and what is depicted in (34)-(36) are the most unexpected thing he did; or (ii) many things happened, and what is depicted in (34)-(36) are the most unexpected event that happened among them.<sup>17</sup>

- (34) a. Kai-ga [warai-sae/mo/wa] sita.  
           Kai-Nom laugh-even/also/Top did  
           ‘Kai did even/also laugh.’  
       b. Kai-ga [aruki-sae] sita.  
           Kai-Nom walk-even did  
           ‘Kai did even walk.’  
       c. Kai-ga [sakebi-sae] sita.  
           Kai-Nom shout-even did  
           ‘Kai did even shout.’
- (35) a. Kai-ga [hon-o yomi-sae] sita.  
           Kai-Nom book-Acc read-even did  
           ‘Kai did even read a book.’  
       b. Kai-ga [tegami-o kaki-sae] sita.  
           Kai-Nom letter-Acc write-even did  
           ‘Kai did even write a letter.’  
       c. Kai-ga [biiru-o nomi-sae] sita.  
           Kai-Nom beer-Acc drink-even did  
           ‘Kai did even drink beer.’

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<sup>17</sup>I will come back to the discussion of these situations in section 5.3.1. when I review Hasegawa’s analysis of the VP-preposing construction.

- (36) a. Kai-ga [Erika-ni Uli-o syookaisi-sae] sita.  
 Kai-Nom Erika-Dat Uli-Acc introduce-even did  
 'Kai did even introduce Uli to Erika.'
- b. Kai-ga [Erika-ni hana-o age-sae] sita.  
 Kai-Nom Erika-Dat flower-Acc give-even did  
 'Kai did even give flowers to Erika.'
- c. Kai-ga [hahaoya-ni egao-o mise-sae] sita.  
 Kai-Nom mother-Dat smile-Acc show-even did  
 'Kai did even show a smile to his mother'

The examples in (34) are with unergative verbs, (35) are with transitive verbs, and (36) are with ditransitive verbs.

The VP-preposing construction looks quite similar to the regular sentences as in (34)-(36), except that the order of subjects and the materias in the square brackets are changed, as shown in (37)-(39).

- (37) a. [Warai-sae] Kai-ga sita.  
 Laugh-even Kai-Nom did  
 'Even laugh, Kai did.'
- b. [Aruki-sae] Kai-ga sita.  
 Walk-even Kai-Nom did  
 'Even walk, Kai did.'
- c. [Takebi-sae] Kai-ga sita.  
 Shout-even Kai-Nom did  
 'Even shout, Kai did.'
- (38) a. [Hon-o yomi-sae] Kai-ga sita.  
 Book-Acc read-even Kai-Nom did  
 'Even read a book, Kai did.'
- b. [Tegami-o kaki-sae] Kai-ga sita.  
 Letter-Acc write-even Kai-Nom did  
 'Even write a letter, Kai did.'
- c. [Biiru-o nomi-sae] Kai-ga sita.  
 Beer-Acc drink-even Kai-Nom did  
 'Even drink beer, Kai did.'

- (39) a. [Erika-ni Uli-o syookaisi-sae] Kai-ga sita.  
 Erika-Dat Uli-Acc introduce-even Kai-Nom did  
 'Even introduce Uli to Erika, Kai did.'
- b. [Erika-ni hana-o age-sae] Kai-ga sita.  
 Erika-Dat flower-Acc give-even Kai-Nom did  
 'Even give flowers to Erika, Kai did.'
- c. [Hahaoya-ni egao-o mise-sae] Kai-ga sita.  
 Mother-Dat smile-Acc show-even Kai-Nom did  
 'Even show a smile to his mother, Kai did'

Let us focus on the examples with unergative verbs ((34) and (37)) and transitive verbs ((35) and (38)) for now. It has been observed that it is possible to prepose the unergative verb alone, as shown in (37), but not the transitive verb alone, as shown in (40) below (Hoji, Miyagawa and Tada 1989, Hasegawa 1990, Tateishi 1993, Inagaki 1993, Hoshi 1993, among others). When we have a transitive verb in the construction, the object has to be preposed along with the verb, as shown in (38) above.

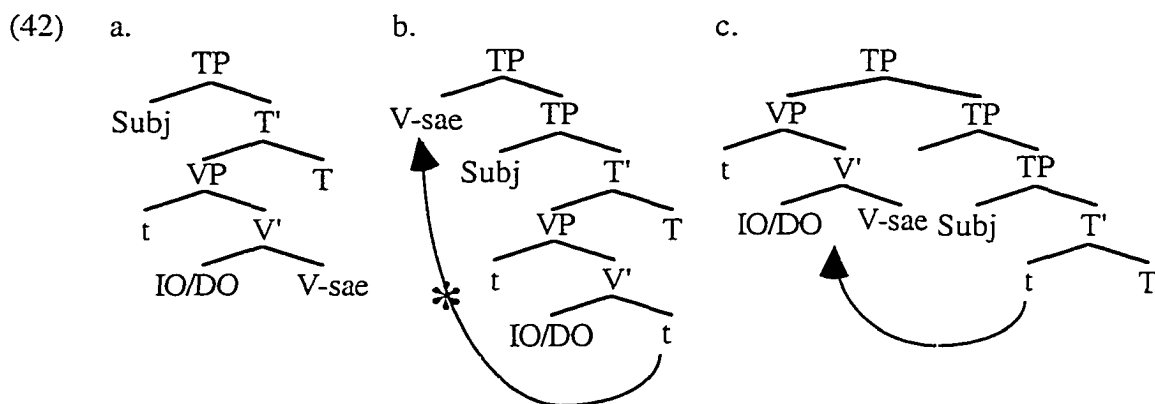
- (40) a. \*[Yomi-sae] Kai-ga hon-o sita.  
 Read-even Kai-Nom book-Acc did
- b. \*[Kaki-sae] Kai-ga Tegami-o sita.  
 Write-even Kai-Nom Letter-Acc did
- c. \*[Nomi-sae] Kai-ga Biiru-o sita.  
 Drink-even Kai-Nom Beer-Acc did

A question is, why are the examples in (40) ungrammatical? Notice that it is not a ban against leaving an Accusative Case-marked object as a remnant that makes the sentences in (40) ungrammatical, as the examples in (41) show. An internal argument Case-marked with Dative Case-marker is left as a remnant in (41b), and the result is still

ungrammatical. If the Dative Case-marked object is preposed along with the verb, the sentence is fine, as shown in (41c).<sup>18</sup>

- (41) a. Tsutomu-ga [Kai-ni ai-sae] sita.  
 Tsutomu-Nom Kai-Dat meet-even did  
 'Tsutomu did even meet Kai.'
- b. \*[Ai-sae] Tsutomu-ga Kai-ni sita.  
 Meet-even Tsutomu-Nom Kai-Dat did
- c. [Kai-ni ai-sae] Tsutomu-ga sita.  
 Kai-Dat meet-even Tsutomu-Nom did  
 'Even meet Kai, Tsutomu did.'

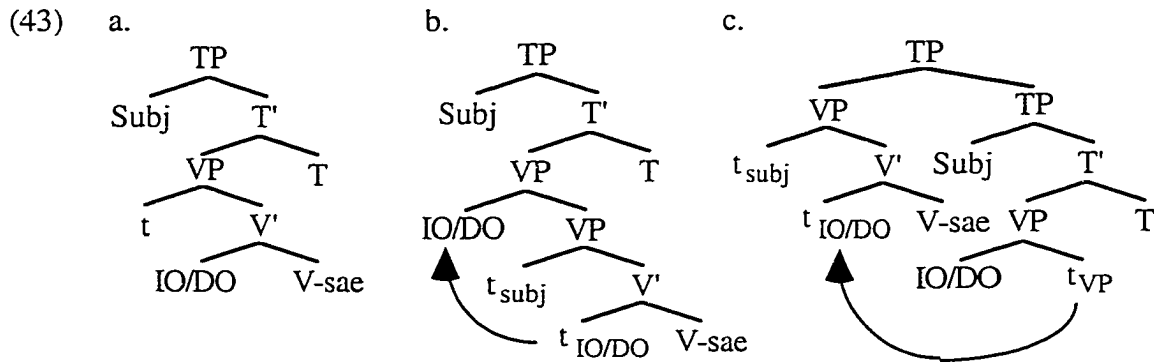
This can be given a straightforward explanation if we hypothesize that only XPs can be preposed in this construction (Hoji, Miyagawa, and Tada 1989, Hasegawa 1990, Inagaki 1993, among others). What could be wrong with (40), and (41b), then, is that verb heads, not XPs, are preposed, as shown in (42b). In the grammatical sentences, on the other hand, an XP (VP) is preposed, as shown in (42c).



This does not yet fully explain the ungrammaticality of the examples in (40) and (41b), however, since Japanese has scrambling. Why is it not possible to prepose a full VP, after scrambling the internal argument out of the VP, as shown in (43)? In (57), the

<sup>18</sup>I thank Masao Ochi for pointing this out to me.

internal object scrambles to adjoin to VP ((43b)), and then, the remnant VO raises to adjoin to TP, as shown in (43c).



Hoji, Miyagawa, and Tada (1989) (and Saito (1985, 1991) for more general cases as in (44b)) claim that this kind of derivation is ruled out by the Proper Binding Condition (PBC) in (45). The trace of the object in the fronted VP in (44a) is not bound by its antecedent.

- (44) a.  $*[t_i \text{ Kaki-sae}]_j$  Kai-ga rombun-o<sub>i</sub>  $t_j$  sita  
 $t_i$  Write-even<sub>j</sub> Kai-Nom paper-Acc<sub>i</sub>  $t_j$  did
- b.  $*[\text{Hanako-ga } t_i \text{ yonda to}]_j$  sono hon<sub>i</sub>-o Taro-ga  $t_j$  itta  
 Hanako-Nom  $t_i$  read that that<sub>j</sub> book<sub>i</sub>-Acc Taro-Nom  $t_j$  said

- (45) Traces must be bound. (Fiengo 1977)

Let us assume that the sentences in (44) are, indeed, ruled out because of the unbound traces in the fronted constituent.<sup>19</sup> Then, the problem with the examples in (40) and (41b) is that they violate the PBC, since to derive these sentences, internal arguments

<sup>19</sup>As you can see in the structure in (43c), there is a trace of subject in the fronted VP, if we assume the VP-internal Subject Hypothesis. To maintain that the ungrammaticality of the (40) and (41b) is due to the Proper Binding Condition, we have two options: either to say that the trace of subjects does not trigger the Proper Binding Condition effect, or that there is no subject trace in the fronted VP. As you will see below, I will propose that the latter is the case, using the Split-VP Hypothesis.

would have had to scramble out of the VPs before the VPs are fronted. This analysis makes a prediction: If (40) and (41b) are ruled out because of a PBC violation, it must not be possible for any internal arguments to be left as remnant of this construction. What I will show in this chapter is that the prediction is, indeed, borne out and that this characteristic of this construction gives insight into the architecture of VPs in Japanese.

Let us review some previous analyses of this construction in the next section.

#### 5.2.2.2 *Previous analyses*

Let us briefly review some previous analyses of this construction. As far as I am aware, Hoji, Miyagawa and Tada (1989) was the first to propose that it is a VP which is moved to the front of subject, suggesting that there is a node VP which excludes the subject (See also Tateishi 1993).

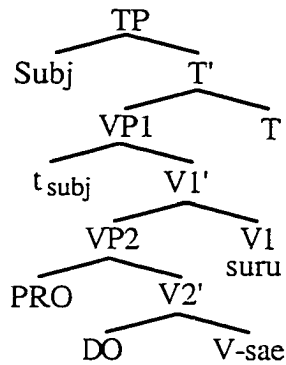
##### 5.2.2.2.1 Hasegawa (1990)

While Hoji, Miyagawa and Tada (1989) concluded that there is a VP-node excluding the base-generated position of subject, hence, not assuming the VP-internal Subject Hypothesis, Hasegawa (1990) and Inagaki (1993) propose an alternative analysis in which they try to maintain the VP-internal Subject Hypothesis.

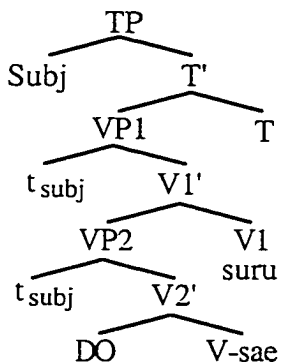
Both Hasegawa (1990) and Inagaki (1993) propose that *suru* can be a control verb. Hasegawa (1990) proposes that (46a) is ambiguous between the structures in (46b) and (46c). In (46b), *suru* is a control verb, hence, takes a complement whose subject position is occupied by PRO. Crucially, in this construction, the matrix subject starts out in the Spec of VP headed by *suru*, rather than the Spec of embedded VP, controlling PRO in the Spec of embedded VP. Let us call this the control structure. There is another

structure, (46c), in which the matrix subject starts out in the Spec of embedded VP. Let us call this the raising structure.

- (46) a. Kai-ga hon-o yomi-sae sita  
 Kai-Nom book-Acc read-even did  
 'Kai even read a book'
- b. Kai-ga<sub>i</sub> [VP<sub>1</sub> t<sub>i</sub> [VP<sub>2</sub> PRO<sub>i</sub> hon-o yomi]-sae si]-ta  
 Kai-Nom<sub>i</sub> t<sub>i</sub> PRO<sub>i</sub> book-Acc read-even do-past



- c. Kai-ga [VP t<sub>i</sub> hon-o yomi-sae si]-ta  
 Kai-Nom t<sub>i</sub> book-Acc read-even do-past



The VP-preposed example, shown in (47a), on the other hand, has only one of the structures, namely the control structure, shown in (47b). In (47b), the VP whose Spec is occupied by PRO is preposed to the front of the matrix subject. As a result, there is no trace in the fronted constituent, hence, the missing subject does not trigger the Proper Binding Condition. In (47c), there is a trace of subject, *Taro-ga*, in the fronted



constituent. This structure would trigger the Proper Binding Condition. Put differently, according to Hasegawa's (1990) and Inagaki's (1993) analysis, VP-preposing is possible just in case the control structure is available. VP can be fronted in (47a) without triggering the Proper Binding Condition because the control structure is available.

- (47) a. Hon-o yomi-sae Taro-ga sita  
 book-Acc read-even Taro-Nom did  
 'Even read a book, Taro did'
- b. [VP<sub>2</sub> PRO<sub>i</sub> hon-o yomi]-sae<sub>j</sub> Taro-ga<sub>i</sub> [VP<sub>1</sub> t<sub>i</sub> t<sub>j</sub> si]-ta  
 PRO<sub>i</sub> book-Acc read-even<sub>j</sub> Taro-Nom t<sub>i</sub> t<sub>j</sub> do-past
- c. \*[VP<sub>2</sub> t<sub>i</sub> hon-o yomi]-sae<sub>j</sub> Taro-ga<sub>i</sub> [VP<sub>1</sub> t<sub>j</sub> si]-ta  
 t<sub>i</sub> book-Acc read-even Taro-Nom t<sub>j</sub> do-past

Hasegawa (1990) proposes that the two interpretations for the non-preposed examples such as the ones in (2) correspond to the two structures available for this construction. Before going into the readings of these constructions, however, let us discuss focus briefly, since this becomes relevant when we discuss the interpretation of a sentence with a focus particle such as *sae*.

Focus particles such as *sae* in Japanese or *even* and *only* in English stand in a close relation with focus. Let us consider English examples below. The word that carries the stress in the sentence is shown with capital letters.

- (48) John even [read a BOOK].

(48) presupposes that John was expected to read some things (magazines, newspapers, e-mails, etc.), and a book was the least expected thing among them that he would read.

(49), on the other hand, presupposes that John was expected to do many things with a book (buy it, bring it home, show it to family, etc.), and among them, reading was the least expected.

(49) John even [READ a book].

In both (48) and (49), *even* takes scope over the entire VP: it c-commands the entire VP. Depending on the stress, however, the meaning changes. Following the standard terminology, I will call the focused material (*a book* in (48) and *read* in (49), for example), the associate of *even*. It is standardly assumed that focus particles such as *even* take scope, and the associate of *even* must be within the scope of *even* (Bayer 1995, Rooth 1985).

It is also possible for *even* to have an association with the subject, as (50) shows. (50) is true in the context in which many people (John, Danny, Susi, etc.) were expected to read a book, and John was the least expected among the people.<sup>20</sup>

(50) JOHN even read a book.

Just like English *even*, Japanese *sae* can take scope over subjects. This is evident from the interpretations available for (51a). Three situations in which (51a) can be uttered naturally are shown in (51b)-(51d).<sup>21</sup>

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<sup>20</sup>In English, *only* and *even* behave differently. Namely, *even* can be associated with the subject but not *only*, as shown in (i). (ia) has the following presupposition: Some people were expected to read a book. John, however, was the least expected person to read a book. The sentence in (ib), on the other hand, is strange.

(i) a. JOHN has even [read a book].  
b. #JOHN has only [read a book].

The examples in (i) show that *even* can be associated with the trace of the subject (assuming that *even* does not take scope over the overt position of the subject, and that the associate of *even* has to be inside of the scope), but not *only*. What is crucial for us is that Japanese counterpart of *even*, *sae*, behaves similar to *even* as shown in the main text.

<sup>21</sup>Hasegawa (1990) assumes that there are only two interpretations, namely, the one in (51b) and (51c), available for the sentence in (51a). Since the interpretation in (51d) can be viewed as a subcase of the IP-reading (51b), it is consistent with her analysis. What is crucial for her analysis is whether *even* can be associated with a constituent which includes a subject. I also don't use this reading in what follows, but it makes it clear that *sae* can be associated with the subject, and hence must be able to take scope over the subject.

- (51) a. Kai-ga [hon-o yomi]-sae sita.  
 Kai-Nom book-Acc read-even did  
 'Kai did even read a book.'
- b. Many things happened. Susi woke up at 8, there was a party at Magazine Street, etc. Among the many events that happened, Kai's reading a book was the least expected event.  
 'Even Kai read a book.'---*sae* is associated with the whole IP (IP-readin)g
- c. Kai did many things. He ate apples, he went for a walk, he played with his toys, etc. Among the many things he did, reading a book was the least expected event.  
 'Kai even read a book.'---*sae* is not associated with the subject ((small) VP-readin)g
- d. Kai did many things with a book. He licked a book, he chewed on a book, he crawled over a book, and so forth. Among all the things he did with a book, reading was the least expected.  
 'Kai even read a book.'---*sae* is associated with the subject (subject-readin)g

According to Hasegawa, the two readings, (51b) and (51c), are available because there are two possible structures for (51a), as shown in (46b) and (46c), repeated here in (52). Namely, we obtain the IP-reading in (51b) when we have a control structure, as in (52b), and the VP-reading obtains, when we have a raising structure, as in (52a). Hasegawa's proposal is that this is due to the base-generated position of the subject: when it is within the c-domain of *sae*, as in the case with the raising construction, the IP-reading obtains. When it is outside of the c-domain of *sae*, as in the cases with the control construction, we get the VP-reading.

- (52) a. Kai-ga<sub>i</sub> [vp<sub>1</sub> t<sub>i</sub> [vp<sub>2</sub> PRO<sub>i</sub> hon-o yomi-sae] si]-ta  
 Kai-Nom<sub>i</sub>t<sub>i</sub> PRO<sub>i</sub>book-Acc read-even do-past
- b. Kai-ga [vp t<sub>i</sub> hon-o yomi-sae si]-ta  
 Kai-Nom t<sub>i</sub> book-Acc read-even do-past

Now consider the VP-preposing construction. With the VP-preposed structure, only the VP-reading is available for the sentence, as shown in (53).

- (53) a. [Hon-o yomi-sae] Kai-ga sita  
 book-Acc read-even Kai-Nom did  
 'Even read a book, Kai did.'
- b. Kai did many things. Among the things he did, reading a book was the least expected event.---*sae* is not associated with the subject. (VP-reading)

Hasegawa (1990) proposes that the IP-reading is missing with the VP-preposing construction because only the control structure is available for it. According to her analysis, VPs can be preposed only when the original structure is that of control. This is so because if we have the raising construction, there will be an unbound trace within the fronted VP. With a control structure, on the other hand, we will not: the Spec of embedded VP is occupied by PRO.

Although her proposal gives an account for the (non-a)availability of the readings for non-preposed and preposed structures shown above quite elegantly, there are a couple of questions that have to be addressed. One is the relevant point of derivation where the Proper Binding Condition is considered. Her tacit assumption is that the Proper Binding Condition is a condition on overt structural representation (Saito 1985, among others). This, however, is a controversial assumption. Huang (1993), for example, argues that the VP-fronting in English fronts a VP with a trace of the subject in the Spec position.<sup>22</sup> If Huang's analysis is correct, we have an instance of unbound trace in overt structure without triggering the Proper Binding Condition. Takano (1994) further argues that the Proper Binding Condition is derived from another part of the theory, namely, the shortest-move Condition.<sup>23</sup> What Takano and Müller (1994) observe is that the structure that should trigger the Proper Binding Condition does not if the two movements, the one

<sup>22</sup>See Takano (1995) for argument for Huang's analysis of the VP-fronting construction in English. Saito (199X), on the other hand, argues that the VP-fronting in English involves control structure. That is, the status of the fronted constituent is not uncontroversial.

<sup>23</sup>I will come back to this point later in section 5.2.3.4.

of which created the trace and the other fronting the bigger constituent containing the trace, are two different kinds. For example, let us assume a derivation in which a small phrase moves out of a bigger phrase for Case reason, and then the bigger phrase raises to a position higher than the landing site of the small phrase. Let us assume that the bigger phrase raises as wh-movement. In this derivation, the two operations are different: small phrase raises for Case, and the bigger phrase raises for wh-movement. As a result, the sentence is grammatical, and this is the reason a sentence such as (54).

- (54) a. How likely to attend the rally is a politician?  
 b. [How likely  $t_i$  to attend the rally]<sub>j</sub> is a politician<sub>i</sub>  $t_j$  ?

Another question is about the association between subjects and *sae*. Hasegawa's analysis assumes that traces can be associated with *sae*, but not PRO. This assumption, however, might be problematic. Krifka (1998), attributing the example to Irene Heim, points out that PRO can be associated with focus, as shown in (54). In (54), the associate of *auch* is PRO, rather than the matrix subject. This can be seen when we consider the meaning of the example, shown in (54b).

- (54) a. Maria möchte [PRO auch eingeladen werden].  
 Maria wants PRO as-well invited to-be  
 'Maria wants to be invited, too.'  
 b. Maria wants that SHE as well gets invited  
 c. #MARIA as well wants that she gets invited

Without answers to these questions, we cannot simply adopt the proposal by Hasegawa (1990).

#### 5.2.2.2.2 Inagaki (1993)

Inagaki (1993) adopts the control analysis of VP-preposing construction of Hasegawa (1990), but proposes the following structure for the raising/non-control structure. He also adopts Hasegawa's proposal that we obtain the IP-reading when we have the raising construction.

- (55) [vp Kai-ga hon-o yomi]-sae sita.  
           Kai-Nom book-Acc read-even did

According to his proposal, the Nominative Case-marked DP does not raise overtly for Case, since the licensing of the Nominative Case takes place at LF. As a result, the Nominative DP remains in-situ overtly. Since there is no VP constituent which excludes the subject, the VP-preposing is not possible when we have the raising construction. When we have the control structure, on the other hand, the VP, which contains PRO, can be fronted. This is why the VP-preposing construction has only the VP-reading.

Inagaki's analysis is not consistent with the proposal I have made in Chapter 2, 3, and 4 of this thesis, however. Namely, the Nominative Case of a DP must be licensed overtly. According to the proposal in those chapters, a Nominative DP can stay in-situ just in case the Case of the DP can be licensed in that position without raising to another Case position such as the Spec of TP. If the structure in (55) is correct, it must be that the Nominative Case of the DP is licensed within VP. Let us assume that Nominative Case can be licensed by verb for concreteness. This assumption, however, is not borne out, as we saw in chapter 4. Nominative Case-marked subjects of regular transitive verbs raise to the Spec of TP for Case. This shows that there is no Nominative Case-licenser within VP when we have a regular transitive construction.

Inagaki's analysis encounters the same problem as Hasegawa's did with respect to the focus particle associating with PRO.

### 5.2.2.3 Ditransitives

In this section, I discuss the VP-preposing construction with ditransitive verbs. I will show that the data with the ditransitive verbs give further argument against the previous analyses of this construction.

#### 5.2.2.3.1 Data

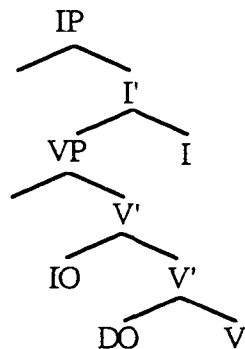
Independent of the analysis of the VP-preposing construction, we make two predictions. We predict that fronting indirect object (IO) and direct object (DO) along with the verb results in grammaticality. This is so because there is a VP-node dominating both IO and DO, which should be able to be preposed. We also predict that fronting the verb alone results in ungrammaticality. This parallels the pattern we find in the transitive construction. In the transitive construction, it is not possible to raise a verb alone to the front of a subject. In the same manner, it should not be possible to raise a verb alone to the front of a subject when the verb is ditransitive. The predictions are, indeed, borne out, as shown in (56) and (57). In (56a) and (57a), the pre-preposed examples are shown. In (56b) and (57b), both IO and DO are preposed along with the verb, and the sentences are grammatical. In (56c) and (57c), on the other hand, the verb alone is preposed, leaving subject, IO and DO as remnants. The sentences are ungrammatical, as predicted.

- (56) a. Kai-ga Uli-ni Erika-o syookaisi-sae sita.  
           Kai-Nom Uli-Dat Erika-Acc introduce-even did  
           ‘Kai even introduced Erika to Uli.’  
       b. Uli-ni Erika-o syookaisi-sae Kai-ga sita.  
           Uli-Dat Erika-Acc introduce-even Kai-Nom did  
           ‘Even introduce Erika to Uli, Kai did.’  
       c. \*Syookaisi-sae Kai-ga Uli-ni Erika-o sita  
           Introduce-even Kai-Nom Uli-Dat Erika-Acc did

- (57)
- a. Kai-ga Uli-ni Erika-o mise-sae sita.  
Kai-Nom Uli-Dat Erika-Acc show-even did  
'Kai did even show Erika to Uli.'
  - b. Uli-ni Erika-o mise-sae Kai-ga sita.  
Uli-Dat Erika-Acc show-even Kai-Nom did  
'Even show Erika to Uli, Kai did.'
  - c. \*Mise-sae Kai-ga Uli-ni Erika-o sita.  
Show-even Kai-Nom Uli-Dat Erika-Acc did

Next we consider somewhat more complicated cases: leaving one of the objects as a remnant. Do we make any predictions about this? If both objects are base-generated within the same VP, as shown in (58), we expect that we should have the same grammaticality whether we are leaving IO or DO as a remnant. This is independent of the issue on whether IO-DO order is the only base-generated word order. We expect the examples to be both ungrammatical, whether we leave IO as a remnant or DO as a remnant, because either way, we have to scramble the object which is to be left as a remnant out of the VP, and then, front the remnant VP, as shown in (59) and (60). The second step in both derivations, the fronting of the remnant VP, will front a constituent including a trace. If something like the Proper Binding Condition exists, we expect both examples to be ungrammatical. If the Proper Binding Condition does not exist, then, we expect both examples to be grammatical.

(58)





- (59) a. Scramble the indirect object out of VP  
 Kai-ga [Uli-ni<sub>i</sub> [v<sub>P</sub> t<sub>i</sub> Erika-o syookaisi-sae] sita  
 Kai-Nom Uli-Dat<sub>i</sub> t<sub>i</sub> Erika-Acc introduce-even did
- b. Prepose the VP, leaving the IO behind  
 [t<sub>i</sub> Erika-o syookaisi-sae]<sub>j</sub> Kai-ga Uli-ni<sub>i</sub> t<sub>j</sub> sita  
 t<sub>i</sub> Erika-Acc introduce-even<sub>j</sub> Kai-Nom Uli-Dat<sub>i</sub> t<sub>j</sub> did
- (60) a. Scramble the direct object out of VP  
 Kai-ga [Erika-o<sub>i</sub> [v<sub>P</sub> Uli-ni t<sub>i</sub> syookaisi-sae] sita  
 Kai-Nom Erika-acc<sub>i</sub> Uli-Dat t<sub>i</sub> introduce-even did
- b. Prepose the VP, leaving the direct object behind  
 [Uli-ni t<sub>i</sub> syookaisi-sae]<sub>j</sub> Kai-ga Erika-o<sub>i</sub> t<sub>j</sub> sita  
 Uli-Dat t<sub>i</sub> introduce-even<sub>j</sub> Kai-Nom Erika-Acc<sub>i</sub> t<sub>j</sub> did

Consider the examples in (61) and (62). We see that there is a difference in acceptability between leaving IO as a remnant and DO as a remnant. While sentences are grammatical when we leave the IO as a remnant ((61a) and (62a)), the sentence becomes ungrammatical if we leave the DO as a remnant ((61b) and (62b)).<sup>24</sup>

- (61) a. Erika-o syookaisi-sae Kai-ga Uli-ni sita  
 Erika-Acc introduce-even Kai-Nom Uli-Dat did  
 'Even introduce Erika, Kai did to Uli
- b. \*Uli-ni syookaisi-sae Kai-ga Erika-o sita  
 Uli-Dat introduce-even Kai-Nom Erika-Acc did

<sup>24</sup>Previous researchers (Tateishi 1991, Inagaki 1993) assume that the sentence in (61a) and (62a) are not grammatical. However, some of the speakers I consulted with found it grammatical. Notice that what is crucial is that even those speakers who accept the sentence in (61a) and (62a) find the (b) sentences of (61) and (62) ungrammatical. In this paper, I take this difference to be significant and base my analysis on these judgments.

- (62) a. Erika-o mise-sae Kai-ga Uli-ni sita  
           Erika-Acc show-even Kai-Nom Uli-Dat did  
           ‘Even show Erika, Kai did to Uli’
- b. \*Uli-ni mise-sae Kai-ga Erika-o sita  
           Uli-Dat show-even Kai-Nom Erika-Acc did

Why do we have a difference between leaving IO as a remnant and DO as a remnant? Both derivations involve scrambling one of the objects out of VP and preposing the remaining VP, and we have not found a relevant difference to distinguish the good derivation from the bad one.

As mentioned above, it is not a ban against leaving an Accusative Case-marked NP as a remnant that makes sentences ungrammatical when Accusative objects are left as remnant. Recall the examples in (41), repeated here as (63). The verbs in the examples in (63) take Dative Case-marked objects. As can be seen in (63b), preposing the verb alone gives an ungrammatical sentence even when the verb takes Dative object.

- (63) a. Tsutomu-ga [Kai-ni ai-sae] sita.  
           Tsutomu-Nom Kai-Dat meet-even did  
           ‘Tsutomu did even meet Kai.’
- b. \*[Ai-sae] Tsutomu-ga Kai-ni sita.  
           Meet-even Tsutomu-Nom Kai-Dat did
- c. [Kai-ni ai-sae] Tsutomu-ga sita.  
           Kai-Dat meet-even Tsutomu-Nom did  
           ‘Even meet Kai, Tsutomu did.’

The generalization is that the most internal argument, Accusative object in the case of the ditransitive construction and the transitive construction which takes Accusative object and Dative object in the case of the transitive construction which takes Dative object, cannot be left as remnant of the fronted VP.

### 5.2.2.3.2 Analysis

This difference between (a) and (b) examples of (61) and (62) can be given a straightforward explanation, if we assume the Split-VP hypothesis, originally proposed by Marantz (1990) and argued for by Travis (1992), Koizumi (1995), Lasnik (1995), and Bobaljik (1995), among others. Lasnik (1995), and Bobaljik (1995) argue that each argument has its own VP-shell.<sup>25</sup> The ditransitive construction, then, would have the structure in (64).

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<sup>25</sup>Actually, Koizumi (1995) considers but rejects the structure in (63). Specifically, Koizumi does not assume that IOs and DOs belong to different VP-shells. The reason he does not accept this analysis is because of the data with Adverb placement: an adverb cannot intervene between the IO and DO. His examples are shown in (i) (Koizumi 1995:129).

- (i) a. ?\*Mary gave John secretly the book (on Friday).  
 b. ?\*Amber told Ben quietly the story (in the living room).

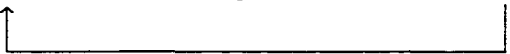
If we assume that VP adverbs can adjoin to any VPs, the badness of the examples in (i) becomes a puzzle since according to the structure in (64), there is a VP projection between the IO and DO to which adverbs are predicted to be able to adjoin. This, hence, is a problem for the structure in (64).

I adopt the structure in (64) in this thesis, however, since my proposal is that Japanese provide evidence for this structure. In fact, Koizumi, himself, provides some empirical evidence for the structure. One evidence comes from the distribution of Numeral Quantifier in English. Consider (ii) (the examples are from Maling 1976, cited in Koizumi (1995)).

- (ii) a. I gave the kids all some candy (to keep them quiet).  
 b. Dad bought the twins both bicycles.

The possible direction to pursue to keep the structure in (64) and to account for the ungrammaticality of (i) is to say that some operation can target the smallest VP, whereas some others cannot. This is why we observe that Pseudogapping and Numeral Quantifier float can target the smallest VP, whereas the Adverb cannot be placed to the smallest VP. To verify this claim, we need to consider more constructions and I leave this for a future research.



- (66) a. Kai-ga [vp<sub>1</sub> [vp<sub>2</sub> Uli-ni [vp<sub>3</sub> Erika-o syookaisi-sae]]] sita  
           Kai-Nom               Uli-Dat Erika-Acc       introduce-even did
- b. [vp<sub>3</sub> Erika-o syookaisi-sae]<sub>i</sub> [Kai-ga [vp<sub>1</sub> [vp<sub>2</sub> Uli-ni t<sub>i</sub>]]] sita
- 

Let us assume for the moment that a trace left within the preposed VP causes a PBC violation. Hence, (b) examples, but not (a) examples, of (61) and (62) violate the PBC.<sup>26</sup>

Notice that the difference between (61a) and (62a) on one hand and (61b) and (62b) on the other is not predicted if both IO-DO and DO-IO orders can be base-generated, as recently proposed by Miyagawa (1996). Consider the following structure:

- (67) Kai-ga [vp<sub>1</sub> [vp<sub>2</sub> Erika-o [vp<sub>3</sub> Uli-ni syookaisi-sae]]] sita  
           Kai-Nom               Erika-Acc       Uli-Dat introduce-even did

If this structure can be base-generated, we can scramble VP<sub>3</sub> to have the DO as a remnant. That is, the resulting sentence should have the same grammatical status as (61a) and (62a). Hence, the difference between (a) examples and (b) examples of (61) and (62) can be taken as an argument against Miyagawa's analysis.

### 5.2.2.3.3 Possible Objection

There is a possible objection to the analysis presented in section 5.2.2.3.2. When we leave IO as a remnant of the VP-preposing construction, IO gets a benefactive reading, which is not forced in non-preposed structure. Mamoru Saito (p.c.) among others have suggested that this may be because the sentences I have been assuming to involve the VP-preposing construction do not involve movement of VP which excludes

<sup>26</sup>One question that arises at this point is the status of PBC. That is, can we derive this condition from something else? I will come back to this question later on in the chapter.

IO. They suggest that IO is base-generated as the object of *suru*. If this is the case, then there must be PRO in the fronted VP, controlled by the Dative phrase, as shown in (68).

(68) [PRO<sub>i</sub> PRO<sub>j</sub> DO V]-sae Subj<sub>i</sub> Dat<sub>j</sub> *suru*

To maintain this alternative analysis, however, we need to make some stipulations. First, we need to assume that *suru* cannot take the Accusative phrase as its argument just in case we have the VP-preposing construction. As we see in (69), the verb *suru* can take Accusative object in other constructions.

- (69) a. Kai-ga shukudai-o sita.  
           Kai-Nom homework-Acc did  
           ‘Kai did homework.’  
       b. Kai-ga kari-o sita.  
           Kai-Nom hunting-Acc did  
           ‘Kai did hunting.’

That is, *sita* could take both Dative phrase and Accusative phrase as its argument. Then, that the Accusative phrase cannot be the argument of *suru* in the VP-preposing construction is a property of the VP-preposing construction, not a property of *suru* itself.

Another stipulation is that Dative phrase can be the argument of *suru* if the embedded verb is ditransitive. This is so due to the ungrammaticality of the example in (41b). Recall that in (41b), the Dative argument of the verb is left as a remnant. The sentence is ungrammatical, however, indicating that in that case, Dative phrase cannot be the argument of *suru*. This, I find to be a very dubious assumption.

The last question is regarding the proposed structure. According to this alternative analysis, there is a PRO in the preposed constituent. When we have a ditransitive verb as the embedded predicate and the Dative phrase as a remnant, then, there will be two PROs in the preposed constituent, which are controlled by the subject

and the Dative phrase. The question is, how do we make sure that each argument controls the right PRO? Though this structure does not make the analysis untenable, it does make the analysis seem a bit strange.

For these reasons, I reject the alternative analysis shown in this subsection.

#### 5.2.2.4 *Deriving the Proper Binding Condition*

As I have mentioned above, I do not assume that the Proper Binding Condition exists as a condition on surface structure. There are examples, however, whose ungrammatical status have been attributed to the Proper Binding Condition violation. For example, the examples in (70), repeated here as (70), are assumed to be ruled out because they violate the Proper Binding Condition.

- (70) a.  $*[t_i \text{ Kaki-sae}]_j$  Kai-ga rombun-o<sub>i</sub>  $t_j$  sita  
 $t_i$  Write-even<sub>j</sub> Kai-Nom paper-Acc<sub>i</sub>  $t_j$  did
- b.  $*[\text{Hanako-ga } t_i \text{ yonda to}]_j$  sono hon<sub>i</sub>-o Taro-ga  $t_j$  itta  
 Hanako-Nom  $t_i$  read that that<sub>j</sub> book<sub>i</sub>-Acc Taro-Nom  $t_j$  said

In this section, I will discuss some issues related to the Proper Binding Condition. Takano (1993), Kitahara (1994), Oka (1996), among others have tried to derive the condition from other part of grammar. What I will do in this section, then, is to show that the analysis and data in this chapter are consistent with their analysis.

##### 5.2.2.4.1 VP Topicalization in German

Let us consider VP-Topicalization in German. As is well known, German exhibits V2 structure in the matrix clause. What it means is that the verb occupies the second position, which is assumed to be in C, and some constituent must occupy the first position, which is the Spec of CP (Koster 1975, among others). Traditionally, the

constituent that is in the first position is referred to as being topicalized. In (71), some of the possible structures are shown. In (71a), the subject is topicalized to the first position (the Spec of CP). In (71b), the object is topicalized to the first position. In (71c), the book and the past participle, *gelesen*, are topicalized to the first position. In (71d), the past participle alone is topicalized.

- (71) a. [Hans] muß das Buch gelesen haben.  
           Hans must the book read have  
           ‘Hans must have read the book.’
- b. [Das Buch] muß Hans gelesen haben.  
           the book must Hans read have  
           ‘Hans must have read the book.’
- c. [Das Buch gelesen] muß Hans haben.  
           the book read must Hans have  
           ‘Hans must have read the book.’
- d. [Gelesen] muß Hans das Buch haben.  
           read must Hans the book have  
           ‘Hans must have read the book.’
- e. [Gelesen haben] muß Hans das Buch.  
           read have must Hans the book  
           ‘Hans must have read the book.’

I adopt the standard assumption that only an XP can move into the Spec position. This implies that whatever moves into the first position must be a maximal projection. In (71a) and (71b), it is DPs that move into the first position. In (71c), it is the VP, which consists of the main verb and the object, that moves into the first position. The interesting cases are (71d) and (71e). If we are to maintain that only maximal projections raise to the Spec of CP, [*Gelesen*] and [*Gelesen haben*] must be XPs.

In the literature, it has been proposed that what happens in cases like (71d) and (71e) is that the object scrambles out of the VP, and the remnant VP raises to the Spec of CP (Müller 1996, among others). The derivation for (71d) is shown in (72). In (72), the



object, *das Buch* 'the book', scrambles out of the VP, and then, the remnant VP which contains the trace and the past participle *gelesen* raises to the first position.

- (72)        [  $t_i$  Gelesen] $_j$  muß Hans das Buch $_i$   $t_j$  haben.  
                $t_i$  read            must Hans the book     $t$  have

Let us, for the sake of discussion, assume that the Proper Binding Condition exists as a condition on surface representation. Since the representation in (72) contains an unbound trace in the topicalized VP, the sentence violates the Proper Binding condition. But the sentence is grammatical.

Müller (1996) proposes that the following generalization, shown in (73), holds. In fact, Takano (1993) independently makes a similar generalization already, so I will call this the Takano/Müller generalization.

- (73)    Takano/Müller Generalization  
           An unbound trace created by movement of type alpha must not be unbound and contained within an XP that also underwent movement of type alpha.

- (74)    \* [  $t_i$  ] $_j$  XP $_i$   $t_j$

The structure in (74) is ungrammatical if the operation that moved XP from the fronted constituent (before it was fronted) and the operations that moved the fronted constituent are the same type.

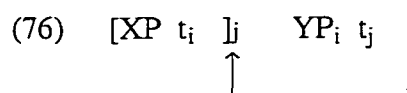
The basis for this generalization comes from the difference shown in (75). Müller (1996) observes that while topicalization of a phrase, which contains an unbound trace of a scrambled element is allowed, scrambling of a phrase which contains an unbound trace of a scrambled element is not allowed, as shown in (75).

## (75) Scrambling vs. Topicalization in German (Müller 1996)

- a. [  $t_i$  zu lesen ]<sub>j</sub> hat keiner [das Buch]<sub>i</sub>  $t_j$  versucht  
       t to read has noone the book t tried  
       'Noone tried to read the book'
- b. \*daß [  $t_i$  zu lesen ]<sub>j</sub> keiner [das Buch]<sub>i</sub>  $t_j$  versucht hat  
       that  $t_i$  to read noone the book t tried has

The difference is that in the case of (75a), the unbound trace in the phrase in the first position is created by scrambling. The movement that moved the phrase to the first position, however, is topicalization. Since the two movements involved to derive (75a) are of two different kinds, the sentence is grammatical. What happens in (75b)? First, *das Buch* scrambles out of the infinitival clause, and then the infinitival clause containing the trace of *das Buch* scrambles to a position higher than the landing site of *das Buch*. The two movements involved to derived (75b) are the same kind: scrambling.

Let us illustrate the structure that leads to ungrammaticality to make things clearer. What the Takano/Müller generalization says is that when we have the structure shown in (76), the type of movement which moves YP out of XP cannot be the same as the type of movement which moves XP over YP.



What is crucial is that when two operations are of the same type, we observe the effect of the PBC. If two operations are not of the same type, on the other hand, the trace left by one kind of operation does not induce the Proper Binding Condition effect even if the fronted phrase contains an unbound trace as a result of the movement.<sup>27</sup>

<sup>27</sup>As pointed out to me by Jonathan Bobaljik (p.c.), we obtain the parallel pattern in German as in Japanese with respect to what can be left as a remnant of VP-Topicalization in German. Consider (i) and (ii). In (i),

Kurafuji (1995) observes some data that indicate that the Takano/Müller generalization holds in Japanese as well. The examples are shown in (77). In (77a), the object *Mary-o* scrambles out of a small clause, which is followed by the scrambling of the small clause to a sentence initial position. Notice that two operations involved in deriving (77a) are both scrambling. In (77b), on the other hand, the object scrambles out of the small clause. The small clause in this example, however, is a wh-phrase. Kurafuji (1995) argues that the second operation of the derivation, which raises the wh-small clause to the sentence initial position, counts as wh-movement.

- (77) a. \*[SC  $t_i$  kirei-ni ]<sub>j</sub> biyoosi-ga Mary-o<sub>i</sub>  $t_j$  sita  
           t beautiful beautician-Nom Mary-Acc t made
- b. [SC  $t_i$  donna-ni kirei-ni ]<sub>j</sub> biyoosi-ga Mary-o<sub>i</sub>  $t_j$  sita no?  
           how-much beautiful beautician-Nom Mary-Acc did Q  
       ‘How beautiful did the beautician make Mary?’

Takahashi (1993) argues that long-distance scrambling of a wh-phrase is, indeed, wh-movement. Let us modify his proposal slightly and assume that any kind of scrambling of a wh-phrase, long-distance or short-distance, counts as wh-movement. We can, then, successfully distinguish the examples in (77a) and (77b). The difference between (77a) and (77b) is that in (77a), we have two applications of the same type of movement, whereas in (77b), we do not. The difference in grammaticality in (77) is important in that

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the DO and the verb are fronted. In (ii), both objects and the verb are fronted (examples from Bobaljik 1995, (176)).

- (i) Ein Buch gegeben hat er der Maria  
       a book given has he the Maria  
       ‘Given a book is what he has done to Maria’
- (ii) Der Maria ein Buch gegeben hat er noch nicht  
       the Maria a book given has he still not  
       ‘Given a book to Maria, is what he has still not done’

Crucially, as in Japanese, it is not possible to front the IO and verbs, as (iii) indicates.

- (iii) \*Der Maria gegeben hat er ein Buch.  
        the Maria given has he a book

these examples show that the Takano/Müller generalization holds in Japanese as well. That is, when we have a structure like (76) as a result of two applications of scrambling, we should obtain the Proper Binding Condition effect. This is, indeed, what we find, as shown in (44), repeated here, again, in (78). In (78a), the object, *rombun-o*, scrambles out of VP. Then, the VP fronts, containing the unbound trace of *rombun-o*. In (78b), *sono hon-o* 'that book', scrambles out of the embedded CP, and then, the embedded CP scrambles to the sentence initial position, containing the unbound trace. Since the trace in the scrambled CP is created by scrambling, the sentence in (78b) observes the Takano/Müller Generalization effect.

- (78) a.  $*[t_i \text{ Kaki-sae}]_j \text{ Kai-ga } \text{rombun-o}_i t_j \text{ sita}$   
 $t_i \text{ Write-even}_j \text{ Kai-Nom paper-Acc}_i t_j \text{ did}$
- b.  $*[\text{Hanako-ga } t_i \text{ yonda to}]_j \text{ sono hon}_i\text{-o } \text{Taro-ga } t_j \text{ itta}$   
 $\text{Hanako-Nom } t_i \text{ read that that}_j \text{ book}_i\text{-Acc Taro-Nom } t_j \text{ said}$

The example in (78a), then, shows that the operation which fronts the VP in VP-preposing construction is scrambling, not other kind of movement operation like topicalization.




#### 5.2.2.4.2 Japanese VP-preposing vs. German Remnant VP-Topicalization

If every operation needs a driving force, an optional operation, such as scrambling, is problematic, lacking an apparent morphological driving force. Let us assume, although controversially, that Japanese scrambling is triggered by a feature (Kitahara 1994, Sauerland 1996, Oka 1996, among others). The optionality of the scrambling operation, then, reflects the optionality of having scrambling features in a structure. Let us further assume that there is only one kind of feature that triggers scrambling. The well-known A/A' distinction of scrambling derives from the position where

the feature is. The proposal in this section on the difference between Japanese VP-preposing and German VP-Topicalization is that it is scrambling that raises the VP in VP-preposing in Japanese, but in German, it is Topicalization. Consider (67), repeated here as (79), with brackets added.


- (79) Kai-ga [vp<sub>1</sub> [vp<sub>2</sub> Uli-ni [vp<sub>3</sub> Erika-o syookaisi]]]-sae sita.  
 Kai-Nom Uli-Dat Erika-Acc introduce-even did  
 'Kai did even show Erika to Uli.'

Let us assume that heads can optionally have a scrambling feature.<sup>28</sup> I assume that the scrambling features are located near the landing site of a scrambled element. From (79), we can scramble VPs such as VP<sub>2</sub> and VP<sub>3</sub>, as shown in (80) and DPs such as IO and DO, as shown in (81). In all the examples in (80) and (81), the scrambling feature is located around the sentence initial position. For concreteness, let us assume that the feature is in T, and the scrambling takes place to the Spec of TP.<sup>29</sup>

- (80) a. [vp<sub>2</sub> Uli-ni [vp<sub>3</sub> Erika-o syookaisi]]-sae<sub>i</sub> Kai-ga [vp<sub>1</sub> t<sub>i</sub> ] sita  
 Uli-Dat Erika-Acc introduce-even Kai-Nom t did  
  
 b. [vp<sub>3</sub> Erika-o syookaisi]-sae<sub>i</sub> Kai-ga [vp<sub>1</sub> [vp<sub>2</sub> Uli-ni t<sub>i</sub> ] ] sita  
 Erika-Acc introduce-even Kai-Nom Uli-Dat t did  
  
 (81) a. Uli-ni<sub>i</sub> Kai-ga [vp<sub>1</sub> [vp<sub>2</sub> t<sub>i</sub> [vp<sub>3</sub> Erika-o syookaisi]]]-sae sita  
 Uli-Dat Kai-Nom t Erika-Acc introduce-even did  


<sup>28</sup>This assumption is needed to capture that scrambling is an optional operation. (See Boskovic and Takanashi 1998 for a different view on scrambling.)

<sup>29</sup>Presumably to the outer Spec of TP, since the inner Spec of TP is occupied by the subject.

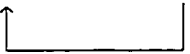
- b. Erika-o<sub>i</sub> Kai-ga [vP<sub>1</sub> [vP<sub>2</sub> Uli-ni [vP<sub>3</sub> t<sub>i</sub> syookaisi]]]-sae sita  
 Erika-Acc Kai-Nom Uli-Dat t introduce-even did
- 

All the examples in (80) and (81) involve an application of scrambling. Let us next consider what happens when there are two scrambling features in a structure.

As before, I assume that we can have scrambling features optionally.<sup>30</sup> When there are two applications of scrambling for a derivation, that implies that there were two scrambling features triggering the movements. Consider potential derivations in (82) and (83). Let us assume that phrases that undergo scrambling also bear a scrambling feature, which will be indicated as "-SF" in the following structures. In (82a), there are two scrambling features that trigger movements, SF1 and SF2. There are also two phrases, YP and XP, that bear scrambling features, hence, can be attracted by the scrambling features. First SF2 attracts the closest phrase that has the relevant feature, namely, the scrambling feature. The closest phrase that has the scrambling feature from SF2 is YP. Next, SF1 attracts the closest phrase that bears the scrambling feature. In (82c), I indicated the possibility that YP is attracted by SF1 as well. This is a possibility if the scrambling feature is accessible even after being checked once.

- (82) a. SF1 SF2 [YP-SF.....XP-SF.....]

- b. Scrambling feature SF2 attracts the closest phrase that has a scrambling feature: YP

- SF1 SF2 [YP-SF.....XP-SF.....] t<sub>YP</sub>
- 

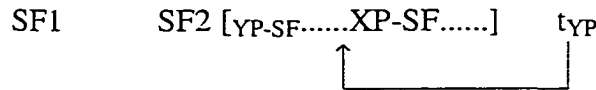
<sup>30</sup>I will indicate the position of scrambling feature as SF, henceforth.

- c. Scrambling feature SF1 attracts the closest phrase that has a scrambling feature, when the scrambling feature of the attracted phrase is not erased: YP  
 SF1[YP-SF.....XP-SF.....] SF2 t[YP-SF.....XP-SF.....]



In (83b), on the other hand, the possibility that YP is not the closest phrase from SF1 is shown. This may be the case if the scrambling feature of attractee, YP, is not accessible for SF1, having erased after being checked by SF2.

- (83) a. Scrambling feature SF2 attracts the closest phrase that has a scrambling feature: YP



- b. Scrambling feature SF1 attracts the closest phrase which has a scrambling feature, when the scrambling feature of the attracted phrase is erased: XP  
 SF1 XP-SF SF2 [YP-SF.....t<sub>XP-SF</sub>.....] t<sub>YP</sub>



In either (82) or (83), there is no unbound trace.

What kind of derivation creates an unbound trace? It has to be the case that the smaller phrase, XP, raises to SF2 and then, the larger phrase, YP, raises to the SF1, as shown in (84).

- (84) a. Scrambling feature SF2 attracts XP.  
 SF1      SF2 XP-SF<sub>i</sub> [YP-SF ..... t<sub>i</sub>.....]



- b. Scrambling feature SF1 attracts YP  
 SF1 [YP ..... t<sub>i</sub> .....]<sub>j</sub> SF2 XP<sub>i</sub> t<sub>j</sub>



Note, however, that the derivation in (84) violates Relativized Minimality (Rizzi 1988), or its successor, the Shortest Move Condition (Chomsky 1995, among others). This is so because XP is attracted by SF2, even though YP is closer to the attracting feature, SF2, since YP contains XP. Hence, the derivation shown in (84) cannot occur if SF1 and SF2 are the same type of movement. That is, an unbound trace, which would be ungrammatical according to the Takano/Müller generalization, cannot be created.

Let us go back to the examples in (61), repeated here in (85). I propose that (85b) is not derivable, as an instance of the same effect. That is, to derive (85b), Relativized Minimality will be violated, but not to derive (85a), as shown in (86).

- (85) a. Erika-o syookaisi-sae Kai-ga Uli-ni sita  
           Erika-Acc introduce-even Kai-Nom Uli-Dat did  
           ‘Even introduce Erika, Kai did to Uli
- b. \*Uli-ni syookaisi-sae Kai-ga Erika-o sita  
           Uli-Dat introduce-even Kai-Nom Erika-Acc did

To derive (85b), scrambling has to apply to the base-generated structure. One instance of scrambling should scramble the direct object out of VP2, and the remnant VP2 should scramble to the sentence initial position. For this derivation to take place, there must be two scrambling features in the sentence; one in V1, and the other in T (or maybe in C, if Kubo (1992) is right.) When the scrambling feature in V1 attracts the closest scrambling feature, it attracts VP2, since that is the closest matching feature from V1. When the scrambling feature located around TP/C attracts the closest phrase with a matching feature, it again attracts the VP2 ((86b)), if the scrambling feature is not erased, or the direct object, if the scrambling feature is erased ((86c)).<sup>31</sup>

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<sup>31</sup>Sauerland (1996) proposes that in Japanese, checking of the scrambling feature optionally erases the feature of moved elements. Depending on whether the feature is erased or not, we get the difference between attracting the object or the VP.



- (86) a. SF2 attracts VP2  
 SF1 Kai-ga SF2 [VP2-SF Uli-ni [VP3 Erika-o-SF syookaisi]]-sae t<sub>VP2</sub> sita
- b. SF1 attracts VP2  
 SF1 [VP2-SF U-ni [VP3 E-o-SF syookaisi]]-sae K-ga SF2 t<sub>VP2</sub> t<sub>VP2</sub> sita
- c. SF1 attracts direct object  
 SF1 E-o-SF K-ga SF2 [VP2-SF U-ni [VP3 t<sub>E-o-SF</sub> syookaisi]]-sae t<sub>VP2</sub> sita


That is, it is not possible to derive (85b) without violating the Relativized Minimality. This is so because to derive (85b), what must happen is that SF2 attracts the matching feature in the direct object, skipping the closer matching feature in VP2. Then, the remnant VP2 is attracted by the scrambling feature SF1.

- (87) a. SF2 attracts direct object  
 SF1 K-ga SF2 E-o-SF [VP2-SF U-ni [VP3 t<sub>Erika-o-SF</sub> syookaisi]]-sae sita
- b. SF1 attracts VP2  
 SF1 [VP2-SF U-ni [VP3 t<sub>E-o-SF</sub> syookaisi]]-sae K-ga SF2 E-o-SF t<sub>VP2</sub> sita

To derive (85a), on the other hand, we need only one scrambling feature, located around TP/C area, and the phrase that bears the matching feature is VP3. Hence, there is no ambiguity on which phrase gets attracted by the scrambling feature, deriving (85a), as shown in (88).

- (88) SF1 attracts VP3  
 SF1 [VP3-SF Erika-o syookaisi]-sae Kai-ga [VP2 Uli-ni t<sub>VP3</sub> ] sita

Notice that the same kind of analysis is not available if both the IO-DO and DO-IO orders can be base-generated. If both IO-DO and DO-IO order can be base-generated, we expect to be able to derive (85b) in the same way as we derive (85a), as shown in (89).

- (89) a. SF1 Kai-ga [vp<sub>2</sub> Erika-o [vp<sub>3-SF</sub> Uli-ni syookaisi]-sae ] sita  
 b. SF1 attracts the closest phrase with a matching feature: VP<sub>3</sub>  
 SF1 [vp<sub>3-SF</sub> Uli-ni syookaisi]-sae Kai-ga [vp<sub>2</sub> Erika-o t<sub>vp<sub>3</sub></sub>] sita
- 

### 5.3 Conclusions

In this chapter, I argued that the base-generated word order between the indirect object and the direct object is IO-DO, and that the DO-IO order is derived from the IO-DO order via movement of the direct object. The empirical evidence for this proposal comes from the Chain Condition effect with the reflexive anaphor, *karezis*, quantifier scope relation, and the VP-preposing construction in Japanese.

I have argued that the strongest evidence of the proponents of the base-generation hypothesis does not show what they claim, namely, the base-generated DO-IO order. Their evidence is interesting, however, in that it shows that the Japanese reciprocal anaphor has a complex structure, similar to the English reciprocal anaphor, *each other*, as proposed by Heim, Lasnik, and May (1991) and others.

In addition, the data from the VP-preposing construction provide additional evidence for the Split-VP hypothesis, put forth by Bobaljik (1995) and Lasnik (1995).

This approach, the movement hypothesis, seems to me to also be theoretically more desirable than the base generation hypothesis, especially given that the word order does not bear on the meaning difference in Japanese. Consider the linking mechanism,

which establishes the predication relation between arguments and predicates, and more specifically, what this mechanism must take into account to link the arguments to the semantically correct argument positions of the verb. According to the movement analysis, the argument-predicate relation is only sensitive to the base-position of the arguments. According to the base-generation hypothesis, on the other hand, the argument-predicate relation must be sensitive to base-positions as well as to the Case-marking of the arguments. The base-generation hypothesis, hence, requires a more complicated linking mechanism.

## Chapter 6: Covert EPP

### 6.1 Introduction

In chapter 2, I proposed that the unaccusative verbs license Nominative Case of their internal arguments, Nominative phrases. As a result, Nominative phrases of the unaccusative construction do not raise for Case. The evidence for this proposal came from the scope relations between the Locative and Nominative phrases.

In this chapter, I bring up a new puzzle: I show that a different test for c-command, namely, anaphor binding, indicates that a different c-command relation holds between the Locative and Nominative phrases with the unaccusative construction. To be more specific, according to the test, we find that the Nominative phrase c-commands the Locative phrase, even when they are in the Locative-Nominative order. This is a puzzle. Recall that the Locative-Nominative order resulted in unambiguous scope relation between the quantifiers. This indicates that the Nominative phrase does not c-command the Locative phrase when they appear in the Locative-Nominative order. In this chapter, I will argue that this is because movement-like relation between the associate and the Spec of T holds covertly.

### 6.2 Anaphor Binding

#### 6.2.1 Some facts about *otagai* binding

Let us first consider the data. As discussed in Chapter 5, the Japanese anaphor *otagai* 'each other' exhibits Condition A effect because of the anaphoric nature of the

trace left by *each*.<sup>1</sup> Consider the examples in (1). In (1a), the anaphor is contained within the object DP while the antecedent is the subject. Since the antecedent c-commands the anaphor, the anaphor is successfully bound, satisfying binding Condition A. In contrast, in (1b), the anaphor is contained within the subject, and its antecedent is the object. The arguments are ordered subject-object. From the object position, the antecedent does not c-command the anaphor in the subject, hence, lacking the c-command relation, the antecedent cannot bind the anaphor. As a result, the sentence is ungrammatical, violating condition A.

- (1) a. [Osamu to Hiroshi]<sub>i</sub>-ga [otagai<sub>i</sub>-no hahaoya]-o hometa.  
 Osamu and Hiroshi-Nom each-other-Gen mother-Acc praised  
 'Osamu and Hiroshi praised each other's mothers'
- b. \*[otagai<sub>i</sub>-no hahaoya]-ga [Osamu to Hiroshi]<sub>i</sub>-o hometa.  
 each-other-Gen mother-Nom Osamu and Hiroshi-Acc praised

The following examples from the ditransitive construction show the same point: the antecedent has to c-command the anaphor. In (2a) and (2b), the antecedents are the subjects, and anaphors are contained within either the indirect object ((2a)), or the direct object ((2b)). The sentences are grammatical since the anaphors are c-commanded by their antecedents, hence, bound by their antecedents. When the anaphors are in the subject, on the other hand, as in (2c) and (2d), the sentences are ungrammatical.

- (2) a. [Osamu to Hiroshi]-ga<sub>i</sub> [otagai<sub>i</sub>-no hahaoya]-ni Misa-o  
 Osamu and Hiroshi-Nom each-other-Gen mother-to Misa-Acc  
 syookaisi-ta.  
 introduce-past  
 'Osamu and Hiroshi introduced Misa to each other's mothers.'

---

<sup>1</sup>In this chapter, I discuss as if the anaphor *otagai* obeys condition A, because the result of the discussion in Chapter 5 does not affect the logic of the analysis in this Chapter.

- b. [Osamu to Hiroshi]-ga<sub>i</sub> Misa-ni [otagai<sub>i</sub>-no hahaoya]-o  
 Osamu and Hiroshi-Nom Misa-Dat each-other-Gen mother-Acc  
 syookaisita.  
 introduced  
 'Osamu and Hiroshi introduced each other's mothers to Misa.'
- c. \*[Otagai<sub>i</sub>-no hahaoya]-ga [Osamu to Hiroshi]-ni<sub>i</sub> Misa-o  
 Each-other-Gen-mother-Nom Osamu and Hiroshi-Dat Misa-Acc  
 syookaisita.  
 introduced
- d. \*[Otagai<sub>i</sub>-no hahaoya]-ga Misa-ni [Osamu to Hiroshi]-o<sub>i</sub>  
 Each-other-Gen mother-Nom Misa-Dat Osamu and Hiroshi-Acc  
 syookaisita.  
 introduced

These sentences show, then, that the anaphor *otagai* needs a c-commanding antecedent.

Another aspect of anaphor binding is that scrambling the antecedent to a position which c-commands the anaphor saves a condition A violation in scrambling languages. (Mahajan 1990, Webelhuth 1990, Saito 1992, etc.). Consider the examples below. We have examples from (1b), (2c) and (2d), repeated below as (3a), (4a) and (4c). As we just saw, in (3a), (4a) and (4c), objects are the potential antecedents for the anaphor, while the anaphors are contained within the subject. In these examples, the anaphors are not c-commanded by the antecedents, and as a result, the sentences are ungrammatical violating condition A. When we scramble the antecedent over the subject, however, as shown in (3b), (4b), and (4c), the examples become grammatical. That is, scrambling the antecedent to a position which c-commands the anaphor obviates the condition A violation.<sup>2</sup>

- (3) a. \*[Otagai<sub>i</sub>-no hahaoya]-ga [Osamu to Hiroshi]<sub>i</sub>-o hometa.

---

<sup>2</sup>This scrambling to a position that c-commands the anaphor cannot be long-distance (across the finite clause boundary). It has been observed that the long-distance scrambling does not obviate the binding condition A violation (references). This is attributed to the A' nature of the long-distance scrambling. See (Mahajan 1990, Webelhuth 1991, Saito 1992, among others) for more discussion on this issue.

Each-other-Gen mother-Nom Osamu and Hiroshi-Acc praised

- b. [Osamu to Hiroshi]<sub>i</sub>-o [otagai-no hahaoya]-ga hometa.  
 Osamu and Hiroshi-Acc each-other-Gen mother-Nom praised  
 'Each other's mothers praised Osamu and Hiroshi.'

- (4) a. \*[Otagai-no hahaoya]-ga [Osamu to Hiroshi-ni Misa-o  
 Each-other-Gen-mother-Nom Osamu and Hiroshi-Dat Misa-Acc  
 syookaisita.  
 introduced  
 b. [Osamu to Hiroshi-ni [Otagai-no hahaoya]-ga Misa-o  
 Osamu and Hiroshi-Dat each-other-Gen-mother-Nom Misa-Acc  
 syookaisita.  
 introduced  
 'To Osamu and Hiroshi, each other's mothers introduced Misa.'  
 c. \*[Otagai-no hahaoya]-ga Misa-ni [Osamu to Hiroshi]-o  
 Each-other-Gen mother-Nom Misa-Dat Osamu and Hiroshi-Acc  
 syookaisita.  
 introduced  
 d. [Osamu to Hiroshi]-o [Otagai-no hahaoya]-ga Misa-ni  
 Osamu and Hiroshi-Acc each-other-Gen mother-Nom Misa-Dat  
 syookaisita.  
 introduced  
 'Osamu and Hiroshi, each other's mothers introduced to Misa.'

So far, we have seen two ways to license the anaphor *otagai*. One way is for an antecedent to c-command the anaphor in the base-generated configuration. The other is to scramble the antecedent from the base-generated position to a position which c-commands the anaphor. By scrambling the antecedent, the anaphor *otagai* can be licensed by the scrambled antecedent.

### 6.2.2 Binding in the Unaccusative and Passive Constructions

Let us now examine the passive and unaccusative constructions. The scope relations have indicated that the Nominative and Locative phrases c-command each other (via reconstruction possibilities) whether they are in the Locative-Nominative or the

Nominative-Locative orders in the passive construction. In the unaccusative construction, on the other hand, the Locative phrase unambiguously c-commands the Nominative phrase when they appear in the Locative-Nominative order. When they appear in the Nominative-Locative order, however, the Nominative and Locative phrases c-command each other (via reconstruction possibilities). It is not a surprise, then, if the Nominative phrase binds the anaphor inside of the Locative phrase, even when they appear in the Locative-Nominative order. And this is, in fact, what we find. In (5) and (6), all the examples are grammatical, showing that the anaphor can be bound by the Nominative phrase, whether they are in the Locative-Nominative or Nominative-Locative orders.

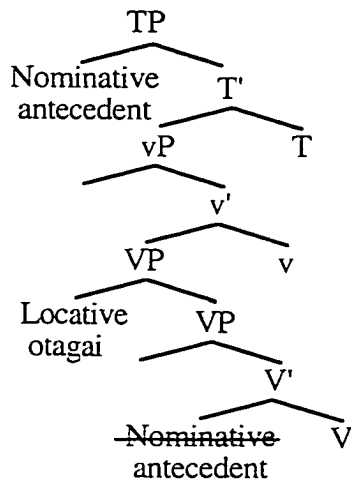
- (5) a. [Otagai<sub>i</sub>-no ie]-ni [Uli to Kai]<sub>i</sub>-ga okura-re-ta.  
 each-other-Gen house-Loc Uli and Kai-Nom send-Pass-past  
 'Uli and Kai were sent to each other's houses.'
- b. [Uli and Kai]<sub>i</sub>-ga [otagai<sub>i</sub>-no ie]-ni okura-re-ta.  
 Uli and Kai-Nom each-other-Gen house-Loc send-Pass-past  
 'Uli and Kai were sent to each other's houses.'
- (6) a. [Otagai<sub>i</sub>-no ie]-ni [Uli to Kai]<sub>i</sub>-ga maneka-re-ta.  
 each-other-Gen house-Loc Uli and Kai-Nom invite-Pass-past  
 'Uli and Kai were invited to each other's houses.'
- b. [Uli and Kai]<sub>i</sub>-ga [otagai<sub>i</sub>-no ie]-ni maneka-re-ta.  
 Uli and Kai-Nom each-other-Gen house-Loc invite-Pass-past  
 'Uli and Kai were invited to each other's houses.'

Let us assume that this is due to possible LF representations in which the anaphors are c-commanded by the antecedents, as shown in (7). With the passive construction, the Nominative phrase raises to the Spec of TP, as shown in (7a) and (7b). (7a) shows a derivation which stops after the raising of the subject. As a result, we obtain the Nominative-Locative order. Since the Locative phrase is base-generated below the Spec

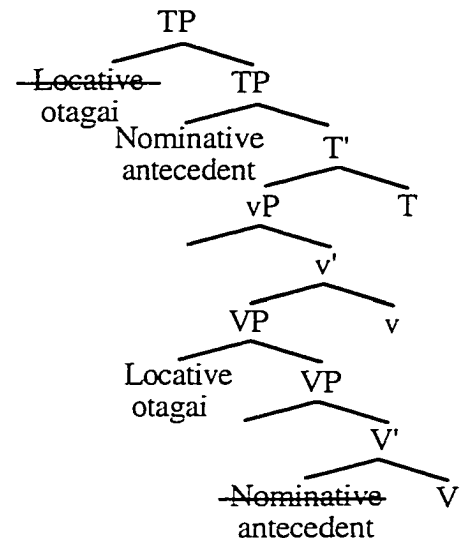


of TP, which is the landing site for the Nominative phrase, the anaphor in the Locative phrase can be bound by the antecedent in the Nominative phrase. (7b) shows a derivation in which the Locative phrase scrambles over the Nominative phrase after the Nominative phrase raises to the Spec of TP. As shown in (7b), there is an LF representation in which the antecedent in the Nominative phrase c-commands the anaphor in the Locative phrase, namely, when the top copy of the Locative phrase deletes and the bottom copy of the Nominative phrase deletes.<sup>3</sup>

(7) a.



b.



Next consider the unaccusative construction. What we predict, according to the c-command relation we observed using the scope relations, is that the Nominative phrase should not be able to bind the anaphor in the Locative phrase when they are in the Locative-Nominative order. This is so since the Locative phrase unambiguously c-

<sup>3</sup>I assume the Copy-and-Delete theory of movement (Chomsky 1995), as discussed in Chapter 2. That is, a movement operation leaves a copy of the moved element in the original position (and an intermediate landing site when there is one). At LF, we either delete the copy which is in the surface position or that in the base-position. I assume that we obtain the reconstruction effect when the copy in the surface position is deleted. See Chapter 2 for more discussion.

commands the Nominative phrase when they appear in the Locative-Nominative order. As you see in (8)-(11) below, however, all the examples with unaccusative verbs are grammatical, whether they are in the Locative-Nominative order ((a) examples) or the Nominative-Locative order ((b) examples).

- (8) a. [Otagai<sub>i</sub>-no heya]-ni [Uli to Kai]<sub>i</sub>-ga ita.  
 each-other-Gen rooms-Loc Uli and Kai-Nom was  
 'Uli and Kai were in each other's rooms.'
- b. [Uli and Kai]<sub>i</sub>-ga [otagai<sub>i</sub>-no heya]-ni *t* ita.  
 Uli and Kai-Nom each-other-Gen room-Loc *t* was  
 'Uli and Kai were in each other's rooms.'
- (9) a. [Otagai<sub>i</sub>-no ie]-ni [Uli to Kai]<sub>i</sub>-ga tuita.  
 each-other-Gen house-Loc Uli and Kai-Nom arrived  
 'Uli and Kai arrived at each other's houses.'
- b. [Uli to Kai]<sub>i</sub>-ga [otagai<sub>i</sub>-no ie]-ni *t* tuita.  
 Uli and Kai-Nom each-other-Gen house-Loc *t* arrived  
 'Uli and Kai arrived at each other's houses.'
- (10) a. [Otagai<sub>i</sub>-no butai]-ni [Orin to Rob]<sub>i</sub>-ga agatta.  
 each-other-Gen stage-Loc Orin and Rob-Nom went-up  
 'Orin and Rob went up to each other's stages.'
- b. [Orin to Rob]<sub>i</sub>-ga [otagai<sub>i</sub>-no butai]-ni *t* agatta.  
 Orin and Rob-Nom each-other-Gen stage-Loc *t* went-up  
 'Orin and Rob went up to each other's stages.'
- (11) a. [Otagai<sub>i</sub>-no heya]-ni [Susi to Jonathan]<sub>i</sub>-ga haitta  
 each-other-Gen room-Loc Susi and Jonathan-Nom entered  
 'Susi and Jonathan entered each other's rooms'
- b. [Susi to Jonathan]<sub>i</sub>-ga [otagai<sub>i</sub>-no heya]-ni *t* haitta  
 Susi and Jonathan-Nom each-other-Gen room-Loc *t* entered  
 'Susi and Jonathan entered each other's rooms'

As we see above, the anaphor inside of the Locative phrase is bound by the Nominative phrase. This, then, shows that the Nominative phrase, the antecedent, c-commands into the Locative phrase, even when they appear in the Locative-Nominative order.

There is another piece of evidence that shows that the Nominative phrase c-commands into the Locative phrase even when they appear in the Locative-Nominative order, as pointed out by Uli Sauerland (p.c.). This involves condition C effect. Consider the examples in (12). In (12a), the R-expression, which is coreferent with the Nominative Case-marked pronoun, is in the Locative phrase. In (12b), on the other hand, the pronoun, which is coreferent with the Nominative Case-marked R-expression, is inside of the Locative phrase. Since the Nominative phrase does not c-command the Locative phrase, the R-expression is not bound by the coreferent pronoun in (12a), hence, it is free, not violating the Condition C. It is a surprise, then, that the example in (12a) is ungrammatical. That is, *prima facie*, the sentence does not violate any apparent conditions.

- (12) a. \*[Kai<sub>i</sub>-no ie]-ni        kare-ga<sub>i</sub> ita.  
          Kai-Gen house-Loc he-Nom was  
          ‘He was at Kai’s house.’
- b. ?[Kare<sub>i</sub>-no ie]-ni        Kai-ga<sub>i</sub>     ita.  
          He-Gen house-Loc Kai-Nom    was  
          ‘John was at his house.’

### 6.3 Analysis

The evidence presented in the previous section seems to directly contradict the evidence presented in Chapter 2. Recall that in Chapter 2, I showed that the Nominative phrase in the unaccusative construction is obligatorily in a position c-commanded by the Locative phrase. One piece of evidence for this proposal in chapter 2 came from the relative scope relations, and the difference between the unaccusative and passive

constructions in these respects. The evidence from binding presented in the previous section argues for the opposite conclusion: That the Nominative phrase in the unaccusative construction c-commands into the Locative phrase.

The paradox can be given a natural account if we assume that there is an operation that splits the features of the Nominative phrase in the unaccusative construction in such a way that the feature that is relevant for the relative scope relations remains in-situ, whereas the feature that is relevant for the binding relations resides above the Locative phrase, in the domain of TP. Feature movement, in the sense of Chomsky (1995) is such an operation, and I pursue an analysis of the paradox using this concept below.

Feature movement is an operation that is triggered by a feature. Chomsky (1995) proposes that every movement is driven by a feature. More specifically, Chomsky proposes that a formal feature in the target attracts the closest matching feature. When a feature is attracted, the formal features of the attractee raise as a bundle to adjoin to the attractor.

Chomsky proposes that a feature is either interpretable or uninterpretable at LF: an interpretable feature “cannot be deleted and therefore remain accessible to the computation and visible at LF” (Chomsky 1995:281), whereas an uninterpretable feature must be erased by the interface (Chomsky 1995:280ff) . Let us assume that a feature is also strong or weak, following Chomsky (1993): a strong feature must be eliminated before Spell-out; otherwise, the strong feature surviving into the interface level causes the derivation to crash. According to Chomsky (1993:30), a strong feature that enters PF component causes the derivation to crash.<sup>4</sup> A strong feature, therefore, needs to be overtly checked, causing an overt displacement of an item with such a feature.

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<sup>4</sup>According to Chomsky (1995: 232ff) on the other hand, a strong feature must be eliminated immediately. Otherwise, the derivation cancels. This does not affect the analysis here.

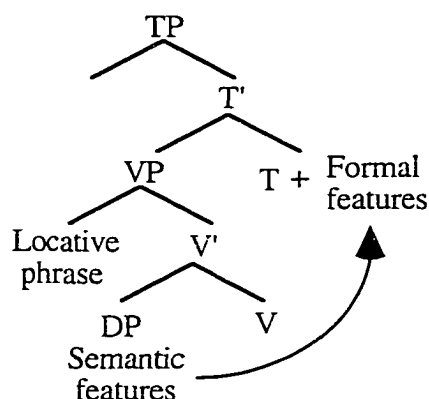
Whether the movement is overt or covert, it is triggered by a feature. The difference between the overt and covert movement is that in the former, the operation is followed by an additional operation which puts the rest of the lexical content of the moved formal features, phonetic and semantic features, close to the moved feature. Let us call this the repair strategy. This is why we see a displacement of an element when the movement is overt. When the movement is covert, on the other hand, the operation is not followed by the repair strategy, hence, we obtain a split of contents of a moved element. Let us assume that this is because PF does not tolerate a split of contents of a moved element, whereas LF does. Only this covert operation--pure feature movement without the repair strategy--can provide a solution of the paradox discussed above. I will show how this applies to the paradox in more detail below.

Let us suppose that a feature that is relevant for binding relation raises to T, whereas a feature that is relevant for scope stays in-situ, and that is why we observe a discrepancy between the quantifier scope relations and the binding relations.<sup>5</sup> I propose that this is due to the nature of the features involved. As discussed above, according to Chomsky (1995), when the movement is covert, a bundle of formal features raise, but the rest of the lexical content, semantic features, do not raise. Applying this idea directly, we conclude that a feature that is relevant for binding is among the bundle of formal features that raises to T, whereas a feature that is relevant for scope is left in-situ, being a semantic feature. From the raised position, the feature that is relevant for binding binds the anaphor in the Locative phrase. The semantic feature that is relevant for scope, on the other hand, takes narrower scope than the Locative phrase.

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<sup>5</sup>Lasnik (1995) presents argument against the claim that feature-movement obviates a binding condition A violation. I will come back to this point in section 6.3.2.

(13)



I will provide an additional argument for the claim I am making, that binding into the Locative phrase is mediated by a movement relationship between T and the internal argument/Nominative phrase of the unaccusative verbs, in the next section. Namely, I show that the feature movement involved in the unaccusative construction exhibits a Relativized Minimality/Minimal Chain Link type effect characteristic of movement.

### 6.3.1. Evidence for movement

Above analysis of the unaccusative construction in Japanese makes the following prediction: When there is another DP with a matching feature which is located closer than the Nominative phrase of the unaccusative construction, the raising of the Nominative phrase should be blocked. That is, if there is a movement of the relevant feature, the movement should exhibit the Relativized Minimality (Rizzi 1990)/Minimal Link Condition (Chomsky and Lasnik 1993) effect. I show two examples which violate Relativized Minimality/Minimal Link Condition, super raising, in (14). In (14a), *John* is raised to the matrix subject position from the most embedded clause. The sentence is ungrammatical because the movement of *John* skips a potential landing site, the position *it* occupies (or, when the feature responsible for the EPP effect triggers the

movement/merge of an item to the Spec of matrix clause, there is a closer item to the target that could move than *John*, namely, *it*, violating the Minimal Link condition) In (14b), *A man* raises to the matrix subject position from the embedded clause. It skips a potential landing site, namely, the position which is occupied by *there*, violating the Relativized Minimality (or, when the subject position of the matrix is filled, there is a closer candidate that could be moved, *there*, violating the Minimal Link condition).

- (14) a. \* $\text{John}_i$  seems that it is likely to have been  $t_i$  in the garden.  
 b. \*A man seems there to be  $t$  in the garden.

If we assume the theory of feature attraction, which will be discussed shortly, the closest element with the matching feature must be attracted for checking the feature that is triggering the movement in the target.<sup>6</sup>

The prediction—that the movement of the relevant feature exhibits the Minimality effect—is borne out, as shown in (17). Sentences in (17) are in the so-called Genitive-raising (or Possessor-raising) construction. Genitive-raising is an optional operation of some languages that affects DPs with an internal possessor, like *John's leg*, which is illustrated in (15).

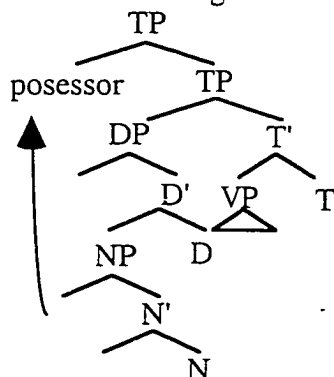
- (15) a. John-no asi-ga nagai.  
           John-Gen leg-Nom long  
           'John's legs are long.'  
 b. John-ga asi-ga nagai.  
           John-Nom leg-Nom long  
           'John's legs are long.'

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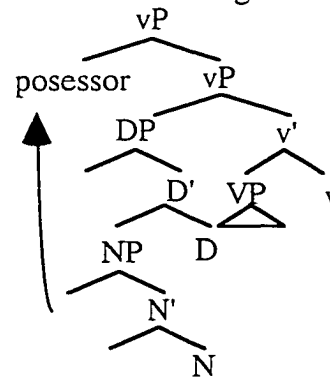
<sup>6</sup>Let us assume the definition of closeness as follows: If  $\beta$  c-commands  $\alpha$  and  $\tau$  is the target of raising, then  $\beta$  is closer to  $\tau$  than  $\alpha$ . (Chomsky 1995: 358).

In Genitive Raising, the possessor surfaces with the same Case marking as the possessee. In Japanese, Genitive-raising may take place only with Nominative Case-marked possessee, whereas in other languages, for example in Korean, Genitive-raising may also affect possessee with other Casemarking. Ura (1995) proposes that Genitive Raising is possible if D of the possessee does not license Genitive Case, and hence, the possessor raises to the Spec of higher projection whose head can enter multiple checking relations. For Genitive raising of the subject of a transitive clause in the Spec of TP, Ura proposes the structure in (16a) and for Genitive raising of an object in the Spec of vP the structure in (16b). I assume Ura's analysis with one change: I assume that the Genitive Raising is due to the characteristic of Japanese Nominative Case of DPs. Japanese Nominative Case feature of DPs can be licensed without erasing the matching feature of the licensing Head. Because the matching feature of the licensing Head does not get erased, it can license Nominative Case multiple times.

(16) a. Genitive Raising from Subject



b. Genitive Raising from Object



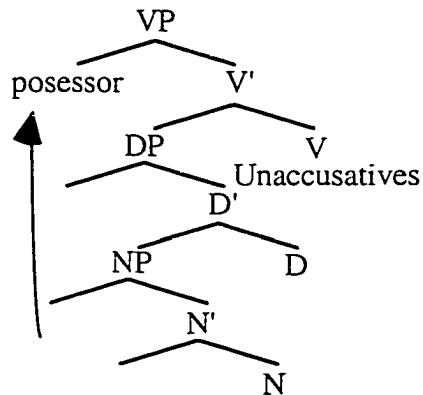
In the unaccusative construction, multiple DPs with Nominative Case may be licensed by the unaccusative verb, since the Nominative Case feature of an unaccusative verb does not get erased after licensing the Nominative Case of the Nominative phrase. Hence, in



(17), the possessor gets its Case licensed in the Spec of VP, headed by the unaccusative verb.<sup>7</sup>

- (17) a. \*[Otagai<sub>i</sub>-no ie]-ni Tsutomu-ga<sub>i</sub> [musuko to musume]-ga<sub>j</sub> tuita.  
 Each-other-Gen house-Loc Tsutomu-Nom son-and-daughter-Nom  
 arrived  
 'Tsutomu was such that his son and daughter arrived at each other's houses.'
- b. \*[Otagai<sub>i</sub>-no ie]-ni Tsutomu-ga<sub>i</sub> [musuko to musume]-ga<sub>j</sub> ita.  
 Each-other-Gen house-Loc Tsutomu-Nom son and daughter-Nom was  
 'Tsutomu was such that his son and daughter was at each other's houses.'

(18)



If the relevant feature of the Nominative phrase of the unaccusatives, *musuko to musume-ga* 'son and daughter' raises to T, we expect it be able to bind the anaphor contained in the Locative phrase. The anaphors in (17) are not bound, however, violating binding condition A. The example in (19) shows the same point. In (19), the R-expression that is inside of the Locative phrase and the pronoun *karera-ga* are coreferent. The example is ungrammatical. If the relevant feature of an NP raises from the Nominative phrase, there

<sup>7</sup>There is no way to tell whether the Nominative phrase of the Unaccusative construction raises to the Spec of VP headed by an Unaccusative verb, or it remains in-situ. If the former, Case of the Nominative phrase is licensed in the inner Spec of VP, and that of possessor in the outer Spec of VP. If the latter, it may be that the Case of possessor is licensed in the Spec of VP. For concreteness, I assume that the Nominative phrase does not raise to the Spec of VP in this thesis.

is no obvious violation, since the Nominative phrase and the R-expression are not coreferent. If the relevant feature raises from the possessor to T, on the other hand, the ungrammaticality of (19) is expected, since the feature in T and the R-expression in the Locative phrase are coreferent and the relevant feature c-commands T, causing the binding condition C violation.

- (19)      \**[John to Mary<sub>i</sub>-no    ie]-ni          karera<sub>i</sub>-ga [musuko to musume]-ga<sub>j</sub>*  
              John and Mary-Gen house-Loc they-Nom son and daughter-Nom  
              tuita.  
              arrived

The examples in (20) exhibit the same pattern as in (17) and (19). In (20), only *John to Mary* ‘John and Mary’ (possessor), but not the Nominative phrase *musuko to musume* ‘son and daughter’, can be the antecedent of *otagai* ‘each other’. If the raising of the relevant feature of the Nominative phrase, *musuko to musume-ga*, takes place at LF to T, we expect the Nominative phrase to be able to bind the anaphor in the Locative phrase. But as shown in (20), this is not the case.

- (20) a. *[otagai<sub>i/\*j</sub>-no    ie]-ni          [John to Mary]<sub>i</sub>-ga    [musuko to musume]<sub>j</sub>-ga*  
              each other-Gen house-Loc John and Mary-Nom son and daughter-Nom  
              tuita.  
              arrived  
              ‘John and Mary were such that son and daughter arrived at each other’s  
              houses’  
              each other = John and Mary  
              NOT: each other = son and daughter
- b. *[otagai<sub>i/\*j</sub>-no    ie]-ni          [John to Mary]<sub>i</sub>-ga    [musuko to musume]<sub>j</sub>-ga*  
    ita  
              each other-Gen house-Loc John and Mary-Nom son and daughter-Nom  
    was  
              ‘John and Mary were such that son and daughter were at each other’s houses’  
              each other = John and Mary  
              NOT: each other = son and daughter

It is not the case that *musuko to musume-ga* ‘son and daughter’ cannot be the antecedent of the anaphor, as illustrated in (21).

- (21) [Otagai-no ie]-ni [musuko to musume]-ga tuita.  
 Each-other-Gen house-Loc son and daughter-nom arrived  
 ‘(My) son and daughter arrived at each other’s houses.’  
 (cf. [Musuko-to musume]-ga [otagai-no ie]-ni tuita.  
 son-and daughter-Nom each-other-Gen house-Loc arrived  
 ‘(My) son and daughter arrived at each other’s houses.’)

I suggest that these data in (17)-(20) show the blocking effect: the existence of closer Nominative DP (possessors) blocks the feature raising from the further DP (Nominative phrases). This is reminiscent of the Relativized Minimality/Shortest Attract nature of movement, discussed above. The ungrammaticality of (17) is predicted if we assume that the relevant feature of DP that is closest to T gets triggered to move. This follows directly if we assume the definition of closeness from Chomsky (1995: p358) shown below.<sup>8</sup>

- (22)  $\beta$  is *closer* to the target K than  $\alpha$  if  $\beta$  c-commands  $\alpha$ .

According to the definition of closeness in (22), the outer Spec is closer than the inner Spec, since the former c-commands the latter. If the operation Attract behaves in such a way to trigger the movement of the closest matching feature, since the outer Spec is closer than the inner Spec, when the target, T, attracts the relevant feature, the closest one, which is the one in the outer Spec, gets attracted.

(23) shows that when the possessor is marked Genitive (hence, remains inside of the DP Case-marked Nominative), the binding of the anaphor by *musuko to musume* is possible, which, again, shows that it is the possessor Case-marked Nominative that

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<sup>8</sup>Richards (1997:116) gives evidence for this definition of closeness for multiple A'-Specs.

blocks the raising of the relevant feature from the Nominative phrase in the Genitive-raising structure.

- (23)      [Otagai-no          ie-ni          [Tsutomu-no musuko to musume]-ga tuita.  
              Each-other-Gen house-Loc Tsutomu-Gen son and daughter-Nom arrived  
              'Tsutomu's son and daughter arrived at each other's houses.'  
              (with the reading that T's son arrived at T's daughter's house, and T's daughter  
              arrived at T's son's house)

These facts are reminiscent of the Minimality effect of movement: the closest element moves to the target. Hence, this supports the idea that there is a movement operation involved in the construction under consideration.<sup>9</sup>

### 6.3.2. Why raises covertly?

If the movement of a feature takes place, what drives the movement? As discussed above, a feature raises when it is pulled up by a matching feature in a functional head such as T. In addition, it is possible for a DP to raise for its own requirement, namely, Case, as discussed in Chapter 2, 3, and 4. In Chapter 2, we saw that the Nominative phrase of the passive construction raises to the Spec of a higher projection to get its Case licensed. I will assume below that the movement can be driven by either the target or the moved element, in this chapter.

Note that this is not an uncontroversial assumption. Within the Minimalist program, movement is assumed to take place only if it is forced (Last Resort) (Chomsky 1986, and the subsequent work within the Minimalist Program.) The question is, what forces the movement? There are three possibilities: only an unchecked feature in the

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<sup>9</sup>In fact, it suggests that it is one of the features of the target that triggers the movement of the Nominative phrase, rather than one of the features of the Nominative phrase. Were one of the features of the Nominative phrase responsible for the raising, we might expect the lower features to be able to raise to the target, and as a result, the lower DP should be able to be the antecedent of the anaphor in the Locative phrase. The fact that the lower DP cannot be the antecedent of the anaphor, as shown in (20) and (21).

moved item drives the movement, only an unchecked feature in the target, or both. Chomsky (1993) proposes that movement takes place only to satisfy the morphological requirement of the moved item (Greed). This is the first possibility above. According to this view, an unchecked feature of the target cannot motivate the movement, even if this unchecked feature of the target would cause the derivation to crash. Let us consider ungrammatical examples in (24). According to Chomsky (1993), the Case feature of *a strange man* is satisfied within PP. Hence, *a strange man* cannot be triggered to move.

- (24) a. \*There seems to a strange man [that .....].  
 b. \*There seems to a strange man to be two men in the garden.

In (24), *There* is in the Spec of matrix TP. Let us assume that *there* checks the D-feature and Case features of T (Lasnik 1992, 1995). The phi/agreement features of T are left unchecked. If the phi/agreement features of T were able to drive the movement of the matching feature, they would do so from the closest DP. In (24b), for example, the phi/agreement features of T are third person singular. This can be seen on the verbal morphology. The phi/agreement features of T attract the closest matching features, which are the phi/agreement features of *a strange man* in PP. The Case feature of *a strange man* is checked within PP by P. Assuming that an interpretable feature does not get erased even if it is checked, and that the phi/agreement features of a DP are interpretable, the phi/agreement features of *a man* remain accessible even if they were licensed within PP. Hence, the features in T should be able to attract the closest matching features from *a strange man*. The sentence in (24b) is ungrammatical, however, showing that something goes wrong with the derivation described above.<sup>10, 11</sup>

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<sup>10</sup>If we change the example in (24b) minimally and change the verb to agree with *two men*, the sentence becomes grammatical, as shown in (i).

(i) There seem to a strange man to be two men in the garden.

Lasnik (1994, 1995), on the other hand, argues that an item could move to satisfy the feature of the target (Enlightened Self Interest). That is, movement could be triggered by the target's unchecked feature. In much the spirit of Enlightened Self Interest, Chomsky (1995) proposes a feature-attraction theory of Last Resort. According to this theory, only the unchecked uninterpretable feature of the target can be the driving force for movement by attracting the matching feature of a DP. This approach, as Lasnik (1995b) suggests, overcomes some problems that earlier approaches encounter, which will be discussed in the next section.

Let us go back to the original question: what triggers the movement of the formal feature of the Nominative phrase? Formal features include the Case-,  $\Phi$ - and D-features. According to the Attract-theory of movement, this is not an issue: only the target attracts. In this thesis, I propose that there is evidence that both target and the moving element can trigger movement (Enlightened Self Interest). Hence, for the sake of discussion, let us consider the possibility that it is one of the formal features of the Nominative phrase that triggers the movement. Among the Case-,  $\Phi$ - and D-features, the Case feature is not a candidate, since Nominative Case of the unaccusative Nominative phrase is licensed overtly. In Chomsky's (1995) system, Case features of DPs are uninterpretable, hence, when they are licensed, they must be erased. If this is the case, then, Nominative Case of the Nominative phrase does not exist at LF. How about  $\Phi$ -features and D-feature? According to Chomsky (1995),  $\Phi$ -features and D-feature of a DP are interpretable. Interpretable features do not need to be checked, hence,  $\Phi$ -features and D-feature should not trigger movement since they do not need to be licensed at all.<sup>12, 13</sup>

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<sup>11</sup>According to Chomsky (1993), what goes wrong in the examples in (83) is that there are freestanding *there*, which satisfy all the morphological requirements, hence, they are legitimate LF objects. The freestanding *there*, however, does not receive semantic interpretation, hence, the sentence becomes "semigibish".

<sup>12</sup>Following (Chomsky 1995: 280), I assume the following definitions:

Since the formal features of the Nominative phrases do not seem to be triggering the movement, independent of the specific theory we assume, let us consider the features in T next. T also has the Case-,  $\Phi$ - and D-features. To decide which one of the features is triggering the movement, let us compare this construction and a similar construction in English, *there*-construction. *There*-construction shares a property of the construction we are concerned with. Specifically in both constructions, the verbs are unaccusative. It seems reasonable, hence, to compare these two constructions.<sup>14</sup>

### 6.3.3 Null-expletive approach

It has been claimed that the associate of *there* in *there*-construction in English has to raise to the position overtly occupied by *there* (Chomsky 1986, 1991, 1993, Lasnik 1992, 1995, among others). This is so assumed to account for the agreement effect with this construction. In *there*-construction, the verb agrees with the associate, as shown in (25). In (25), the verbs agree with the number of the associates of *there*, which are italicized in (25). (25b) is ungrammatical because the associate of *there* is *a man* (singular), but the verb shows the plural agreement. In (25c), on the other hand, the associate is *two men* (plural) but the verb shows the third person singular agreement.

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(i) If a feature is “deleted,” it is invisible at LF but accessible to the computation.

(ii) If a feature is “erased,” it is eliminated entirely so that it is inaccessible to any operation, not just to interpretability at LF.

<sup>13</sup>One potential argument that it is not the formal features of the Nominative phrase that trigger the movement could come from the difference between the Unaccusative construction and the Nominative Object construction. I argued in Chapter 3 that the Nominative Case-feature of the Nominative Object is licensed by the stative verb within the minimal domain of the verb. It does not raise to T, at any point in the derivation. If we could find a stative verb which takes a Locative phrase as one of the arguments, in addition to a Nominative Object, we could test whether the Nominative Object can bind into the Locative phrase. The prediction is that it cannot, since the Nominative Object should not raise above the Locative phrase at any point in the derivation. I have not been able to find a stative verb which takes both a Locative phrase and an object as its internal argument, however.

<sup>14</sup>There is apparent counterevidence against the claim I have just made, namely, that covert feature movement is sufficient for binding. I will come back to this point in the next section.

This is why (25b) and (25c) are ungrammatical. In (25a) and (25d), the number of the associates, *a man* (singular) and *two men* (plural) match that of the verbs.

- (25) a. There is *a man* in the room.  
 b. \*There are *a man* in the room.  
 c. \*There is *two men* in the room.  
 d. There are *two men* in the room.

Let us assume, following Chomsky (1995), that the expletive *there* does not have Case or Agreement features and it has only the D-feature, first. When the expletive *there* is included in the Numeration, it occupies the Spec of TP to check off the D-feature of T (Chomsky 1995). The D-feature is a strong feature, and being a strong feature, it has to be licensed overtly. When the numeration includes the expletive *there*, the D-feature is checked off by *there*. When the numeration does not include the expletive, the D-feature is checked off by the closest element which has the matching D-feature, triggering the element to raise to the Spec of TP in overt syntax. Let us follow Martin (1992) and Groat (1994) and assume that *there* does not have agreement features: it has only the D-feature (or EPP feature).<sup>15</sup> Since the agreement features of T do not get licensed by *there*, the associate of *there* raises to T at LF to check the rest of the formal features of T.<sup>16</sup>

There have been three kinds of proposals with respect to the raising of associate to the position of *there*: movement of the associate as a substitution operation to the Spec of TP, movement of the associate as an adjunction to *there*, and the feature movement analysis. As mentioned above, the feature movement analysis overcomes problems that

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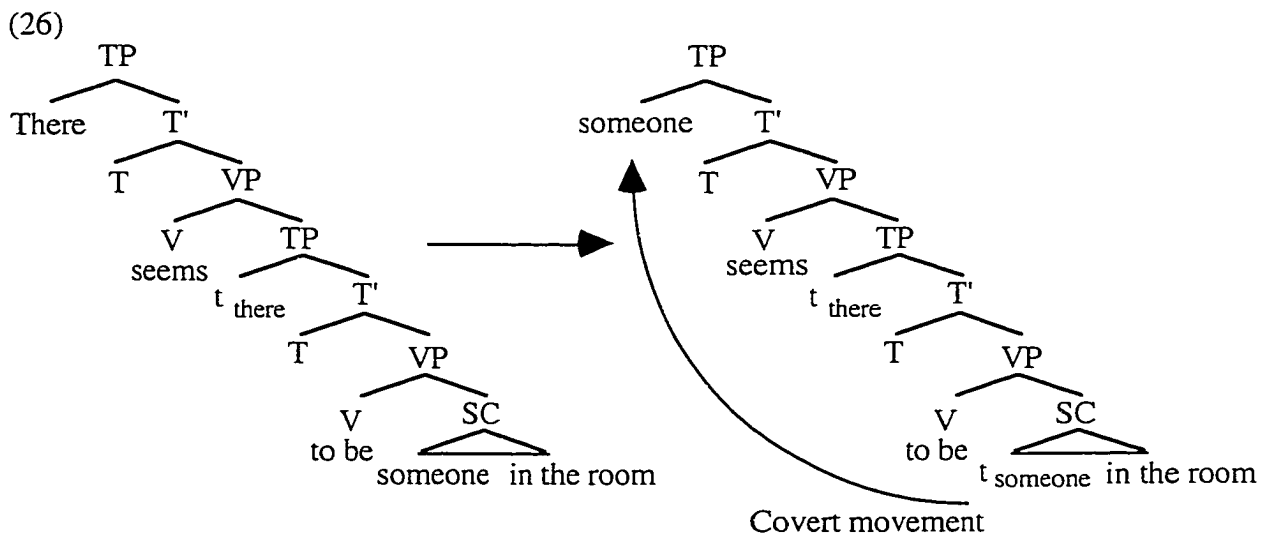
<sup>15</sup>I assume that *there* does have Case, and that is why it must appear in Case licensing position.

<sup>16</sup>Whether Case feature of the associate DP is still available or not depends on the theory, as can be seen in Chapter 2. According to Belletti (1988), both inherent and structural Cases can be assigned to a single DP. If this is correct, an associate of *there* gets its inherent Case licensed in-situ, while it raises to the Spec of TP to get its structural Case licensed.



the first two approaches encounter: scope relation between raising predicates and the associates of *there*, and the binding, which will be clarified later. Let us briefly discuss the first two analyses and the problems they encounter. I will then discuss the third approach and show that it does not encounter the same problem as the first two approaches.

The first approach, which I will call the substitution analysis, says that the movement of the associate is a substitution operation. According to the substitution analysis, the associate substitutes into the position *there* occupies overtly, namely, the Spec of TP. This is because *there* has to be deleted by LF to avoid the Full Interpretation (FI) violation, because expletive-*there* does not have semantic import (Chomsky 1986). If this is the case, then the expletive will delete at LF, and movement by the associate of *there* to the Spec of TP (required by satisfaction of EPP) takes place, covertly.



If the movement by the associate of *there* is substitution, two problems arise, however, as pointed out by Lori Davis (a personal communication, cited in Lasnik 1992; see also Lasnik 1992). Consider the examples in (27). It is well-known that the sentence in (27a) is not ambiguous like (27b) is. In (27a), the predicate *seems* takes wide scope

over the existential quantifier, *someone*, and the other scope relation is not available. In (27b), on the other hand, both readings are available.

- (27) a. There seems to be someone in the room  
           seems > someone  
           \*someone > seems
- b. Someone seems to be in the room  
           seems > someone  
           someone > seems

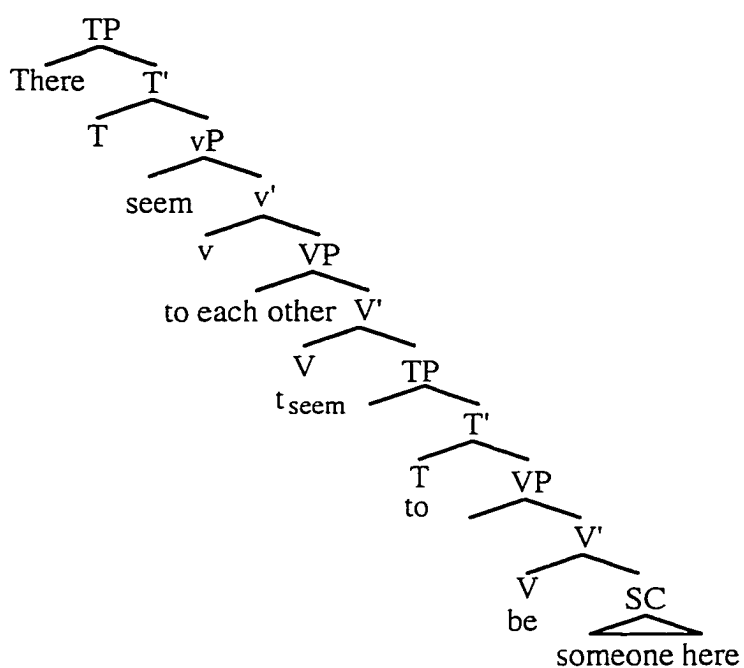
At LF, however, these two sentences should have an identical representation (Chomsky 1989, 1993, among others) if the movement by the associate is a substitution. This is evident when you consider the LF structure of (27a) shown in (26) and the example in (27b). It seems to be a puzzle, then, that the examples in (27a) and (27b) have different scopal relations between the predicate *seems* and *someone* if the scope relation among quantificational expressions is determined by LF structure.

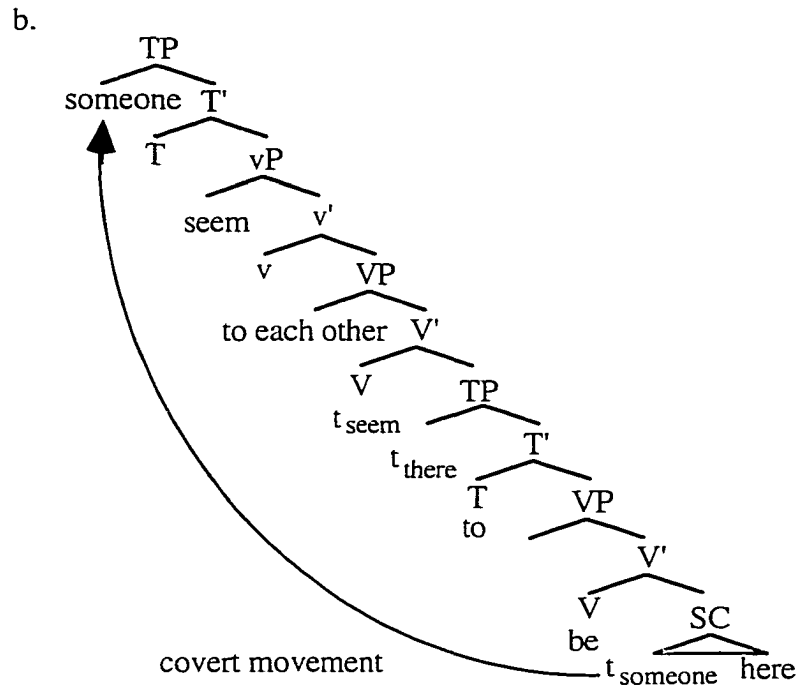
The substitution analysis makes a wrong prediction in the sentences involving anaphor binding, as in (28), as well. In (28a), the potential antecedent for the anaphor *each other* is the associate of *there*. At the point of Spell-out, as you can see, the associate has not been raised. In (28b), on the other hand, since the numeration does not include the expletive *there*, the Nominative phrase has raised to the Spec of matrix TP overtly. In this example, the anaphor is c-commanded by the antecedent in the surface structure. If the movement of the associate of *there* is a substitution, however, these two sentences should have the same LF configuration. (29b) is an LF structure of (28a). In (29b), the antecedent *two men* raises to the Spec of TP covertly. From this position, the antecedent c-commands the anaphor in *to each other*. Assuming that LF is where the binding conditions are checked (Chomsky 1995, Lasnik 1995, among others), that there is a difference in grammaticality between (28a) and (28b) is a puzzle. This puzzle

implies that either LF is not the relevant level of representation where Binding conditions are checked, or the structure shown in (29b) is wrong, as pointed out in Lasnik (1992, 1995b), den Dikken (1995) among others.

- (28) a. \*There seem to each other to be two men here.  
 b. Two men seem to each other to be here.

- (29) a.



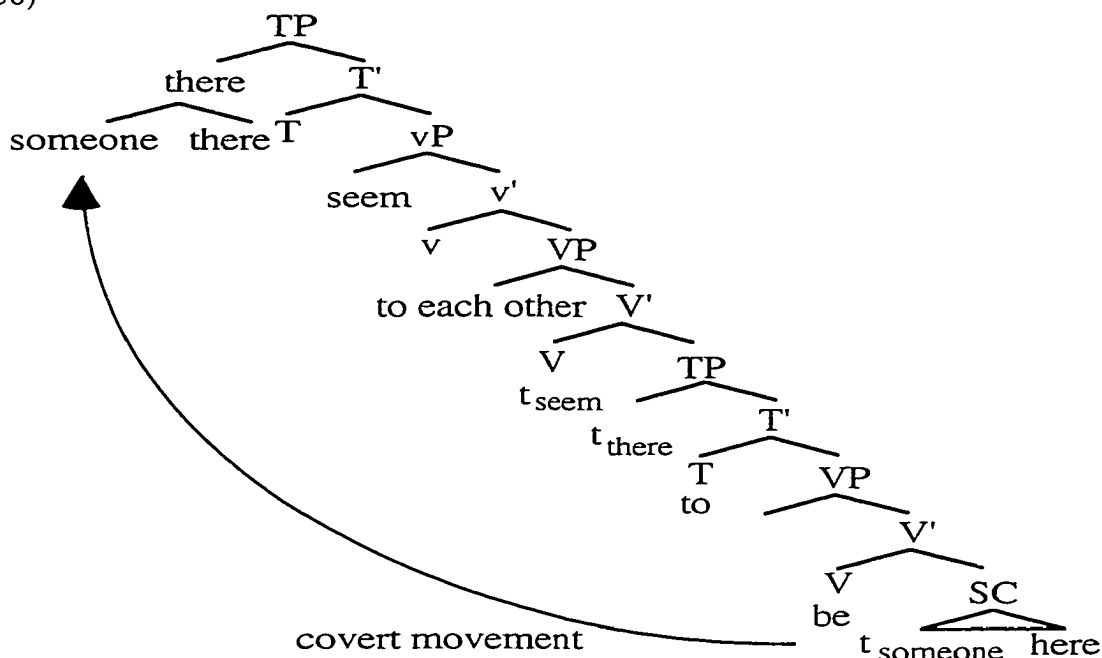


Conceptually, we want to maintain that the binding conditions apply only at LF, in the spirit of the Minimalist framework. Empirically, we see in this chapter that the Binding Condition A applies at LF. This is so because the movement of Nominative phrase in unaccusative construction in Japanese is covert.

The next approach of *there*-construction, the adjunction analysis, says that the movement of the associate is not a substitution into the Spec of TP, but rather, it is an adjunction to *there*. Chomsky (1993) and Lasnik (1992, 1995a) propose that *there* is an LF affix, and that it needs an element which adjoins to it to avoid the “stranded Affix constraint” violation. The proponents of this type of approach claims that this approach does not encounter the same problems as the substitution analysis: since the associate of

*there* adjoins to *there*, it will not c-command the predicate *seems*, or the anaphor, at LF (Chomsky 1986).<sup>17</sup>

(30)



Even though this approach is supposed not to encounter the same problem---the scope relation between the predicate and the associate--- as the substitution analysis, it is not clear if it does not, as Lasnik (1995b) points out. Recall that the reason the adjunction analysis is supposed to be able to avoid the problem is because from the adjoined position, the associate of *there* does not c-command the predicate, hence, is predicted not to have wider scope than the predicate. According to the theory of adjunction in May (1985), however, the adjoined item inherits the c-command relation that the adjoined item had before adjunction. That is, since *there* c-commands the predicate before adjunction,

<sup>17</sup>The data Chomsky (1991:443, (46))) are shown below:

- (i) a. I haven't met many linguistics students.  
b. There aren't many linguistics students here.

Claim is that (ia) is scopally ambiguous, whereas in (ib), *many* unambiguously has narrow scope.

the associate of *there* c-commands the predicate as well, after adjunction. Also, if movement operation moves an item to a position which c-commands the trace position (Chomsky 1993), the movement of the associate, by definition, is to a position that c-commands the original position of the associate. Hence, the problem with the associate necessarily taking narrow scope than the predicate remains a problem with the adjunction analysis.

Let us now discuss the feature-movement analysis of the *there*-construction. Recall that according to the Attract theory of movement, the feature of the target attracts the closest matching feature in DP. Furthermore, the feature that triggers movement is one of the formal features of the target, and the semantic features do not raise along with the formal features (unless the attracting feature is strong, hence, triggers overt movement of the formal features of the DP; if the features raise overtly, the movement is followed by a repair strategy which puts the rest of the lexical content of the DP in the local domain of the moved features, for PF reasons). Chomsky (1995) and Lasnik (1995b) argue that this nature of the feature movement gives a straightforward explanation for the scope facts that the first two approaches had problems with. Consider the example in (31). Overtly, the associate stays within the embedded clause. At this point, the predicate c-commands the associate. At LF, the formal features of the associate raise to the target, T. This operation does not move the semantic features of the associate, hence, the Quantificational feature, being a semantic feature, does not raise.

- (31)        There seems to be someone in the room  
               seems > someone  
               \*someone > seems

Another problem, which involves the binding possibility of the anaphor *each other* in PP by the associate, can be solved in similar fashion. Lasnik (1995) proposes

that the anaphor in PP cannot be bound by the associate because the relevant feature for the binding relation does not raise covertly to T. Since the relevant feature of the associate remains below the PP, the anaphor is not c-commanded by the relevant feature of the associate, hence, binding condition A cannot be satisfied at LF.

- (32) \*There seem to each other [to have been some linguists given good job offers].

((40) in Lasnik (1995b))

If it were the case that the Japanese unaccusative construction is analogous to *there*-construction in English, we expect the same properties in these two constructions with respect to the scope relation between the associate and the predicate, and binding into the PP. As we saw in Chapter 2, Japanese unaccusative construction has a property which resembles that in English. Namely, the quantifiers take scope at the surface position. The data in this Chapter involving the binding into the Locative phrase, on the other hand, differ from the English case in (32): in Japanese, the Nominative phrase can bind into the Locative phrase, even when the Nominative phrase does not c-command the Locative phrase overtly.

This difference in the binding relation leads us to conclude that the unaccusative construction in Japanese must be different from the *there*-construction in English. To account for the data in Japanese and English, I make the following proposals. First, there is nothing in the Spec of TP overtly in Japanese. Second, the relevant feature for EPP in T, the D-feature, is weak in Japanese. Third, the difference between English and Japanese, then, is that in English, the D-feature of the associate does not raise covertly, since the D-feature of T is licensed overtly, hence, it does not exist at LF. In Japanese, on

the other hand, the D-feature of the Nominative phrase raises, since the checking of the D-feature does not happen overtly, the Spec of TP being empty.<sup>18</sup>

### 6.3.4 Overtly Empty Spec of TP

In English, the D-feature of T must be licensed overtly. This is shown by the fact that the Spec of TP must be filled overtly in this language (EPP). In other words, that there is an element in the Spec of TP overtly in English shows that the EPP must be satisfied in English. In Japanese, on the other hand, I proposed that there is nothing in the Spec of TP: EPP is not satisfied in the unaccusative context. Could it be the case that there is nothing in the Spec of TP throughout the derivation? That is, does Japanese have EPP? I propose that it does, and this is why we find the difference between English and Japanese with respect to the binding into the Locative phrase by the associate.

Let us assume that the D-feature in Japanese is weak. This implies that the D-feature has to be licensed only at LF. By an Economy condition, Procrastinate, the licensing of the D-feature waits until LF, and as a result, the D-feature of the Nominative phrase in the unaccusative construction is attracted to T only at LF. If the D-feature is where the referentiality resides, at LF, the D-feature, which is now in the position where it could c-command the anaphor in the Locative phrase, licenses the anaphor, satisfying the Condition A at LF.<sup>19</sup>

I am making a crucial assumption that only the attracted features raise, which is different from the assumption in Chomsky (1995; ch4). Chomsky (1995) assumes that if one of the formal features is attracted by some feature in the target, all the formal features

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<sup>18</sup>This view differs from Chomsky's (1995) assumption that the formal features, as a feature-bundle, raise.

<sup>19</sup>I assume that *there* in English consists of the D-feature (Groat 1995, Martin 1992). I do not assume that *there* is referential, however. What we have to say, then, is if an NP/DP refers to something, the referentiality resides in the D-feature.



raise along with it.<sup>20</sup> What I assume, on the other hand, is that “Attract-F” means that only the attracted feature raises. That is, in Japanese, the D-feature of T has to be licensed covertly, hence, the D-feature of the closest DP is attracted to license the D-feature of T. This is not the case in English, however, since the D-feature has been already licensed overtly. Having already been licensed overtly, the D-feature of T does not attract the D-feature of the associate at LF, hence, the D-feature of the associate does not raise covertly. As a result, the D-feature that could license the anaphor in the Locative phrase never makes it to a high enough position to bind the Locative phrase.

Note that the assumption that the only feature that is triggered to move, rather than that the formal features always move together as a bundle, is not a conventional assumption. As far as I am aware, however, there is no empirical evidence to show that the formal features always raise as a bundle. There is some suggestive evidence to show that the Case and phi/agreement features seem to be licensed together, or put differently, phi/agreement features of a DP can be triggered to move only if the Case feature is still available for that DP. Consider (33).

(33) \*There seems to a man to be two men in the garden.

In (33), the phi/agreement features of T attracts the closest matching feature. The closest matching feature is the one in *a man*. What goes wrong with (33)? In other words, why can't the phi/agreement features of *a man* raise to check the matching features in T, if phi/agreement features of DPs are interpretable, hence, do not get erased and are

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<sup>20</sup>Chomsky (1995) assumes that the whole formal feature bundle moves at LF because “There are strong empirical reasons for assuming that Move F automatically carries along FF(LI), the set of formal features of LI.” He, however, does not provide any empirical evidence for this claim, and hence, it is not possible for me to evaluate his claim here.

accessible at the interface? The reason could be that the phi/agreement features of *a man* cannot raise to T because the Case feature of *a man* is checked within PP.

The question, however, is whether we have a reason to assume that the D-feature as well raises together with other formal features when the D-feature itself is not the reason for the movement to take place. As long as there is no evidence against the view that the D-feature may not move when the target does not have the D-feature that has to be licensed, I will continue to assume that the D-feature on one hand and the phi/agreement and Case features on the other hand may be divorced.

#### 6.4 Conclusion

In this chapter, I brought up a paradox: In Chapter 2, I argued that the Nominative phrase of the unaccusative construction does not raise to the Spec of TP because unaccusative verbs license Nominative Case of their internal arguments. This was shown using the scope relation between the Nominative phrase and the Locative phrase. According to the scope relation, the Locative phrase c-commands the Nominative phrase unambiguously when they appear in the Locative-Nominative order. In this chapter, on the other hand, I showed that the Nominative phrase c-commands the Locative phrase, using the anaphor binding test. We see that the antecedent in the Nominative phrase binds the anaphor in the Locative phrase, even when they are in the Locative-Nominative order. This is a paradox because traditionally, both quantifier scope and anaphor binding relations are used to test for the same structural relation, namely, c-command.

I have proposed in this chapter that the D-feature of the Nominative phrase raises covertly. This is because the D-feature (EPP) in Japanese is weak. Being weak, it does not have to be satisfied overtly, hence, waits until LF (Procrastinate) to be satisfied.

As evidence for this proposal, I have provided one construction in which the D-feature of the Nominative phrase of the unaccusative construction does not raise to T, when there is a closer D-feature than the Nominative phrase. In the Genitive-raising construction, the potential antecedent in the internal argument of the unaccusative verb does not bind the anaphor in the Locative phrase, in contrast with the regular unaccusative construction. I argued that this is the case because there is another Nominative Casemarked DP closer to T, namely, the possessor, and this is attracted by the D-feature of T. As a result, the D-feature of the Nominative phrase does not raise to T. That is, the D-feature of the Nominative phrase never raises high enough to bind the anaphor in the Locative phrase.

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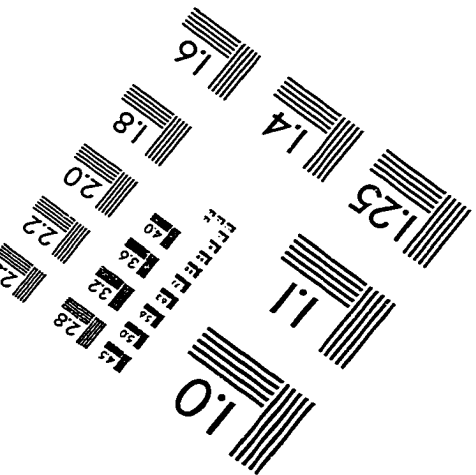
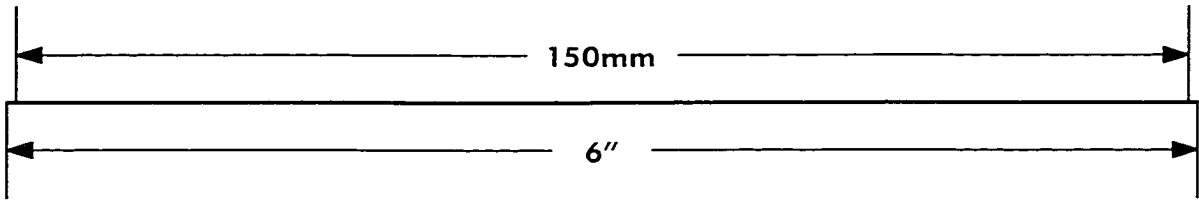
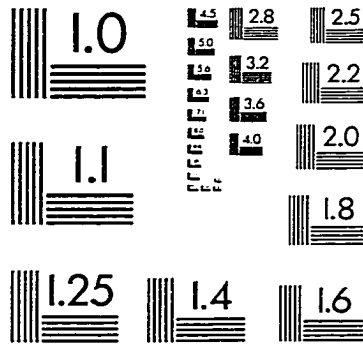
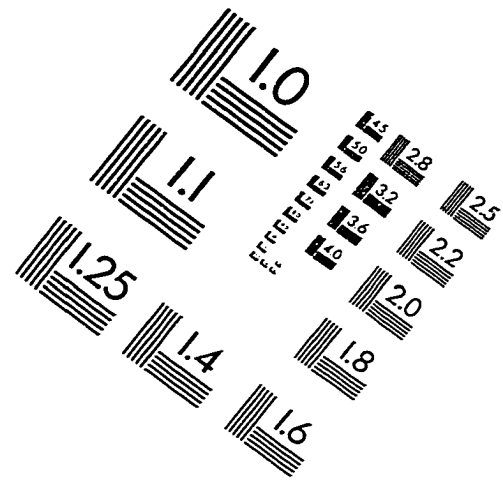
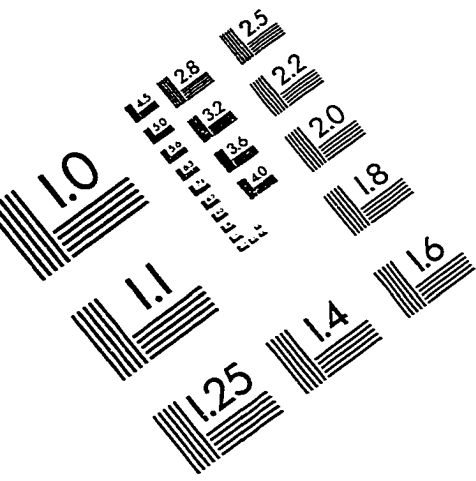
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